Solutions Catalogue

LIFE SCIENCES

www.ansell.com

Ansell

Protecting workers in all of their activities, **no matter where they are or which industry they work in.** That is what we do!

TO OUR VALUED CUSTOMERS

Every day workers within the Life Sciences industry around the world use protective solutions for personal protection, or to protect their vital research and the essential products they are manufacturing.

They place their safety and the integrity of their products in our hands, as they rely on Ansell's quality products to provide the personal and product protection they need.

With over 125 years of experience, we take our customers' trust very seriously. With dedicated Research, Development, Quality and Regulatory Departments, and through the use of advanced technologies and extensive testing, we work tirelessly to ensure that our solutions are meeting the most stringent standards and regulations. Our commitment to safety, and our quality and differentiated solutions is driving our leading global position in hand, arm and body protection enabling us to become the preferred supplier in Europe, the Middle East, Africa and beyond.

In this brand-new catalogue we proudly present our full portfolio of Life Sciences product & PPE protection solutions for hand, arm, body and eye, including several newcomers – one offering true clean and sterile cut resistance. Our portfolio around our key brands BioClean™, TouchNTuff®, MICROFLEX® and AlphaTec® offer site-wide solutions to meet customer needs when facing contamination risks and chemical hazards within cleanrooms, controlled environments and laboratory environments.

In addition to this comprehensive product overview, our sales and customer service teams will be delighted to provide expert know-how and advice, explaining how our solutions support to improve your organisations' safety, productivity and cost performance in the best possible way. AnsellGUARDIAN®, our proprietary service, can also help to select the right protective equipment solution to improve overall business performance, contact us to arrange an assessment to evaluate your needs.

Enjoy your journey through our world of protection!

Kind regards,

Rikard Froberg
Chief Commercial Officer EMEA-APAC &
Global AnsellGUARDIAN®

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WHY ANSELL?

- Ansell Brands
- AnsellGUARDIAN®

Ansell

A WORLD LEADER IN PERSONAL PROTECTION SOLUTIONS

This is how our business works: an overview of Ansell's global sales, products and supply chain infrastructure.

No. 1 or 2 position in all key segments globally

Provide protection solutions to **more than 25 specific industries**

Sell **10 billion+ gloves** per year

Average medical professional personally wears nearly **1,200 pairs of Ansell gloves** per year

Protect more than **10 million workers** each day

Over **100 new product** launches in the last 2 years

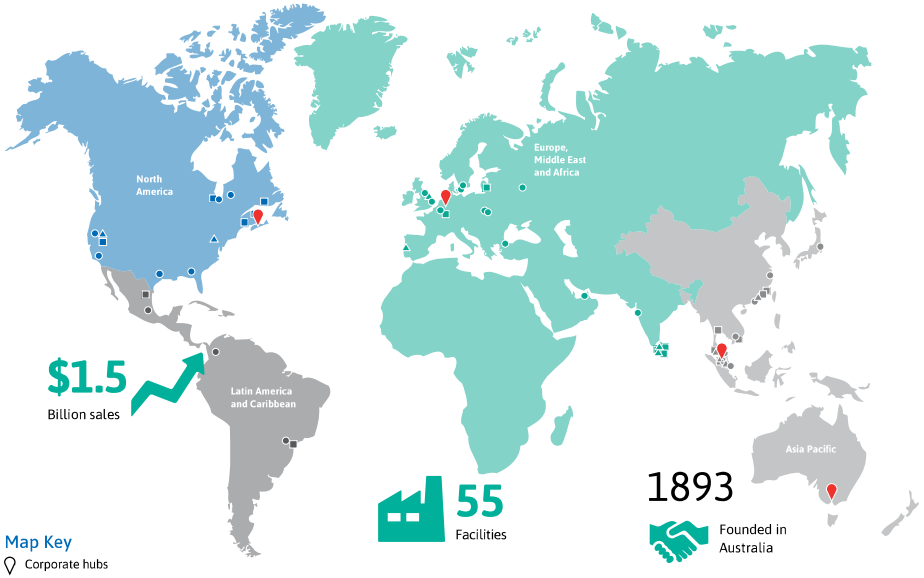
Dedicated to safety

Ansell has been protecting people for over 125 years. We have created specialised teams to focus on the personal protection needs of workers in many industries. Our employees are dedicated to developing solutions that are based on the hazardous conditions that workers face on the job every day.

Ansell is dedicated to worker safety: we provide a comprehensive range of gloves and clothing to meet all worker and product protection requirements.

12,000
Employees

200
R&D employees worldwide in 10 R&D Innovation Centers



$1.5
Billion sales

55
Facilities

1893
Founded in Australia

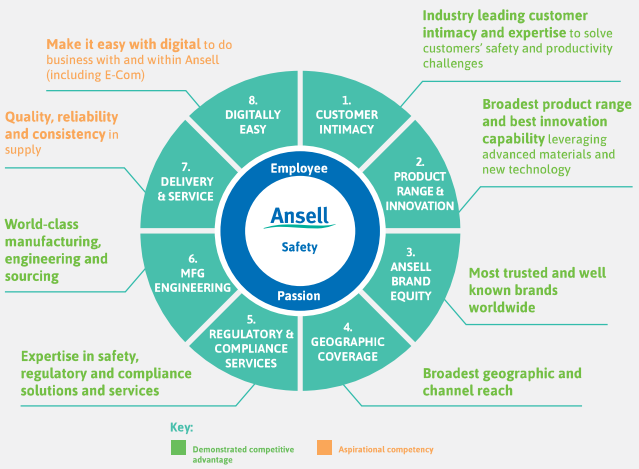
Map Key
- Corporate hubs
- Offices
- Manufacturing and distribution facilities
- Research and development facilities

WHY ANSELL?

We are innovators striving to create advanced solutions and technology that will solve the problems of workers, creating a safer and more protected world. Our vision is of a world where people enjoy optimal protection against the risks they are exposed to. Whether at work or outside the workplace, people require the right protection for the right situation. After all, what better guarantee is there of increased safety, security and productivity than adequate protection?

8 Dimensions of Differentiation

By leveraging the unique and well defined strengths of Ansell, we deliver better solutions to customers



OUR RESPONSIBLE AND RESPONSIVE STRATEGY & PURPOSE

Our Responsible and Responsive Strategy & Purpose illustrates how we are connecting care for the interests of all stakeholders to our business strategy.

Over the past several years, Ansell has transformed the ways in which we incorporate sustainability into our business practices, and we will continue to advance further in this area in the years ahead.

Better Society	Employees and wider workforce	Community	Business ethics	• We care about our people and safety is our top priority • We support our communities • We play fair and conduct business ethically
Better Environment	Water	Energy and carbon	Materials and waste	• We use natural resources with care • We work to continually lower our GHG emissions • We respect the local environment
Better Business	Customers	Suppliers	Investors	• We provide our customers with safety and productivity solutions • We demand the same high standards of our suppliers • We reward investors with long-term sustainable growth

ANSELL BRANDS

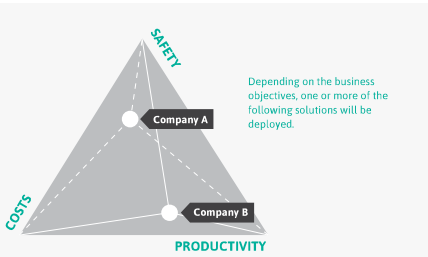
Our Life Sciences portfolio is composed of three core brands: BioClean™, MICROFLEX® and TouchNTuff®. Product offerings are comprised of versatile hand, arm and body protection solutions that provide superior comfort, performance and protection, no matter what industry or application. Consult our product index to view all products classified by brands (pg. 3).

Brand	Category	Positioning	Features and benefits
BioClean™	Single use hand, body & eye protection	BioClean™ gloves and garments offer the largest range of products that provide head-to-toe protection for the Life Sciences segment. They provide a range of protection solutions, from gloves to goggles to garments, for worker protection in controlled environments.	• Wide range of glove polymers processed and packed clean and available sterile or non-sterile • A number of gloves and garment materials tested against chemotherapy drugs for superior chemical protection • Eye protection solutions for non-critical and critical environments • Extensive cleanroom essentials accessories range including bags, equipment covers, pens and paper • Anti-fog autoclavable and single use goggle range
MICROFLEX®	Single use hand protection	MICROFLEX® disposable gloves go beyond protection to take worker comfort, performance and productivity to new levels through proprietary technologies that deliver improved grip, enhanced chemical resistance and ergonomic designs for a superior fit.	• Increased barrier integrity (0.65 AQL on many styles) • Enhanced strength and durability • Dual certification (EN 455 Medical and PPE) on many gloves • Wide polymer selection • Range of colours and sizes
TouchNTuff®	Single use hand protection	TouchNTuff® disposable gloves provide superior tactility and resilience for work in industrial, lab and controlled environments.	• Enhanced chemical splash protection • Broad clean/sterile offering • Silicone-free construction • Wide polymer selection
AlphaTec®	Chemical & liquid hand & body protection	AlphaTec® gloves and clothing provide complete assurance in chemical-risk environments.	• Chemical protection • Multi-hazard protection technology • Wide selection of materials and polymers • Supported and unsupported gloves • Multi-duty selection • Wet/dry grip options for gloves

AnsellGUARDIAN®

FOCUS ON SAFETY TO IMPROVE YOUR BUSINESS PERFORMANCE

AnsellGUARDIAN® is our proprietary service to help companies select the right personal protective equipment solution to improve their safety, productivity and cost performance.



An integrated approach

AnsellGUARDIAN® partners with industrial and medical organisations to address the challenges in today's PPE environment and deliver measurable safety and business improvements.

Safety/compliance

Personalised risk management solutions (industrial and chemical) and data-driven recommendations

Increased safety and compliance

Productivity

Best practice recommendations to optimise PPE dispensing, improve output and eliminate waste

Improved productivity

Costs

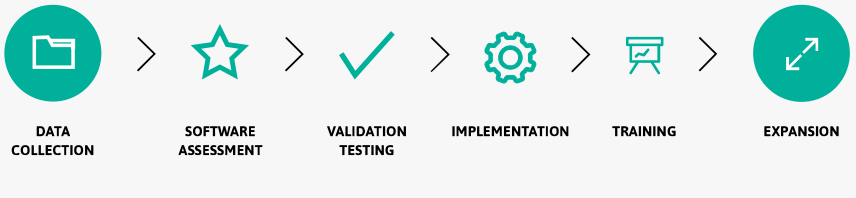
Business performance improvement/ implementation across 7 cost drivers that measure financial progress

Lower costs

For more information on AnsellGUARDIAN®, please visit **www.ansell.com/services**

WHAT'S THE PROCESS?

By focusing on the most relevant areas, AnsellGUARDIAN® can deliver best practice recommendations with the most impact for our customers' businesses. Our solutions can be implemented within a single application or entire site, locally or globally. We have the capability to consolidate data around different sites.



Proof points

Experience: More than 12,000 assessments conducted since 2010.

Results: Since July 2014, our recommendations have resulted in injury, reductions on an average of 65%, customers have decreased product styles by an average of 25%, and we have saved companies a total of $148 million, a $65,000 average.

Global: We operate in more than 55 countries.

Technology: Industry pioneer with the most advanced and proprietary technology and analytics.

Our operating principles

Partnership: While supplying safety solutions, we share our expertise to analyse, benchmark, implement and improve PPE-related operations and performance.

Adaptation: No matter what business, industry or application, we tailor and adapt solutions based on data-driven analytics.

Transformation: Full implementation of our recommendations to ensure the success of PPE change management initiatives.

Safety and Compliance

AnsellGUARDIAN® helps our customers to improve worker safety and ensure compliance with safety regulations among the workforce.

- **Reduced injuries by 65%***
- **Reduced 6,400 major recordable injuries***
- **Reduced 9,200 first-aid injuries***

Productivity

AnsellGUARDIAN® helps our customers to find the right PPE solution that allows for increased efficiency, better performance and improved productivity.

- **Decreased 2,100 references***
- **Decreased product styles by 25%***
- **Decreased SKUs by 10%***

Costs

AnsellGUARDIAN® helps our customers to reduce injuries and follow-up costs, thus optimising your cost performance.

- **24% cost decrease by standardisation***
- **$6.24 million savings in injury reduction***
- **$148 million total savings***

* Data based upon AnsellGUARDIAN® global surveys since 2014. Final results may vary
Source: AnsellGUARDIAN® global surveys database since 2014.

For more information on AnsellGUARDIAN®, please visit **www.ansell.com/services**

CHEMICAL GLOVE AND SUIT SELECTION SIMPLIFIED

AnsellGUARDIAN® Chemical simplifies the glove and suit selection process for your unique set of chemicals.

How AnsellGUARDIAN® Chemical works

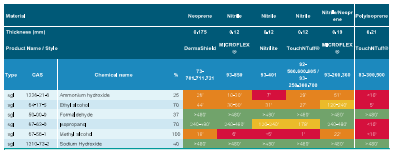
AnsellGUARDIAN® Chemical evaluates the resistance of glove and suit materials against your chemicals to offer a risk assessment with expected permeation breakthrough times. This assessment can either be carried out during a personal consultation with one of our AnsellGUARDIAN® specialists or online by using our chemical permeation database. As a result, selecting the right chemical glove and suit has never been easier.

CAS	Chemical Name	%
1336-21-6	Ammonium hydroxide	25
64-17-5	Ethyl alcohol	70
50-00-0	Formaldehyde	37
67-63-0	Isopropanol	70
67-56-1	Methyl alcohol	100
1310-73-2	Sodium Hydroxide	40

Material safety data sheet (MSDS)

Ansell GUARDIAN® Chemical

Software assessment



Evaluation

Simplification

YOUR BENEFITS

Safety | **Performance** | **Compliance**

An optimal solution for selecting the right chemical glove and suit

- Estimated permeation breakthrough times for both single and mixed chemicals
- Confidence that goes with knowing you are always selecting the right chemical product
- A comprehensive range of gloves and suits to cover workers' needs across different industries and applications
- Global sales, business support and availability of technical documentation

For more information on AnsellGUARDIAN®, please visit **www.ansell.com/services**

ANSELLGUARDIAN® PERSONALISED CHEMICAL ASSESSMENT ANYTIME

AnsellGUARDIAN® Chemical evaluates the resistance of glove and suit materials with your chemicals to offer a personalised assessment with expected permeation breakthrough times. **The AnsellGUARDIAN® Chemical database contains over 7,000 single chemicals and 17,500 mixed chemicals.** Over the past four years, our chemical experts have conducted over 20,000* assessments.

Gloves

Material			Neoprene	Nitrile	Nitrile	Nitrile	Nitrile/Neoprene	Polyisoprene
Thickness (mm)			0.175	0.12	0.12	0.12	0.19	0.21
Product Name / Style			DermaShield	MICROFLEX®	Nitrilite	TouchNTuff®	MICROFLEX®	TouchNTuff®
Type	CAS	Chemical name	%	73-701.711.721	93-850	93-401	92-500.600.605 / 93-250.300.700	93-260.360	83-300.500
sgl	1336-21-6	Ammonium hydroxide	25	26'	10-30'	7'	29'	91'	<10'
sgl	64-17-5	Ethyl alcohol	70	44'	10-60'	11'	27'	120-240'	5'
sgl	50-00-0	Formaldehyde	37	>480'	>480'	>480'	>480'	>480'	>480'
sgl	67-63-0	Isopropanol	70	240-480'	240-480'	120-240'	178'	240-480'	<10'
sgl	67-56-1	Methyl alcohol	100	18'	6'	<5'	1'	22'	<10'
sgl	1310-73-2	Sodium Hydroxide	40	>480'	>480'	>480'	>480'	>480'	>480'

Permeation Breakthrough Times (min)	
<10	Not Recommended
10-30	Splash Protection
30-60	Splash Protection
60-120	Medium Protection
120-240	Medium Protection
240-480	Good Protection
480	Good Protection

Permeation breakthrough times-$BT_{1.0}$

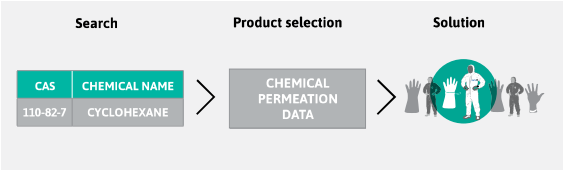
The $BT_{1.0}$ is the time taken (in minutes) for the chemical in question to be permeating through the material at a rate of 1.0 µg cm^{-2} min^{-1}. This can be determined using any of the following standard test methods: EN 374-3 and ISO 6529. It is commonly utilised mainly within the regions concerned with the EN and ISO standards.

Disclaimer: Permeation breakthrough times evaluate the time necessary for a chemical to pass through a glove or suit material. Recommendations are based on extrapolations from laboratory test results and information regarding the composition of chemicals and may not adequately represent specific conditions of end use. Synergistic effects of mixing chemicals have not been accounted for. For these reasons, and because Ansell has no detailed knowledge of or control over the conditions of end use, any recommendation must be advisory only and Ansell fully disclaims any liability including warranties related to any statement contained herein.

NEW DIGITAL SOLUTION

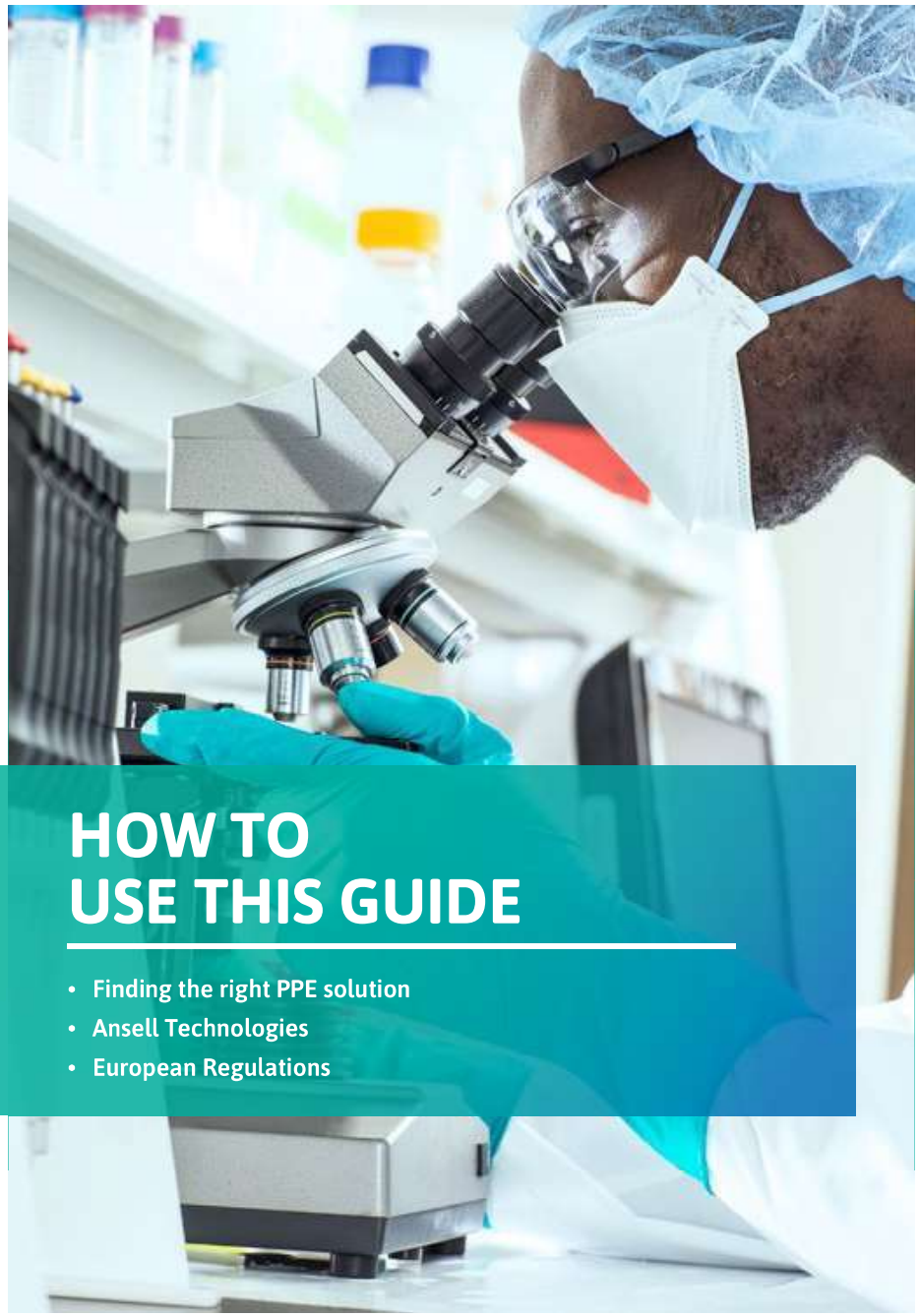
Powerful NEW digital tool allows easy access to chemical permeation data for hazardous substances, including ASTM, EN and ISO standardised lists of challenge chemicals.

Our new digital solution is designed to simplify the selection of Ansell hand and body protection solutions. This tool offers an instant visual evaluation and an easy-to-use search functionality including the unique Chemical Abstracts Service (CAS) number system. For specific chemical protection challenges, an expert assessment is also available to provide a simplified set of choices, drawn from our broad portfolio of chemical protection solutions.



* Source: AnsellGUARDIAN chemical database since 2014.

For up-to-the-minute chemical permeation data, please visit: **www.ansellguardianpartner.com** (hand protection) **www.ansell.com/permeation** (body protection)



HOW TO USE THIS GUIDE

- Finding the right PPE solution
- Ansell Technologies
- European Regulations

FINDING THE RIGHT PPE SOLUTION WITH THIS GUIDE

This guide has been designed to make it easy for you to find the right personal protective equipment solution. One that perfectly fits the application for which it's needed. This step-by-step guide explains how to use the information provided to efficiently select the appropriate hand, arm, body or eye protection.

Step 1 – Choose the type of protection

Determine which type of protection is required for your application. Our products are divided into four product types: hand/arm protection, body protection, goggles/facemasks and wipes/accessories.

Step 2 – Identify the risk

Based on the risk involved, choose the correct product type and segment. This will result in a range of appropriate gloves, sleeves, suits and/or accessories.

Product type	Product & PPE protection segment	Page
HAND & ARM PROTECTION	High touch	43
	Multi-purpose	46
	Robust	52
	High risk	58
	Clean & Sterile	66
	Clean & Non-Sterile	80
	Isolator & RABS Gloves	90
Product type	**Product & PPE protection segment**	**Page**
BODY PROTECTION	Clean & Sterile	106
	Clean & Sterile/Non-Sterile	110
	Chemo safety wear	117
	Low hazard liquid protection	120
	Accessories	128
Product type	**Product protection segment**	**Page**
GOGGLES & FACEMASKS	Goggles	136
	Facemasks	140
Product type	**Product protection segment**	**Page**
WIPES & ACCESSORIES	Wipes	146
	Accessories	148

WORKER EXPERIENCE INNOVATION TECHNOLOGIES

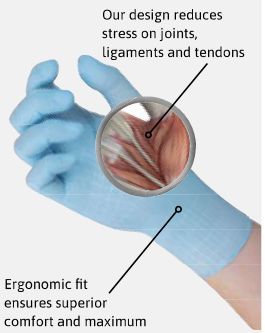
Worker Experience Innovation

Over the years, Ansell has pioneered many innovations in glove design that have become industry standards. Transforming global insights about end user needs into technology-based solutions that enhance workers' comfort, performance and protection is the hallmark of our innovation.

Comfort technologies

ERGOFORM™
Ergonomic Design Technology

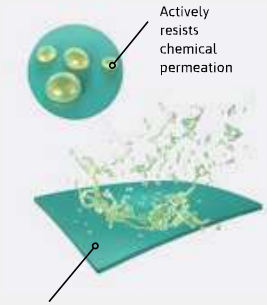
ERGOFORM™ Technology enables Ansell to design safety solutions that support musculoskeletal health during repetitive tasks to improve worker performance.



Protection technologies

TNT™
Chemical Splash Resistance Technology

TNT™ Technology is a proprietary polymer formulation that provides superior splash resistance against a wide range of hazardous chemicals, for durable protection with a soft, comfortable feel.



Performance technologies

ANSELL GRIP™
Ansell Grip Technology

ANSELL GRIP™ Technology is a coating treatment that minimizes the force required to grip dry, oily and wet tools or materials, reducing hand and arm fatigue while improving dexterity, safety and productivity.

For more information on WORKER EXPERIENCE INNOVATION, please visit **www.ansell.com/wei-technologies**

COMPLYING WITH NEW PERSONAL PROTECTIVE EQUIPMENT REGULATION

In February 2016, the European Council and European Parliament amended and approved a new PPE Regulation proposed by the European Commission. Regulation 2016/425 came into effect on 21st April 2018 with a one year transition phase, replacing Directive 89/686/EEC.

The new regulation will apply to private use as protection against heat (e.g., oven gloves) and to distributors selling PPE products. It provides additional conformity assessment requirements, such as the need for an internal production control system and valid type examination certificates for a maximum of 5 years. The regulation also provides specific requirements for every economic operator involved in the supply chain, as well as additional documentation requirements linked to the instructions for use and conformity declarations.

The new PPE regulation now specifies three categories based on risk definitions.

CE

Category I

Minimal risk

For PPE of simple design offering protection from low-level risks, (e.g., janitorial gloves) manufacturers are permitted to test and certify PPE themselves.

Category II

Risks other than those listed in Categories I and III

PPE designed to protect against intermediate risk (e.g., Goggles & general handling gloves which require cut, puncture, and abrasion protection) must be subjected to independent testing and certification by a notified body. Only these approved bodies may issue a CE mark. Without a proper CE mark, the PPE may not be sold or used. Each notified body has its own identification number. The name and address of the notified body that certifies the product must appear on the instructions for use that will accompany the PPE.

CE 0493 CE 0598

Category III

Very serious risks, which may cause death or irreversible damage to health

PPE designed to protect against the highest levels of risk (e.g., chemicals, biological agents, electric shock and live working) must also be tested and certified by a notified body. In addition, the quality assurance system used by the manufacturer to guarantee homogeneity of production must be independently checked. The body carrying out this evaluation must also appear on the instructions for use and be identified by a number that appears alongside the CE mark. In this example, the number 0493 represents Centexbel and 0598 represents SGS Fimko Oy.

COMPLYING WITH OTHER REGULATIONS

Ansell and REACH

All Ansell products fully comply with the legal requirements of REACH and its amendments. We ensure the pre-registration of all required chemicals used in our products and are actively looking for ways to replace SVHC chemicals subject to regulation, prior to their restriction or ban.

The Ansell REACH statement can be found on our website and more information is available through the Ansell customer service or regulatory department.

Authorised Economic Operator (AEO) certification

Ansell Healthcare Europe has been granted AEO as the company is demonstrating the standards for customs compliance, appropriate recordkeeping, financial solvency and, where relevant, appropriate security and safety standards.

This certification identifies Ansell as a reliable partner in all our dealings with other companies, but more particularly with customs locally and abroad, speeding up our supply chain with less controls, making it safer as more companies prioritise on inspections and permit requests as well as mutual recognition with C-TPAT, the US' Customs-Trade Partnership Against Terrorism.

PPE REGULATION (EU) 2016/425

The new PPE Regulation (EU) 2016/425 aligns the interests and formalises the requirements of stakeholders across the PPE industry.

The Regulation brings product developers and manufacturers, distributors and importers, and testers and certifiers into a community of professionals who are now collectively—and legally—responsible for ensuring the safety of PPE products.

ECONOMICAL OPERATOR
Manufacturer

Directive 89/686/EEC Before April 21st 2019	Regulation (EU) 2016/425 As of April 21st 2019
Responsibilities	**Responsibilities/Changes:**
Under the Directive, the manufacturer needed to ensure the products get certified, including: Not make PPE available in the market if the PPE is considered unable to meet the essential health and safety requirements Ensure the CE mark, the correct markings/claims, the IfU and the EU Declaration of Conformity "EU DoC" is available	• Ensure that the PPE is safe and safe for the intended purpose and compliant • Have procedures in place for series production to remain in conformity with the PPE Regulation • Take corrective actions in case of non-compliance and inform the competent authorities where PPE presents a risk • Cooperate with authorities in a language which can be easily understood by that authority • Indicate on the PPE or packaging their name and single point postal address • Ensure PPE bears a type, batch or serial number MMYYYY • Carry out the conformity assessment, apply the CE mark and draw up the EU declaration of conformity "EU DoC" • Keep technical file + EU DoC available for 10 years after PPE is placed on the market • Ensure the PPE is accompanied with the Instructions for Use "IfU" and provide the EU DoC with the PPE or add the internet address to the IfU where the EU DoC can be accessed • Inform the competent authorities where PPE presents a risk • Where needed, carry out sample testing • Ensure that transport and storage does not jeopardise the PPE's conformity

ECONOMICAL OPERATOR
Importer

Directive 89/686/EEC Before April 21st 2019	Regulation (EU) 2016/425 As of April 21st 2019
Responsibilities:	**Responsibilities/Changes:**
No requirements defined	• Place only compliant PPE on the market • Inform the competent authorities where PPE presents a risk • Cooperate with authorities in a language which can be easily understood by that authority • Not make PPE available in the market if the PPE is considered not to meet the essential health and safety requirements and, where needed, carry out sample testing • Ensure that transport and storage does not jeopardise the PPE's conformity • Indicate on the PPE or packaging their name and postal address (if manufacturer is outside EU) • Shall ensure the conformity assessment is carried out, the CE mark, the correct markings/claims and the EU declaration of conformity "EU DoC" is available • Shall ensure the PPE is accompanied with the Instructions for Use "IfU"

ECONOMICAL OPERATOR
Distributor

Directive 89/686/EEC Before April 21st 2019	Regulation (EU) 2016/425 As of April 21st 2019
Responsibilities:	**Responsibilities/Changes:**
No requirements defined	• Act with due care and verify that the PPE bears the correct markings and is accompanied by the required documents in a language that can be easily understood by the consumers • Not make PPE available in the market if the PPE is considered not to meet the essential health and safety requirements • Ensure that transport and storage does not jeopardise the PPE's conformity • Take corrective actions in case PPE is considered to be non-compliant and inform the competent authorities in case PPE presents a risk, hence the "traceability requirement" • Cooperate with authorities and provide all the information necessary to demonstrate compliance • Become responsible if they make alterations to incoming products

GUIDE TO EUROPEAN STANDARDS FOR PROTECTIVE GLOVES AND SLEEVES

Ansell gloves and sleeves sold in Europe are being certified as per European Union's Personal Protective Regulation (EU 2016/425) and relevant state of the art EN standards, as also explained in this section.

EN ISO 374 – Chemical protection and/or protection against micro-organisms
This standard specifies the capability of gloves to protect the user against chemicals and/or micro-organisms.

Micro-organisms

	Performance levels	1	2	3
EN 374:2003 EN LEVEL ≥ 2	**OLD:** AQL (Acceptable Quality Level) for liquid penetration. A high index number is poor and a low index number is good. Gloves need to pass water and air leak test, and this test method remains unchanged as per the new EN ISO 374 standard.	4.0	1.5	0.65
EN ISO 374-5:2016	**NEW:** Testing for protection against bacteria and fungi.			
EN ISO 374-5:2016 VIRUS	**NEW:** In addition to testing for protection from bacteria and fungi, each glove can be tested for its protection against viruses with a new viral penetration test. AQL requirement has been taken out of the new EN ISO 374-5:2016.			

Chemical protection

EN 374:2003 XYZ	**OLD:** Breakthrough time 30 minutes for at least three chemicals from this list (XYZ represent the code letters for three of these chemicals for which the glove obtained 30 minutes breakthrough time).	A. Methanol B. Acetone C. Acetonitrile D. Dichloromethane E. Carbon disulphide F. Toluene G. Diethylamine H. Tetrahydrofurane I. Ethyl acetate J. n-Heptane K. Sodium hydroxide 40% L. Sulphuric acid 96%	**Additional chemicals** M. Nitric acid 65% N. Acetic acid 99% O. Ammonium hydroxide 25% P. Hydrogen peroxide 30% S. Hydrofluoric acid 40% T. Formaldehyde 37%
EN ISO 374-1:2016 Type C	**NEW:** **TYPE C:** At least Level 1 performance (more than 10 minutes) against at least one chemical on the list – cuffs are also tested.*		
EN ISO 374-1:2016 Type B XYZ	**NEW:** **TYPE B:** At least Level 2 performance (more than 30 minutes) against at least three chemicals on the list – cuffs are also tested.*		
EN ISO 374-1:2016 Type A UVWXYZ	**NEW:** **TYPE A:** At least Level 2 performance (more than 30 minutes) against at least six chemicals on the list – cuffs are also tested.*		

Performance level	0	1	2	3	4	5	6
Minutes	< 10	10-30	30-60	60-120	120-240	240-480	> 480

The beaker icon (low chemical resistance/waterproof) has been eliminated.

* Only if the glove is more than or equal to 400 mm

EN 388 – Mechanical protection

This standard applies to all kinds of protective gloves in respect of physical and mechanical aggressions caused by abrasion, blade cut, puncture and tearing.

Performance level rating		1	2	3	4	5
EN 388:2003 abcd	a Abrasion Resistance (Cycles)	100	500	2000	8000	–
	b Blade Cut Resistance (Coupe Test/Index)	1.2	2.5	5.0	10.0	20.0
	c Tear Resistance (Newtons)	10	25	50	75	–
	d Puncture Resistance (Newtons)	20	60	100	150	–

Expanded performance level rating according to EN 388:2016 (a–f)		A	B	C	D	E	F
EN 388:2016 abcdef	e EN ISO Cut Resistance (Newtons)	2	5	10	15	22	30
	f EN Impact Protection	PASS or FAIL					

Note: Level ‚X' can also be applied for ‚A' through ‚E' above, which means not tested or not applicable

EN 388:2016: main changes from the previous EN 388:2003 standard

1. ABRASION
New abrasion paper used in testing.

2. CUT
New procedure for Coupe Test which also determines if dulling occurs. If dulling occurs, the new EN ISO 13977 test method (EN ISO Cut Resistance) becomes the reference whilst the Coupe Test would only be indicative.

3. IMPACT
Test method for areas claiming impact protection. P for pass whilst no code will apply in case of fail.

EN 420 – General requirements

This pictogram indicates that the user has to consult the 'instructions for use'.

Note: The CE marking is a mandatory conformity mark, certifying that a product has met the European Union's safety requirements. The initials CE do not stand for any specific words.

EN 421 – Radioactive contamination and ionising radiation

EN 421:2010

Gloves protecting from particulate radioactive contamination.

EC Regulation No 1935/2004 – Materials & articles intended to come into contact with food and repealing Directives 80/590/EEC and 89/109/EEC

1. Materials and articles, including active and intelligent materials and articles, shall be manufactured in compliance with good manufacturing practice so that, under normal or foreseeable conditions of use, they do not transfer their constituents to food in quantities which could:

a) endanger human health; or
b) bring about an unacceptable change in the composition of the food; or
c) bring about a deterioration in the organoleptic characteristics thereof.

GUIDE TO EUROPEAN STANDARDS FOR CHEMICAL PROTECTIVE CLOTHING

To assist you with the selection of appropriate protection solutions based on the exposure risk, the EU developed Type classification of chemical protective clothing (CPC).

Certification of a particular type offers an indication of your suit's protection against a particular hazard (gas, liquid or dust). As a manufacturer, it is our responsibility to ensure that Ansell meets the requirements of these standards, where applicable. Please be aware that conformance to these type standards does not mean that your suit is 100% impervious to your hazard. Under these tests, suits are only required to meet the minimum performance requirements specified. In the case of the Type 5 particulate test, for example, suits are allowed individual leakages of up to 30%, providing the average for the suits tested is less than 15%. Ansell manufactures products according to ISO 9001, thus ensuring as far as is reasonably possible they consistently achieve the desired protection level.

Current European types of chemical protective clothing

Symbol*	EN "Types"	Definition
EN 13982-1:2004 + A1:2010 TYPE 5	**EN ISO 13982-1:2004+A1:2010** Type 5	**Dry-particulate protection** Suits which provide protection to the full body against airborne solid particulates
EN 13034:2005 + A1:2009 TYPE 6	**EN ISO 13034:2005+A1:2009** Type 6	**Reduced-spray suits** Suits which offer limited protection against a light spray of liquid chemicals
EN 13034:2005 + A1:2009 TYPE PB[6]	**EN 13034:2005+A1:2009** Type 6[PB]	**Partial body protection garments i.e. sleeve covers** Offering limited protection against a light spray of liquid chemicals.
EN 1149-5	**EN 1149-5**	**Protective clothing with electrostatic properties****

Disclaimer: Ansell garments are available for most applications. However, please note that a detailed assessment of the nature of the hazard and the working environment should be undertaken prior to the selection of appropriate PPE. Ansell provides the information in this product catalogue to assist you with selecting the correct product, but responsibility for the correct choice of PPE remains with the user.

* Type approvals do not necessarily apply to accessories. Always refer to the garment label and instructions-for-use document which will indicate the protection level offered.

** Always ensure the garment and wearer are properly grounded.

SELECTING THE RIGHT CLEANROOM CONSUMABLES

- Cleanroom Classification & Consumable Choice
- Chemo Safety Wear Glove Testing

CLEANROOM CLASSIFICATION & CONSUMABLE CHOICE

CLEANROOM CLASSIFICATION

The FED-STD-209, Airborne Particulate Cleanliness Classes in Cleanrooms & Clean Zones was first published as FS 209 in 1963 by the Institute of Environmental Science and Technology (IEST). It became the foundation of the ISO 14644-1 standard: Cleanrooms and associated controlled environments.

Part 1: Classification of air cleanliness by particle concentration, which is used today. The FS 209 was replaced by ISO 14644 in 1999 within the EU and in 2001 in the USA.

The ISO 14644 standard defines the classification number of a cleanroom dependent on the maximum allowable concentration of certain size particles per m^3. The lower the ISO classification number the lower concentration of particles measured, and the 'cleaner' the cleanroom.

ISO classification number (N)	Maximum allowable concentrations (particles/m^3) for particles equal to and greater than the considered sizes shown below						FED-STD-209E
	0.1 µm	0.2 µm	0.3 µm	0.5 µm	1.0 µm	5.0 µm	
ISO Class 1	10						
ISO Class 2	100	24	10				
ISO Class 3	1,000	237	102	35			Class 1
ISO Class 4	10,000	2,370	1,020	352	83		Class 10
ISO Class 5	100,000	23,700	10,200	3,520	832		Class 100
ISO Class 6	1,000,000	237,000	102,000	35,200	8,320	293	Class 1,000
ISO Class 7				352,000	83,200	2,930	Class 10,000
ISO Class 8				3,520,000	832,000	29,300	Class 100,000
ISO Class 9				35,200,000	8,320,000	293,000	

CHOOSING THE RIGHT CONSUMABLES

The biggest contributor of contamination within a cleanroom is people. To avoid the introduction of contamination/particles into the clean environment it is imperative that anyone working within a controlled environment wears the most appropriate clothing for the cleanroom ISO classification. The suggested consumables which should be worn within each of these classified areas are:

Coveralls

- Should offer total body coverage.
- Be comfortable for the wearer for extended periods of time.
- Have a zip fastening front.
- Should have elasticated cuff and ankle openings.

Hoods

- Should provide full coverage of the wearer's head.
- Should have an elasticated face opening.

Overboots

- Should have flat soles.
- Should provide total coverage of the foot and lower leg.

Gloves

- A variety of gloves manufactured from latex, nitrile, polychloroprene or polyisoprene can be used.
- They must be powder-free if used within the Cleanroom.

Facemasks

- Can be either disposable or re-usable dependent on application.
- Should provide full coverage of the mouth and nose.

Coats

- Can be supplied with a centre or side fastening zip or a stud fastening front closure.
- The cuffs can have various fastenings including stud, elastic and Lycra.

Overshoes

- Should be supplied with flat soles.
- Should provide coverage of the foot.

Undergarments

- Comprise of short or long-sleeved tunics and trousers.

Bouffant Caps

- Should provide coverage of the wearers hair.

WHICH CONSUMABLES DO I CHOOSE FOR WHICH ISO CLASSIFICATION?

The IEST-RP-CC003.4 standard for ***Garment system consideration for cleanrooms and other controlled environments***, recommends the best practice for the gowning of personnel as a critical aspect of cleanroom contamination control. Outlined below is guidance for the selection of garments or apparel and accessories appropriate for use in cleanrooms and controlled environments.

	ISO EN 14644-1 2015 Classification Number						
CONSUMABLES	**1 & 2**	**3**	**4**	**5**	**6**	**7**	**8**
Hood	○	✓	✓	✓	○	○	○
Coverall	✓	✓	✓	✓	✓	○	○
Overboots	✓	✓	✓	✓	✓	○	○
Overshoes	✗	✗	✗	✗	○	✓	○
Undergarments	✓	✓	✓	✓	○	○	○
Coats	✗	✗	✗	✗	○	✓	✓
Facemasks	○	✓	✓	✓	○	○	○
Gloves	✓	✓	✓	✓	○	○	○
Bouffant Cap	○	✓	✓	✓	✓	✓	✓

Key: ✓ **Recommended** ○ **Application Specific** ✗ **Not Recommended**

The user should assess the choice of apparel and accessories carefully to ensure these are suitable for the Class of cleanroom, the nature and duration of the task.

This table is only intended as a general guide and should not be construed as a recommendation of the apparel required for a particular Class of cleanroom. Please see the Standard Operating Procedure of the cleanroom for the apparel required, the gowning procedure and change frequency.

CHEMO SAFETY WEAR GLOVE TESTING

SELECTING THE RIGHT HAND PROTECTION WHEN WORKING WITH CHEMOTHERAPY DRUGS

There are two primary reasons to wear personal protective gloves when working with chemotherapy drugs. First and foremost to protect the individual from exposure to a potentially harmful substance and secondarily to protect the product from contamination.

Chemotherapeutic agents are a class of chemical compounds designed and formulated as a drug product to inhibit the growth of or destroy rapidly growing cancer cells within the body. Therefore, by definition, they are either cytostatic or cytotoxic compounds and as such require the use of personal protective gloves that will act as an effective barrier between the hand and the chemical compound in question. Since these compounds are by nature destructive to human cells it is desirable to avoid exposure to these compounds.

Determining Whether A Glove Provides Adequate Protection

How then does an individual working in these environments and potentially exposed to these types of chemical compounds know whether or not the gloves they are wearing will provide adequate protection?

Gloves designed to be used in these environments can be evaluated for their protective qualities when in contact with chemical substances. This is done by conducting what's known as a chemical permeation test and is conducted under the guidance of two US industry consensus standards.

These standards are known as ASTM D6978 *Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs* and ASTM F739 Standard Test Method for *Permeation of Liquids and Gases through Protective Clothing Materials under Conditions of Continuous Contact* respectively. Whereas ASTM F739 is the general test method used to conduct chemical permeation testing, ASTM D6978 includes some additional requirements specific to chemotherapy drugs.

Permeation is the process by which a chemical dissolves and/or moves through a protective glove material on a molecular level. Permeation can occur without damaging the material or by damaging the material by degrading it. Permeation is measured in the amount of time (minutes) it takes for a chemical to pass through the barrier at a determined permeation rate, which is referred to as Chemical Breakthrough Time; and the Permeation Rate is the rate (volume over time) at which a chemical passes through the glove material.

Penetration (break-through) is the movement of a chemical and/or micro-organism through the material, pinholes or other imperfections of a glove.

Degradation is the loss of, or change in, the glove material's chemical resistance or physical properties due to exposure to chemicals and/or use. These changes can occur as swelling, disintegration, becoming brittle, discolouration, flaking, hardening, or softening and is measured by taking before and after results of different metrics such as tensile strength, force at break, modulus, visual observation, and other metrics.

CHEMO SAFETY WEAR GLOVE TESTING

Standard Test Methods

The ASTM F739 standard test method is used to identify the actual chemical permeation resistance of glove materials under continuous contact with chemicals. The glove material to be tested is placed into a permeation test cell and sandwiched between the test chemical and a collection medium. The collection medium, usually a gas or liquid, is analyzed quantitatively for its concentration of the chemical that has permeated the barrier as a function of time after its initial contact with the glove material.

Each material specimen to be tested is sampled from the palm of at least three gloves. An additional sample may be tested with just collection media as a test control depending upon the actual analytical methods used. All test specimens are cut to fit the same diameter as the flange of the permeation test cell (see Figure 1).

The test chemical is introduced into the challenge compartment of the permeation cell and the time measuring device is started. The compartment containing the test chemical is completely filled during the period of the test. Under the requirements of ASTM F739 the breakthrough time of a chemical is deemed to occur when the sum of the permeation rates of each individual component reaches the rate of 0.1 µg/cm²/min. When a permeation rate of 0.1 µg/cm²/min is detected, then the breakthrough time is reported in minutes for each test specimen. If the permeation rate does not reach 0.1 µg/cm²/min then the duration of the test is reported.

However, for chemotherapy agents under the additional requirements of the standard ASTM D6978 a more conservative breakthrough time is reported by determining a breakthrough time when 0.01 µg/cm²/min is reached. This is done in recognition of the cytotoxic/cytostatic properties of the chemical compounds in question.

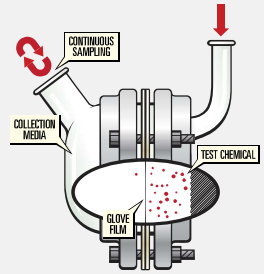


Figure 1:
Chemical Permeation Test Cell

WHY ANSELL DOES NOT USE THE TEST METHOD EN 16523-1:2015 AS SET OUT IN THE EN ISO 374 STANDARD WHEN TESTING AGAINST CHEMOTHERAPY DRUGS

Ansell gloves are tested against the most stringent standard, the American ASTM D6978-05 which employs a testing limit 100 times more stringent than its European counterpart. We do not test gloves using the EN16523-1:2015 (formerly EN374-3) method as this benchmark is not safe when assessing the suitability of a glove for protection against chemotherapy drugs.

To illustrate how the two standards parameters compare we have highlighted the consequences in the table below.

Difference	EN16523-1:2015 *	ASTM D6978-05 **	CONSEQUENCE
Thickness of the Test Specimens	Three samples have to be taken from the palm of the glove. New requirement for gloves 400mm or longer- three additional samples must be taken from the cuff area and tested for permeation.	Sample has to be taken from either the palm or the cuff of the glove, whichever is the thinner.	The ASTM D6978-05 requirement ensures that the area of greatest risk is assessed. The cuff is usually the thinnest part of the glove, so gloves tested under EN16523-1:2015 are not challenged as rigorously.
Test Temperature	Testing to be conducted at a temperature of 23°±1°C.	Testing to be conducted at a temperature of 35°±2°C.	The higher temperature specified by ASTM D6978-05 has two consequences: 1. The temperature is 2°C below body core temperature, which is similar to that of a human hand. 2. Permeation rates are greater at higher temperatures, making the test more stringent.
Test Chemicals	Testing is carried out against 1, 3 or 6 chemicals from a list of 18 chemicals (EN374-1). None of the chemicals is a chemotherapy drug.	A minimum of nine chemotherapy drugs must be used for the test. Seven of them are mandatory under the standard; the other two must be selected from a pre-defined list.	The EN374-1:2016 list of chemicals will not give a representation of how the gloves will perform when challenged by chemotherapy drugs. Users purchasing these gloves for chemo use should be advised to have them tested for suitability.
Permeation Limit	Breakthrough of the test chemical is deemed to have occurred when the permeation rate has reached 1.00µg/cm²/min.	Breakthrough of the test chemical is deemed to have occurred when the permeation rate has reached 0.01µg/cm²/min.	The ASTM D6978-05 test limit is set at 100th of the EN16523-1:2015 limit. This requirement is far more stringent and reflects the potential hazards presented by chemotherapy drugs.

* EN16523-1:2015 Determination of material resistance to permeation by chemicals Part 1: Permeation by liquid chemical under conditions of continuous contact

** ASTM D6978-05 Standard practice for assessment of resistance of medical gloves to permeation by chemotherapy drugs

Product Contamination Concerns

While personal protection is the first concern when selecting a glove, protecting the product from external sources of contamination is equally important. Manufacturing of chemotherapy drugs is conducted under good manufacturing practices (GMP) in a sterile cleanroom environment and as such, product contamination must be avoided. A variety of sources of potential contamination must be taken into consideration, including biological, particulate and undesirable chemical residues. A contaminated product from any of these sources can lead to unacceptable production lots resulting in a costly and time consuming scenario to rectify.

Recommended Solutions

How is an appropriate glove chosen for use with chemotherapy agents? Several factors need to be taken into consideration.

- Protection against:

1. specific drugs being used
2. other hazards or chemicals in the work place

- Protection of the products from external contamination
- Comfort
- Fit
- Ergonomics
- Costs

Additionally, a common practice of wearing two pairs of single use gloves (double donning) can also enhance the end user's protection against chemotherapy agents provided the gloves are chemotherapy drug approved and proven to be elastic and comfortable. In consideration of all these factors Ansell has several product offerings that fulfill these challenging and very specific needs of this environment.

For sterile and clean environments the following sterile products are recommended for use with chemotherapy drugs along with their breakthrough time:

For non-sterile environments we have non-sterile solutions (MICROFLEX® 93-260 & 93-360) that are ideally suited to general laboratory work.

Ansell Gloves	TouchNTuff® 83-500	TouchNTuff® 93-700	TouchNTuff® DermaShield™ 73-701	TouchNTuff® 73-500	MICROFLEX® 93-260 & 93-360
Polymer	Sterile Polyisoprene	Sterile Nitrile	Sterile Neoprene	Sterile Neoprene	Non-sterile Nitrile/Neoprene
Chemotherapy Drug Tested	Minimum Breakthrough Time (Mins) using ASTM D6978 Standard Breakthrough of the test chemical is deemed to have occurred when the permeation rate has reached 0.01 µg/cm²/min				
Carmustine	10.2	2.5	30.2*	30.3	69.2
Cisplatin	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins
Cyclo-phosphamide	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Cytarabine	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Docetaxel	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Doxorubicin Hydrochloride	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Etoposide (Toposar)	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Fluorouracil	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Gemcitabine	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Ifosfamide	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Irinotecan	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Methotrexate	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Mitomycin	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Oxaliplatin	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins	No breakthrough up to 240 mins	NT
Paclitaxel (Taxol)	No breakthrough up to 240 mins	No breakthrough up to 240 mins	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	No breakthrough up to 240 mins
Thiotepa	11.5	No breakthrough up to 240 mins	61.4 *	61	67.6
Vincristine Sulfate	No breakthrough up to 240 mins	NT	No breakthrough up to 240 mins *	No breakthrough up to 240 mins	NT

NT = Not Tested

* = Permeation results as per ASTM D6978 standard for GAMMEX® PF DermaPrene™. Ansell TouchNTuff® DermaShield™ 73-701 glove (certified as Personal Protective Equipment) are the equivalent of the Ansell surgical glove GAMMEX® PF DermaPrene™ (also called GAMMEX® Non-Latex) (certified as Medical Device). These two references have the same ingredients composition and are also manufactured on the same production line. The TouchNTuff® DermaShield™ 73-701 gloves receive additional after treatment. All permeation results as per ASTM D6978 standard for GAMMEX® Non-Latex PI, equivalent to TouchNTuff® 83-500. All permeation results as per ASTM D6978 standard for GAMMEX® DermaPrene™ Ultra, equivalent to TouchNTuff® 73-500.

**MICROFLEX® 93-360 is same base glove as MICROFLEX® 93-260 with additional after treatments and clean packaging.

For sterile and clean environments the following products are recommended along with their breakthrough time:

Ansell Gloves	BioClean™ BUPS	BioClean™ S-BFAP	BioClean™ BENS	BioClean™ BNPLS	BioClean™ BPZS	BioClean™ BNPS
Polymer	Sterile Polychloroprene	Sterile Polychloroprene	Sterile Nitrile	Sterile Nitrile	Sterile Nitrile	Sterile Nitrile
Chemotherapy Drug Tested	Minimum Breakthrough Time (Minutes) using ASTM D6978 Standard Breakthrough of the test chemical is deemed to have occurred when the permeation rate has reached 0.01 µg/cm²/min					
Cisplatinum	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Carmustine	2	26	12	2	50	2.5
Cyclophosphamide	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Doxorubicin Hydrochloride	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
5-Fluorouracil	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Methotrexate	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Etoposide	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Paclitaxel	No breakthrough up to 480 minutes	No breakthrough up to 240 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes	No breakthrough up to 480 minutes
Thiotepa	48	35	30	1	108	111

Glove Box Environment Solutions

Glove boxes play a vital role in protecting products from human or environmental contamination as well as protecting individuals and environments from hazardous chemicals used for the compounding of chemotherapy drugs. Due to the propensity of sensitive materials utilized in the life sciences, any of three different types of glove boxes may be used; Containment glove boxes, Isolation glove boxes and Isolators. The environment inside a glove box is typically sterile, clean and pressurized, either positively or negatively, to meet the specific requirements of the application.

Isolators are used to contain some of the most dangerous and toxic material known to man, therefore they are ultra-clean and contained for product and personal protection.

For glove box environments the following products have been tested against chemotherapy drugs listed below along with their breakthrough time.

Ansell Gloves	BioClean™ GGL, CGL, GHG, CHG	AlphaTec® 85-500	AlphaTec® 85-600	AlphaTec® 85-300
Polymer	Nitrile	EPDM	EPDM+	CSM
Chemotherapy Drug Tested	Minimum Breakthrough Time (minutes) using ASTM D6978 Standard Breakthrough of the test chemical is deemed to have occurred when the permeation rate has reached 0.01 µg/cm²/min			
Bleomycin Sulphate	240	NT	NT	NT
Carboplatin	240	NT	NT	NT
Cytarabine HCl	240	NT	NT	NT
Dacarbazine	240	NT	NT	NT
5-Fluorouracil	240	NT	NT	NT
Daunorubicin HCl	240	NT	NT	NT
Idarubicin	240	NT	NT	NT
Ifosfamide	240	NT	NT	NT
Melphalan	240	NT	NT	NT
Mitomycin C	240	NT	NT	NT
Mitoxantrone	240	NT	NT	NT
Vincristine Sulphate	240	NT	NT	NT
Carmustine	480	NT	NT	NT
Cisplatin	480	NT	NT	NT
Cyclophosphamide	480	NT	NT	NT
Doxorubicin	480	NT	NT	NT
Etoposide	480	240	240	240
Fluorouracil	480	NT	NT	NT
Paclitaxel	480	240	240	240
Thiotepa	480	NT	NT	NT
Methotrexate	480	240	240	240

NT = Not Tested

TEST METHOD COMPARISON

EN 16523-1:2015 (FORMALLY EN 374-3:2003) VS ASTM D6978-05

THICKNESS OF THE TEST SPECIMENS

EN 16523-1:2015*

Sample has to be **taken** from the **palm** of the **glove.**

(>400mm length — additional samples to be taken from cuff area)

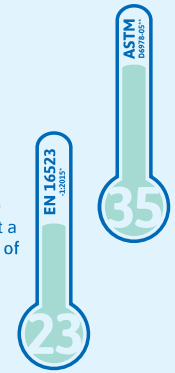
ASTM D6978-05**

Sample has to be **taken** from **either** the **palm** or the **cuff** of the **glove,** whichever is the **thinner**.

Did you know?

The **cuff** is usually the **thinnest** part of the glove.

TEST TEMPERATURE



Testing to be **conducted** at a temperature of **23°± 1°C.**

Testing to be **conducted** at a temperature of **35°±2°C. Closer** to **body temperature.**

Did you know?

Permeation rates are **much greater** at **higher temperatures.**

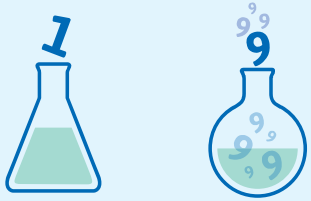
THICKNESS OF THE TEST SPECIMENS

EN 16523-1:2015*

A minimum of **one** chemical **must be used** for the **test.**

ASTM D6978-05**

A **minimum** of **nine Chemotherapy drugs must** be used for the **test.**

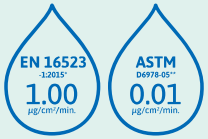


Did you know?

None of the **chemicals** used in the **EN 16523** test **needs** to be a **Chemotherapy** drug.

TEST TEMPERATURE

Breakthrough of the **test chemical** is **deemed** to have **occurred** when the **permeation rate has reached...**



Did you know?

The **ASTM D6978-05** breakthrough test limit is **100th** of the **EN 16523-1:2015** limit.

HAND AND ARM PROTECTION

- Latex Allergies
- Food safe solutions
- Know your gloves & sleeves
- Find the right glove size
- High Touch
- Multi-purpose
- Robust
- High Risk
- Clean & Sterile
- Clean & Non-Sterile
- Isolator & RABS Gloves

PROTECT YOURSELF FROM LATEX ALLERGY

PROTECT YOURSELF FROM TYPE I ALLERGIES

Occasionally wearing glove products can cause issues with the health of our skin. This predominantly manifests itself in the form of skin allergies of a variety of different types and severity.

Skin allergies from adverse reactions to glove products are generally classified into three distinct types, immediate hypersensitivity or Type I, delayed hypersensitivity or Type IV, and irritant contact dermatitis.

Repeated Exposure To NRL May Lead To Type I Allergies

Adverse reactions to natural rubber latex (NRL) gloves can range from irritant contact dermatitis to serious allergic response such as anaphylaxis. **Latex allergy also known as Type I Allergy** is a reaction to the residual allergenic proteins present in NRL products. NRL comes from the sap of the rubber tree, Hevea brasiliensis, found in South Africa and Southeast Asia. While there are more than 250 different types of latex proteins, approximately 20% are allergenic. After repeated exposure to NRL products, the immune system of some susceptible individuals produces antibodies that react immunologically with these allergenic proteins. There is an immediate adverse reaction occurring within minutes after initial contact with NRL. The symptoms may include some or all of the following: swelling, redness on the site of exposure, itching and burning sensation. Symptoms can spread to areas near the site of glove contact and can be accompanied by: urticarial, conjunctivitis, rhinitis, and bronchial obstruction. Symptoms of anaphylaxis is rare but can occur.

Chemical Accelerators Induce The Majority of Chemical Allergies

Allergic reactions to chemical residues from the glove manufacturing process may produce what is known as a **Type IV Allergy (Chemical Allergy) or ACD**. This type of allergy is not life threatening, but it is a major concern for healthcare workers and those employed in the Life Science industry. Glove manufacturers use a variety of chemicals to produce both NRL and synthetic rubber gloves. Different manufacturers use different chemical combinations and nearly all manufacturers leach and wash their gloves to minimize residual chemicals in the final product. A chemical allergy is due to an immunological reaction to a residual chemical leached from finished glove products into the skin of the wearer.

The chemicals used in the glove manufacturing process fall into the following broad classifications:

The chemical accelerators induce the majority of chemical allergies. The residues from these accelerators have become a major concern because of their ability to sensitize users and elicit chemical allergic reactions. Over 80% of reported glove associated allergic contact dermatitis is attributable to chemical accelerators.

The response is delayed, typically producing symptoms between 6-48 hours after initial contact with the glove, and symptoms may persist for up to 4 days. The symptoms may include: redness and swelling, dry skin to patch eczema, and chronic sores that weep or bleed. A Type IV response begins when residual chemicals leached from the glove penetrate the skin and trigger the formation of T cells sensitized to the specific antigens.

Hand Irritation and Reaction Triggers

Many glove users experience what is known as **irritant contact dermatitis**, a non-immune reaction that occurs within minutes to hours of glove contact. It is not an allergy rather a condition as a result of many factors combined with glove use (for example: reactions to detergents/fragrance soap, frequent hand washing, inadequate rinsing/drying). Symptoms are limited to where there is direct glove exposure and include redness, chafing, dryness, and scaling or cracking. To reduce the risk of irritation: minimize contact with the causative agent, commit to a regular skin care regimen, avoid oil/fat based hand creams, and wear powder free gloves.

Type I Latex Allergy Solutions

In all cases of repeat or persistent dermatitis or allergic reaction associated with glove use it is recommended to consult a medical practitioner. Since skin allergies vary in possible severity, solutions to these problems also vary. First and foremost a Type I or true natural rubber latex allergy can be a very serious condition. In this case, a synthetic product is appropriate and must be worn as an alternative to a natural rubber latex glove. As the donning powder on NRL powdered gloves is a possible carrier of allergenic NRL proteins which may become airborne and inhaled, coworkers practicing in the same environment as someone allergic to NRL, should wear either a synthetic glove or a powder-free NRL glove

Synthetic Material Options

Polyisoprene Most similar performance to natural rubber latex with a high level of comfort, excellent elasticity and moderate strength.

Neoprene Characteristic performance falls between polyisoprene and nitrile with a good balance of comfort, strength and elasticity.

Nitrile Higher strength, durability and puncture resistance than natural rubber latex but does sacrifice some elasticity.

PROTECT YOURSELF FROM TYPE IV ALLERGIES

Type IV Contact Dermatitis Solutions

For individuals who are experiencing a Type IV reaction product recommendations are a little more complex as you will first need to identify and then eliminated the causative chemical agent. Since there are several classes of chemicals that tend to cause adverse skin reactions a better understanding of what chemicals are used and why they are required is needed.

Are Accelerators Necessary?

In order to manufacture a glove from a rubber material effectively, some type of chemical accelerator is generally used. Accelerators are used to chemically speed up the vulcanization process during the manufacturing of natural and synthetic latex gloves. Vulcanization is one step in the process by which crude latex is transformed into a finished product. This is normally accomplished by subjecting the crude latex to heat and sulfur to cross-link the rubber molecules rendering a solid film with desired strength and elastic properties dependent upon the design features and material type. These chemical accelerators speed the vulcanization process by reducing the temperature at which vulcanization occurs producing a much more consistent and reliable film from which the final gloves are formed. Examples of accelerator classes commonly used in glove manufacturing are thiurams, mercaptobenzothiazols (MBT) and carbamates. Of these classes of accelerators the least likely to produce a skin reaction are carbamates.

Are Accelerators Safe?

For personal protective gloves, manufacturers are required to ensure the product is safe for use. This is typically done by conducting two skin irritation tests, one long term and one short term, on the finished glove product. In fact, current regulations in most geographic regions require this of medical grade gloves. In the United States for example, the Food and Drug Administration (FDA) requires that all medical grade gloves pass both the skin irritation test and the skin sensitization test prior to being marketed in the US. These battery of tests ensure that the vast majority of glove users will not experience any sort of irritating response from the glove itself. Other regions such as the European Union under the Medical Device Directive (93/42/EEC) require similar types of testing and product assessment before those products can be placed on the market.

Product Quality Affects The Potential For Reactions

When it comes to allergic contact dermatitis caused by chemicals used in disposable gloves, the manufacturing process and how well a glove is produced can significantly reduce the potential for reactions. On a well manufactured glove product residual chemicals are leached out of the glove prior to packaging. For products that are poorly manufactured this leaching process is not always as effective as it should be and as such the potential for an increased number of people experiencing a skin reaction exists.

Can A Glove Be Made Without Accelerators?

The short answer is yes! Ansell provides products that are specifically engineered for our customers who may have extremely sensitive skin. These products are produced without the use of the chemical accelerators listed above or any other chemical accelerators. Proper vulcanization without the use of any chemical accelerators is done through a proprietary process that strengthens the material without using chemical accelerators. This process results in a cleaner, more skin-friendly product and provides the best possible solution when you need the barrier protection of a glove and healthy skin for your sensitive hands.

The Ansell Solution

For those wearers with Type I or Type IV allergies, Ansell has a wide variety of options in the synthetic category and several different synthetic materials to choose from including nitrile, neoprene and polyisoprene. These materials vary in performance characteristics as well as cost. Products may also have special design features for specific applications which should factor in to any glove decision. And for those wearers with Type IV allergies or sensitivities, Ansell has products that are produced without the use of any chemical accelerators. The **TouchNTuff® 73-500, TouchNTuff 73-701** as well as **MICROFLEX® 93-823** are several Ansell gloves that are perfect solutions for anyone who has extremely sensitive skin or who is having trouble finding a glove that is the least irritating to their skin. Not only have these products been specifically engineered to solve this particular problem it's been proven scientifically to be less likely to cause the types of reactions listed above.

KNOW YOUR GLOVES AND SLEEVES

To ensure optimum performance in a given application, each Ansell protective solution is designed with unique characteristics. A wide range of materials, cuff styles and sizes ensure that you get the right glove and/or sleeve for the job. Here, you can quickly familiarise yourself with these characteristics in order to make the best PPE decisions.

Materials

Materials	Features
Natural rubber latex	Dry & wet grip, liquid resistant, exceptional comfort & flexibility
Nitrile	Dry & wet grip, soft, flexible, puncture resistant, good chemical protection, anti-static
Neoprene/Polychloroprene	Dry & wet grip, excellent comfort and flexibility, puncture resistant, excellent chemical protection, anti-static
Polyisoprene	Top of the range synthetic material, stretchy, superior comfort, hypo-allergenic, excellent chemical protection
Vinyl	Loose fitting, comfortable, dry grip, excellent anti-static properties
Nylon	Close fitting, soft & comfortable

Glove Cuff Style

Cuff		Description
	**Beaded**	Provides increased protection from liquid droplets, as well as increased cuff strength.
	**Straight**	Provides additional length to protect forearm from liquid run-off.
	Gauntlet	Provides added protection and length (usually 10 cm or longer), allowing maximum movement of the wrist.
	**Knitwrist**	Designed to hold gloves in place and prevent debris from entering the glove.

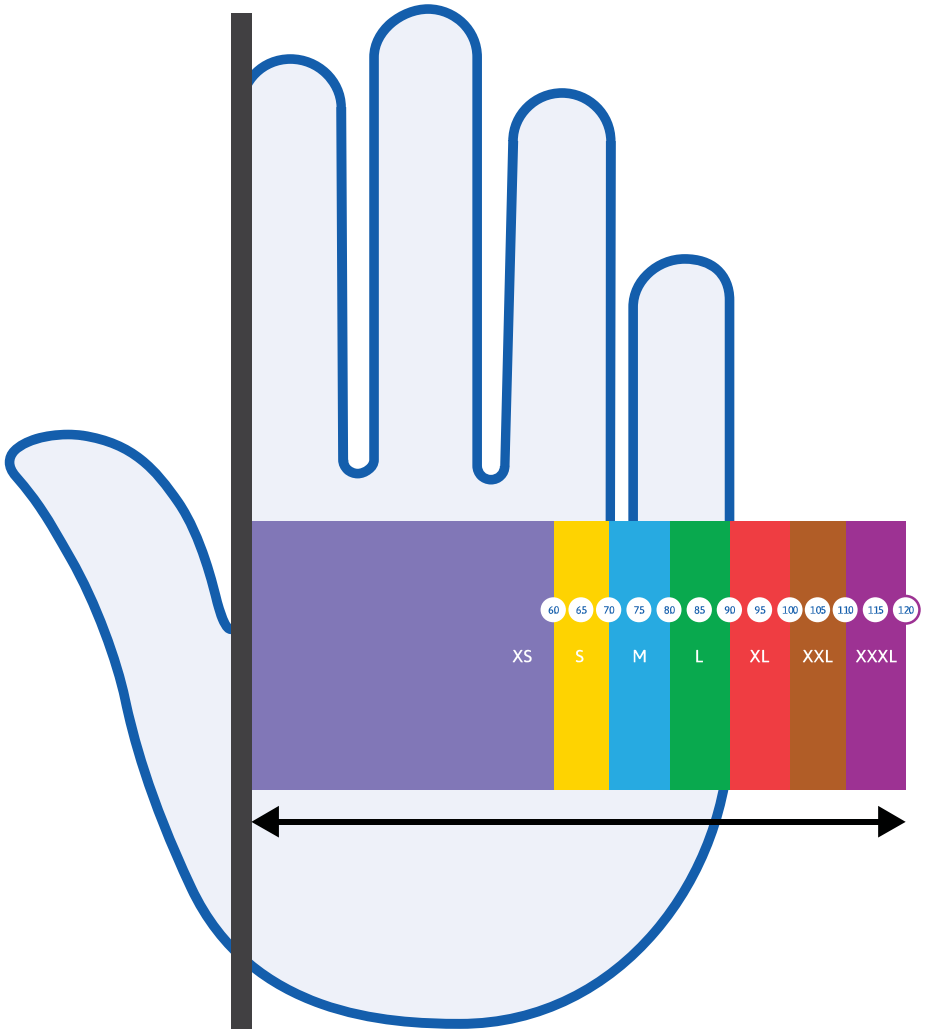
FIND THE RIGHT GLOVE SIZE

Glove Size Chart

Your glove size is determined by the width of your hand, this chart is a guide only and should be used to determine your approximate glove size.

Instructions

1. Place your right hand, palm face down, onto the hand outline with your fingers together and your thumb open away from your hand
2. Make sure the edge of your index finger is aligned to the black line
3. The coloured section where the right hand edge of your hand stops is your glove size



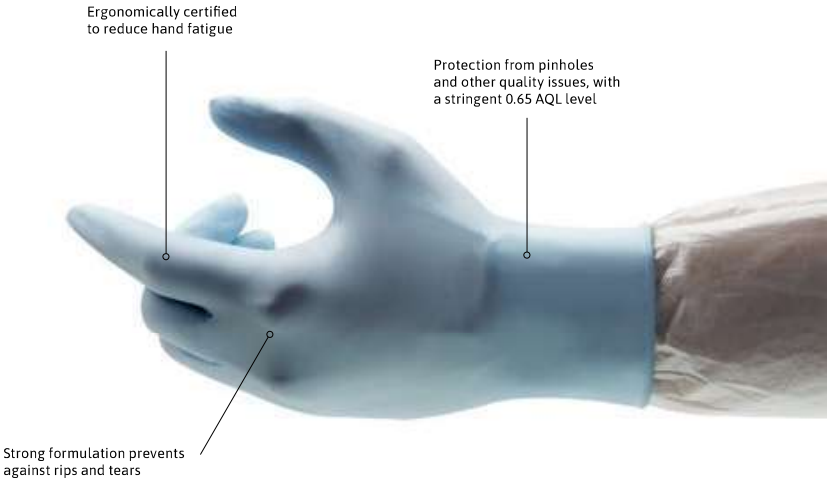
HAND AND ARM PROTECTION

	Category	Features	Characteristics
	HIGH TOUCH	Ultra-thin gloves designed to provide the sensitivity and tactility necessary for tasks that require fine motor control.	Ultra-thin High sensitivity Feather light Fine motor control
	MULTI-PURPOSE	Versatile, disposable gloves that provide reliable protection for a wide range of applications and environments.	Heavier Broad applications Versatile
	ROBUST	Highly resilient gloves engineered for strength, endurance and longer wear times for demanding work conditions.	Think bull Strong and durable Increased chemical splash protection
	HIGH RISK	High Performance, extended-cuff gloves specifically engineered to provide expanded user protection.	Longer cuff Expanded protection Additional certifications
	CLEAN & STERILE	Clean and Sterile gloves designed to meet the special requirements of cleanroom and aseptic controlled environments.	Aseptic environment ISO 4, 5 or 6 compliant Highly comfortable Very good chemical protection
	CLEAN & NON-STERILE	Gloves processed and packed within a cleanroom for use within clean controlled environments.	ISO 4, 5 or 6 compliant Broad range of materials Chemical splash protection
	ISOLATOR & RABS GLOVES	Clean and clean/sterile isolator pharmaceutical-grade gloves are cleanroom processed and packed to meet the most stringent requirements.	Strong and durable ISO Class 4 & EU GMP Grade A compliant Excellent chemical protection Superior dexterity and user comfort

HIGH TOUCH

HAND AND ARM PROTECTION | HIGH TOUCH

MICROFLEX® 93-833 | Nitrile



Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.07/2.8
Finger thickness (mm/mil)	0.11/4.3
Packaging	250 gloves per dispenser; 10 dispensers per carton **Size 9.5-10:** 230 gloves per dispenser

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT | EN ISO 374-5:2016 VIRUS | EN 421

EXTRA FEATURES

Anti-static EN 1149 | Splash | EN 455

TECHNOLOGIES

ERGOFORM™ Ergonomic Design Technology

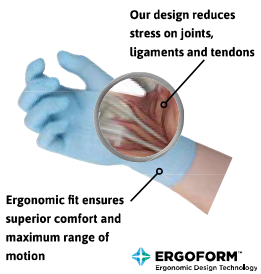
ERGONOMICALLY DESIGNED AND CERTIFIED TO REDUCE HAND FATIGUE

DESCRIPTION

- Designed to reduce hand fatigue and help workers be more productive while exerting less muscle effort
- The unique formulation delivers a thinner and lighter examination glove with increased strength and protection
- Smartly packaged 250 gloves per dispenser
- Exceptional barrier integrity with 0.65 AQL for allowable pinholes

IDEAL APPLICATIONS

- Analytical testing and measurements
- Biotechnologies
- Dairy processing
- Food processing
- Intricate parts handling
- Laboratory analysis and testing
- Light assembly tasks
- Light duty maintenance and clean-up
- Pharmaceutical manufacturing
- Protection from blood and other bodily fluids



MICROFLEX® 93-823 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.06/2.4
Finger thickness (mm/mil)	0.10/3.9
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C

EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Silicone-free

Splash

Decreases skin irritation potential in sensitive skins

DESCRIPTION

- Specialised formulation clinically proven to decrease redness and itchiness associated with contact dermatitis
- Very low sulphur and aluminium content
- Textured fingertips and a reduced amount of surfactant used to produce the glove results in a secure and confident grip for handling objects
- AQL 1.5

IDEAL APPLICATIONS

- Analytical testing and measurements
- Assembly and inspection
- Handling small/sensitive parts and materials
- Laboratory analysis
- Light duty assembly

VersaTouch® 92-200/205/210/220 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	**92-200/92-205:** 6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11 **92-210/92-220:** 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.08/2.0
Finger thickness (mm/mil)	0.010/2.8
Packaging	**92-200/92-205:** 100 gloves per dispenser; 10 dispensers per carton **92-210/92-220:** 100 gloves in a bag; 10 bags in a carton

VersaTouch® 92-205

VersaTouch® 92-210

VersaTouch® 92-200

VersaTouch® 92-220

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C

EN ISO 374:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149

Silicone-free

Splash

Comfort, dexterity and protection for food processing

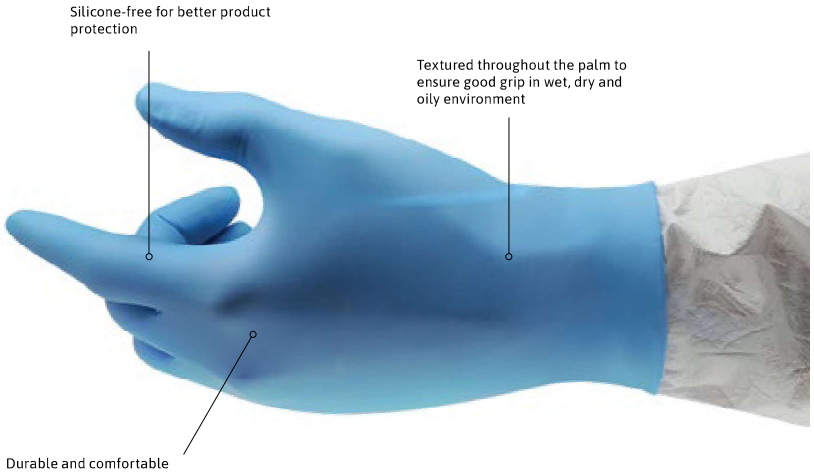
DESCRIPTION

- Versatile and lightweight
- Textured fingertips for good comfort and tactility for sensitive and precise handling
- Ideal for handling all fatty food
- 92-210/92-220: Polybag packaging ideal for wet environments
- AQL 1.5

IDEAL APPLICATIONS

- Catering
- Dairy processing
- Food distribution
- Prepared meals

MICROFLEX® 93-143 | Nitrile



Coating material	Nitrile
Grip design	Fully textured
Cuff style	Beaded
Size	XS (5.5-6), S (6.5-7), M (7.5-8), L (8.5-9), XL (9.5-10)
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.12/4.7
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT | EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149 | Silicone-free | Splash

DURABLE PROTECTION IN A COMFORTABLE, VERSATILE GLOVE

DESCRIPTION

- Versatile disposable glove ideal for a wide variety of applications
- Textured throughout the palm to ensure good grip in wet, dry and oily environment
- Silicone-free for better product protection
- Tested for use with chemotherapy drugs

IDEAL APPLICATIONS

- Automotive
- Chemical
- Machinery and Equipment
- Life Sciences
- Food processing

TouchNTuff® 92-670 | Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.20/7.9
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT | EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149 | Silicone-free | Splash

Robust protection for heavy-duty jobs

DESCRIPTION

- Superior chemical splash protection
- Soft, durable nitrile material for added comfort
- Textured fingertips provide secure grip
- Complies with food handling requirements

IDEAL APPLICATIONS

- Chemical industry
- Intricate parts handling
- Laboratory analysis
- Pharmaceuticals

VersaTouch® 92-465 | Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.15/6.3
Packaging	100 gloves in a bag; 10 bags per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT | EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149 | Splash

Reliable grip for food service jobs

DESCRIPTION

- Polybag packaging ideal for wet environments and reduced contamination
- Good fingertip flexibility
- Suitable for contact with all fatty foods
- AQL 1.5

IDEAL APPLICATIONS

- All final stages of meat or fish processing
- Catering
- Controlled-environment rooms
- Dairy processing
- Prepared meals

VersaTouch® 92-471 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.16/6.3
Packaging	100 gloves in a bag; 10 bags per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Splash

Reliable grip for broad general applications

DESCRIPTION

- Good fingertip flexibility and tear strength
- Polybag packaging ideal for wet environment and reduced contamination
- AQL 1.5

IDEAL APPLICATIONS

- All final stages of meat or fish processing
- Catering
- Controlled-environment rooms
- Dairy processing
- Prepared meals

MICROFLEX® 73-847 — Neoprene

Coating material	Neoprene
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	245/9.6
Palm thickness (mm/mil)	0.10/3.9
Finger thickness (mm/mil)	0.13/5.1
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT; EN ISO 374-5:2016 VIRUS; EN 421

EXTRA FEATURES

Splash

TECHNOLOGIES

ERGOFORM Ergonomic Design Technology

Ergonomically designed with exceptional grip

DESCRIPTION

- Soft neoprene formulation and ergonomic design for increased comfort and greater tactile sensitivity
- Textured fingertips and advanced formulation for excellent wet and dry grip
- AQL 1.5

IDEAL APPLICATIONS

- Biotechnologies
- Filtration processes
- Inspection and tooling precision maintenance
- Laboratory analysis
- Light-assembly tasks (wet and dry)
- Pharmaceutical manufacturing

DURA-TOUCH® 34-755 — Vinyl

Coating material	Vinyl
Grip design	Smooth finish
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	235/9.3
Palm thickness (mm/mil)	0.08/2.8
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS

High quality, easy-to-don powdered protection for food service jobs

DESCRIPTION

- Pre-powdered for easy donning; more comfortable to wear and easier to put on and remove without tearing
- Protects handled items from fingerprints or lint/dust
- Ambidextrous, fits either hand; more economical and convenient: no need to pair left and right
- AQL 4.0

IDEAL APPLICATIONS

- Agriculture
- Laboratory analysis
- Light duty maintenance and clean-up

TouchNTuff® 69-318 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured finish
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.14/5.5
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Silicone-free; Splash

Designed for comfort, tactility and gripping delicate instruments

DESCRIPTION

- Ideal for intricate handling of objects
- Our lightest powder-free latex glove
- AQL 1.5

IDEAL APPLICATIONS

- Maintenance
- Laboratory analysis
- Food processing

TouchNTuff® 69-210 | Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Smooth finish
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.10/3.9
Finger thickness (mm/mil)	0.12/4.7
Packaging	100 gloves per dispenser; 10 dispensers per carton

Designed for easy donning and moisture absorption

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT

EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Silicone-free

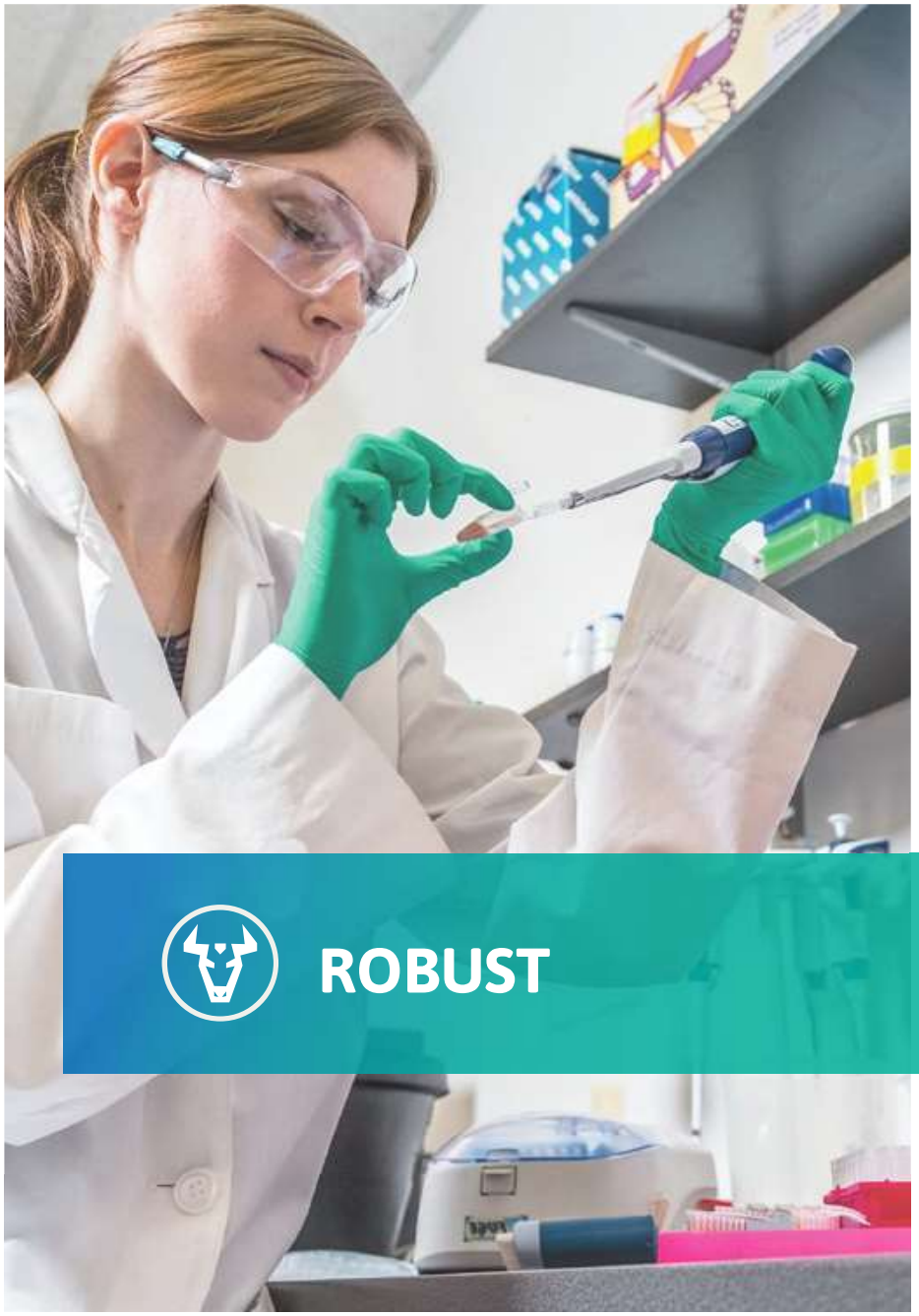
Splash

DESCRIPTION

- Lightly powdered glove helps absorb moisture for easy donning and doffing
- Thin design for superior tactile sensitivity
- AQL 1.5

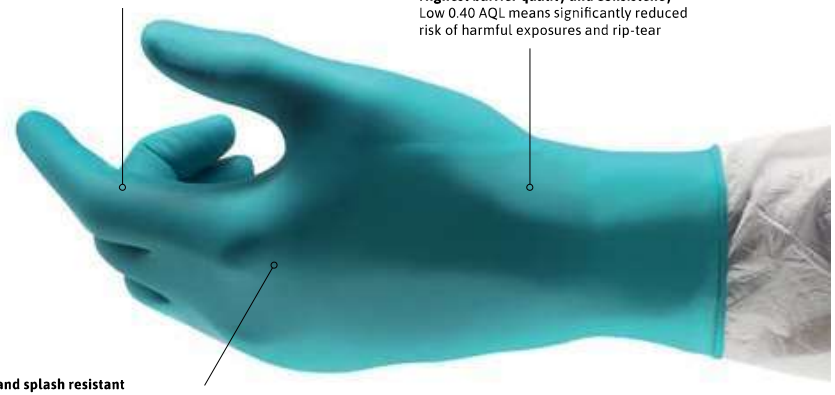
IDEAL APPLICATIONS

- Maintenance
- Laboratory analysis
- Food processing



ROBUST

MICROFLEX® 93-850 — Nitrile



Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.19/7.5
Packaging	100 gloves per dispenser; 10 dispensers per carton **Size 10.5-11:** 90 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKOPT · EN ISO 374-5:2016 VIRUS · EN 421

EXTRA FEATURES

Anti-static EN 1149 · Silicone-Free · Splash

TECHNOLOGIES

TNT™ Chemical Splash Resistance Technology

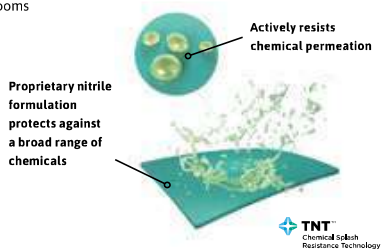
THE ULTIMATE BARRIER FOR A HIGHER LEVEL OF PROTECTION AGAINST HAZARDOUS EXPOSURES

DESCRIPTION

- The ultimate in disposable glove barrier protection for reduced risk of harmful exposures, rips and tears
- Made with TNT™ Chemical Splash Resistance Technology, a comfortable, durable proprietary Ansell polymer formulation
- Provides superior chemical splash resistance against a wide range of hazardous chemicals
- Low 0.40 AQL means fewer pinhole defects and greater barrier integrity

IDEAL APPLICATIONS

- Laboratory analysis
- Electronic manufacture
- Pharmaceuticals
- All final stages of meat or fish processing
- Controlled-environment rooms
- Prepared meals
- Dairy processing
- Catering



MICROFLEX® 93-852 — Nitrile

Coating material	Nitrile
Grip design	Fully textured
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	245/9.6
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.14/5.5
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT · EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149 · Splash · EN 455

Non-foaming formula for a secure grip in wet applications

DESCRIPTION

- Non-foaming formula enable wearers to have a firm wet grip when handling objects
- Distinctive black colour hides stains and provides a contrasting backdrop for identifying lighter coloured material
- AQL 1.5

IDEAL APPLICATIONS

- Light assembly of oil-coated pieces
- Mechanical jobs
- Laboratory analysis and testing
- Light duty maintenance and clean-up

MICROFLEX® 93-843 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	245/9.6
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.18/7.1
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT · EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149 · Splash · EN 455

Sturdy coverage for demanding applications

DESCRIPTION

- Non-stick properties are built into the glove formulation to create a resistance to tape or adhesives, and to assist workers with improved efficiency and speed
- Exceptional barrier integrity with 0.65 AQL for allowable pinholes
- Textured fingertips ensure strong, efficient grip and maximum worker protection
- Polymer coating assures easy donning to help protect workers in fast-paced environments

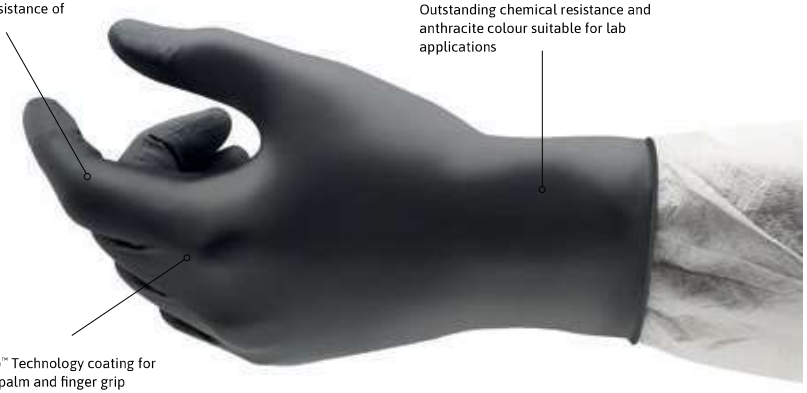
IDEAL APPLICATIONS

- Assembly and inspection
- Food processing
- Laboratory analysis and testing
- Pharmaceutical manufacturing
- Protection from blood and other bodily fluids

TouchNTuff® 93-250 | Nitrile

Proprietary nitrile formulation delivers comfortable fit and 3X the puncture resistance of latex gloves

Outstanding chemical resistance and anthracite colour suitable for lab applications



Ansell Grip™ Technology coating for enhanced palm and finger grip

Coating material	Nitrile
Grip design	ANSELL GRIP™ Technology
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.12/4.7
Palm thickness (mm/mil)	0.14/5.5
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT

EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149

Silicone-free

Splash

TECHNOLOGIES

ANSELL GRIP™ Ansell Grip Technology

CONFIDENT GRIP AND FLEXIBILITY IN A SINGLE USE GLOVE

DESCRIPTION

- Minimises the force required to grip dry, wet or oily objects, reducing hand and arm fatigue and improving dexterity, safety and productivity
- Proprietary soft and durable formulation conforms to your hand, providing ultimate comfort for long wear periods
- Enhanced chemical splash protection
- AQL 1.5

IDEAL APPLICATIONS

- Handling of machined parts lightly coated with oil
- Food handling
- Lab work, blending, compounding, filling and cleaning
- Maintenance and equipment clean-up
- Picking and assembling wet or dry parts

TouchNTuff® 92-600 | Nitrile

Coating material	Nitrile
Grip design	Smooth
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.16/6.2
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT

EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149

Silicone-free

Splash

Vending

TECHNOLOGIES

TNT™ Chemical Splash Resistance Technology

Leading disposable glove for chemical splash protection

DESCRIPTION

- Ansell's best-selling glove
- Made with proprietary nitrile formulation for enhanced chemical protection and increased comfort
- Robust nitrile enhances mechanical protection
- AQL 1.5

IDEAL APPLICATIONS

- Chemical handling
- Electronics
- Laboratory analysis
- Light-assembly tasks

TouchNTuff® 92-500 | Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.10/3.9
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT

EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149

Silicone-free

Splash

TECHNOLOGIES

TNT™ Chemical Splash Resistance Technology

Proven splash protection against hazardous chemicals

DESCRIPTION

- Powdered for easy donning and moisture absorption
- Made of proprietary nitrile formulation, the 92-500 resists a greater variety of industrial chemicals for longer periods than any other nitrile disposable glove
- AQL 1.5

IDEAL APPLICATIONS

- Assembly of wet and dry parts
- Laboratory analysis
- Light duty maintenance and clean-up
- Chemical handling

MICROFLEX® 63-864 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	245/9.6
Palm thickness (mm/mil)	0.16/6.3
Finger thickness (mm/mil)	0.18/7.1
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

Dependable protection with a reliable grip

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KLT; EN ISO 374:2016 VIRUS; EN 421

EXTRA FEATURES

Splash; EN 455

DESCRIPTION

- Thicker than average latex to prevent rips and tears
- Enhanced textured fingertips provide a secure grip
- Double chlorinated for easy donning
- Excellent protection and greater durability
- AQL 1.5

IDEAL APPLICATIONS

- Assembly of wet and dry parts
- Laboratory analysis
- Light duty maintenance and clean-up
- Cleaning and warehousing

MICROFLEX® NeoTouch™ 25-101 — Neoprene

Coating material	Neoprene
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	240/9.5
Palm thickness (mm/mil)	0.13/5.1
Finger thickness (mm/mil)	0.16/6.3
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

A unique combination of allergy prevention and comfort

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Splash

DESCRIPTION

- Polyurethane inner coating for easy donning
- Excellent splash resistance to most acids and alcohols
- Textured fingertips to reduce the force required to grip dry, wet or oily objects
- AQL 1.5

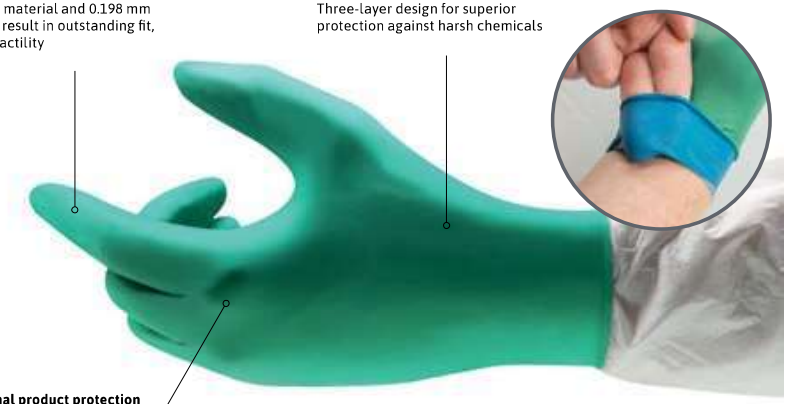
IDEAL APPLICATIONS

- Sampling taking and processing
- Testing
- Transferring liquids and solids

MICROFLEX® 93-260 — Nitrile/Neoprene

Enhanced comfort and dexterity
Extra soft material and 0.198 mm thickness result in outstanding fit, feel and tactility

High chemical resistance
Three-layer design for superior protection against harsh chemicals



Exceptional product protection
Silicone-free formulation and processing ensure better product protection

Coating material	Nitrile, Neoprene
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11
Length (mm/in)	285/11.22
Palm thickness (mm/mil)	0.198/7.9
Finger thickness (mm/mil)	0.20/7.9
Packaging	50 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN 388:2016 — 2000X
EN ISO 374-1:2016 Type A — JKLOPST
EN ISO 374-5:2016 — VIRUS
EN 421

EXTRA FEATURES

Anti-static EN 1149
Silicone-free
Splash

TOUGH CHEMICAL PROTECTION WITH UNPARALLELED COMFORT

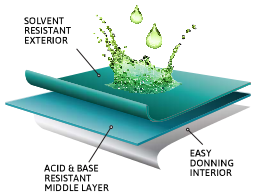
DESCRIPTION

- Three-layer design for superior protection against harsh chemicals including acids, solvents and bases
- Thin-mil construction provides enhanced tactility and dexterity
- Extra-soft material and ergonomic design for outstanding fit, feel and flexibility for longer wear time
- Lower acceptable pinhole rate
- AQL 0.65

IDEAL APPLICATIONS

- Blending, compounding materials
- Handling aerospace equipment and parts
- Handling unexpected leaks, spills or other releases
- Maintenance and equipment cleanup
- Mounting and dismounting parts
- Petrochemicals
- Routine and experimental testing
- Sample taking and lab processing
- Transferring liquid and solids

INNOVATIVE 3 LAYER DESIGN*

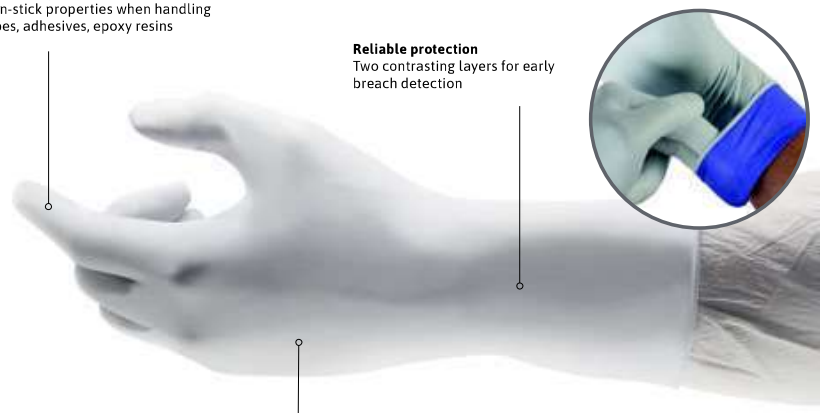


* INNOVATIVE 3-LAYER PATENTED DESIGN

MICROFLEX® 93-868 — Nitrile

Increased productivity
Non-stick properties when handling tapes, adhesives, epoxy resins

Reliable protection
Two contrasting layers for early breach detection



Non-foaming properties ensuring a reliable grip in wet environment

Coating material	Nitrile
Grip design	Textured fingers
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11, 11.5-12
Length (mm/in)	280/11
Palm thickness (mm/mil)	0.14/5.5
Finger thickness (mm/mil)	0.21/8.3
Packaging	100 gloves per dispenser; 10 dispensers per carton **Size 11.5-12:** 90 gloves per dispenser

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B — JKPT
EN ISO 374-5:2016 — VIRUS
EN 421

EXTRA FEATURES

Silicone-free
Splash
EN 455

TWO CONTRASTING LAYERS FOR RELIABLE BARRIER PROTECTION

DESCRIPTION

- Dual layer, dual colour design for two layers of protection
- Tested for protection from hazardous chemicals
- Advanced barrier protection (AQL 0.65)
- Non-stick properties for reduced interference when working with adhesive tapes
- Non-foaming properties for reliable wet grip when handling objects or tools
- Tested against fentanyl and gastric acid

IDEAL APPLICATIONS

- Administering drugs
- Inspection, selecting, checking parts
- Sample taking and processing
- Transferring liquids and solids
- Food processing

MICROFLEX® 93-283/287 — Nitrile

Coating material	Nitrile
Grip design	Raised-Diamond Texture
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11, 11.5-12
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.20/7.9
Finger thickness (mm/mil)	0.22/8.7
Packaging	50 gloves per dispenser; 10 dispensers per carton; 500 gloves per carton **Sizes 10.5-11 and 11.5-12:** 44 gloves per dispenser; 440 gloves per carton

MICROFLEX® 93-283

MICROFLEX® 93-287

Comfortable, confident grip when handling wet, oily, or fatty foods and objects

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Splash

DESCRIPTION

- Mega texture surface for secure grip
- Generous fit for comfortable use with a cut-protective or thermal underglove
- Robust 0.20mm thickness resists tearing, for product protection
- AQL 1.5

IDEAL APPLICATIONS

- Cold storage
- Deboning, carving
- Food packaging
- Handling of frozen foodstuffs
- Janitorial, clean up and maintenance
- Primary food processing
- Processing meat, vegetables and dairy
- Sanitation
- Secondary food processing

MICROFLEX® 93-862 — Nitrile

Coating material	Nitrile
Grip design	Fully textured
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.16/6.3
Packaging	100 gloves per dispenser; 10 dispensers per carton

Comfortable expanded protection that masks dirt and stains

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT; EN ISO 374-5:2016 VIRUS; EN 421

EXTRA FEATURES

Anti-static EN 1149; Silicone-free; Splash; EN 455

DESCRIPTION

- Distinctive black colour hides appearance of oils, grease and grime
- Resists a range of chemicals, oils and solvents
- 300mm length for protection over the wrist and forearm
- Soft nitrile formulation provides comfort and dexterity
- Fully textured for a reliable, consistent grip
- Tested against both fentanyl and gastric acid to simulate hazardous, real world overdose situations

IDEAL APPLICATIONS

- Administering drugs
- Emergency services
- Equipment repair and maintenance
- Extra protection over wrist and forearm
- Inspection, selecting, checking parts
- Laboratory analysis and testing
- Raw material sample collection

MICROFLEX® 93-856 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11
Length (mm/in)	270/10.6
Palm thickness (mm/mil)	0.13/5.1
Finger thickness (mm/mil)	0.20/7.9
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Splash; EN 455

High-visibility nitrile glove – protection that you can see

DESCRIPTION

- Bright orange colour allows hands to be visible in low light situations and at greater distance
- Approved for use with chemotherapy drugs
- Works exceptionally well in oily environments
- AQL 1.5

IDEAL APPLICATIONS

- Laboratory analysis and testing
- Maintenance and equipment clean-up
- Assembly and inspection
- Protection from blood and other bodily fluids

MICROFLEX® 93-853 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11, 11.5-12
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.14/5.5
Finger thickness (mm/mil)	0.21/8.3
Packaging	50 gloves per dispenser; 10 dispensers per carton **Size 11.5-12:** 40 gloves per dispenser

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT; EN ISO 374:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Splash; EN 455

Durable extra protection for high-risk chemicals and drugs

DESCRIPTION

- Increased strength and durability for maximum protection
- Exceptional barrier integrity with 0.65 AQL
- Approved for use with chemotherapy drugs
- Extended cuff provides additional protection for the wrist and forearm in hazardous environments

IDEAL APPLICATIONS

- Lab analysis and testing
- Maintaining equipment and instruments
- Preparing pharmaceutical products
- Protection from blood and other bodily fluids

TouchNTuff® 92-605 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.12/4.7
Finger thickness (mm/mil)	0.16/6.2
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

Proven splash resistance against hazardous chemicals

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT; EN ISO 374-5:2016 VIRUS; EN 421

EXTRA FEATURES

Anti-static EN 1149; Silicone-free; Splash

TECHNOLOGIES

TNT™ Chemical Splash Resistance Technology

DESCRIPTION

- Made with proprietary Ansell nitrile formulation
- Enhanced chemical splash protection and increased comfort
- 300mm length for protection of the wrist and the forearm
- AQL 1.5

IDEAL APPLICATIONS

- Chemical handling
- Laboratory analysis
- Light-assembly tasks
- Pharmaceuticals

TouchNTuff® 93-163 — Nitrile

Coating material	Nitrile
Grip design	Fully textured
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	355/14
Palm thickness (mm/mil)	0.17/6.7
Finger thickness (mm/mil)	0.20/7.9
Packaging	50 gloves per dispenser; 10 dispensers per carton

CATEGORY III

Reliable performance and chemical protection

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS; EN 421

EXTRA FEATURES

Anti-static EN 1149; Silicone-free; Splash

DESCRIPTION

- 355 mm length for added protection of the forearm
- Fully textured for a reliable grip
- Excellent puncture resistance and excellent dexterity
- AQL 1.5

IDEAL APPLICATIONS

- Laboratory analysis
- Light-assembly tasks
- Maintenance
- Food processing

TouchNTuff® 92-665 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.12/4.7
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

Robust, extended cuff protection for food processing and heavy-duty jobs

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Silicone-free; Splash

DESCRIPTION

- Made with proprietary nitrile formulation for increased comfort
- 100% nitrile; no waxes, silicone or plasticisers
- Textured fingertips for secured grip
- AQL 1.5

IDEAL APPLICATIONS

- Chemical industry
- Intricate parts handling
- Laboratory analysis

VersaTouch® 92-481 — Nitrile

Coating material	Nitrile
Grip design	Textured finish
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.16/6.3
Packaging	100 gloves in a bag; 10 bags per carton

CATEGORY III

Extended protection for food handling jobs

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

EXTRA FEATURES

Anti-static EN 1149; Splash

DESCRIPTION

- Ideal for applications where a longer glove with lighter weight is required
- Polybag packaging ideal for wet environments
- AQL 1.5

IDEAL APPLICATIONS

- All final stages of meat or fish processing
- Catering
- Dairy processing
- Prepared meals

MICROFLEX® NeoTouch™ 25-201 — Neoprene (Polychloroprene)

Coating material	Neoprene (Polychloroprene)
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	285/11.2
Palm thickness (mm/mil)	0.13/5.1
Finger thickness (mm/mil)	0.16/6.3
Packaging	100 gloves per dispenser; 10 dispensers per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT · EN ISO 374-5:2016 VIRUS · EN 421

EXTRA FEATURES

Anti-static EN 1149 · Splash

A unique combination of allergy prevention and comfort

DESCRIPTION

- Polymer inner coating for easy donning
- Excellent splash resistance to most acids and alcohols
- Textured fingertips to reduce the force required to grip dry, wet or oily objects
- Long cuff protecting the wrist and the forearm
- AQL 1.5

IDEAL APPLICATIONS

- Sampling taking and processing
- Testing
- Transferring liquids and solids

FAQ

WHEN DOES A PPE GLOVE BECOME A CATEGORY III GLOVE FOR CHEMICAL PROTECTION?

According to the Personal Protective Equipment Regulation (PPER), (EU) 2016/425, any PPE that protects against risks that may cause very serious consequences such as death or irreversible damage to health relating to substances and mixtures which are hazardous to health is Category III.

Any glove that protects against 'cleaning materials of weak action or prolonged contact with water are defined as Category I. So any glove that is intended to protect against anything other than the weakest of chemicals is a Category III glove.

WHAT IS MEANT BY CHEMICAL PERMEATION AND PENETRATION?

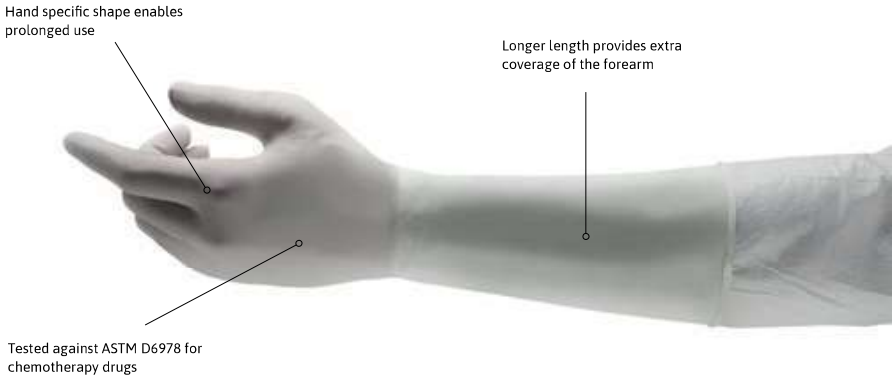
Chemical permeation is the process by which a chemical moves through a protective glove material on a molecular level.

Permeation involves the following: absorption of molecules of the chemical into the contacted (outside) surface of a material, diffusion of the absorbed molecules in the material, and desorption of the molecules from the opposite (inside) surface of the material.

Penetration is the movement of a chemical and/or micro-organism through porous materials, seams, pinholes, or other imperfections in a protective glove material or other barrier layer on a non-molecular level.

CLEAN/STERILE

BioClean™ N-Plus BNPS | Nitrile



Coating material	Nitrile
Grip design	Textured fingertips and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	400/16
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.09/3.54
Shape	Hand specific
Typical particle count	<3300
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

ELBOW LENGTH FOR EXTRA PROTECTION

DESCRIPTION

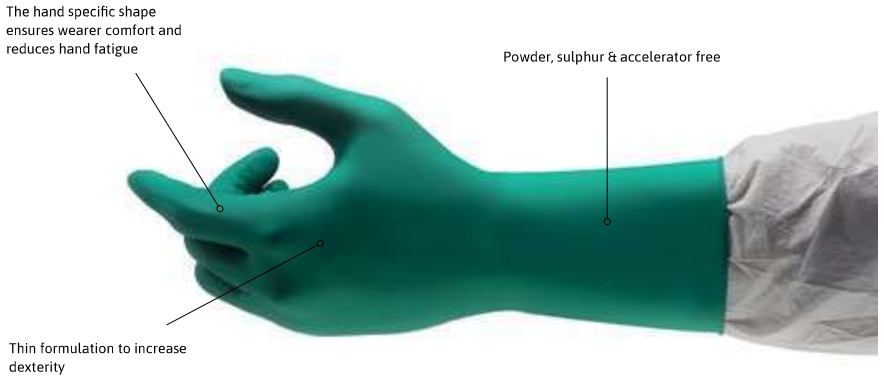
- Longer length for up to elbow protection
- Offer resistance to a range of chemicals
- Hand specific to enable prolonged use
- ISO Class 4 compatible
- AQL 0.65 for maximum barrier integrity
- Gamma irradiated to Sterility Assurance Level: 10^{-6}

KEY FEATURES

- Resistant to a range of chemicals
- Elbow length protection
- Powder-free & latex-free
- Non-particulating EasyTear packaging

Latex-free | Splash | Sterile

BioClean™ Emerald BENS | Nitrile



Coating material	Nitrile
Grip design	Textured fingertips and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.13/5.12
Cuff thickness (mm/mil)	0.06/2.36
Shape	Hand specific
Typical particle count	<1200
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

CHEMICAL RESISTANT AND ACCELERATOR-FREE TO ENSURE SUPERIOR PROTECTION

DESCRIPTION

- Resistant to a wide range of chemicals
- Easily double-donned
- Accelerator-free and latex-free to reduce the risk of latex allergies
- Hand specific shape ensures wearer comfort and reduces hand fatigue
- Thin formulation enabling good dexterity
- AQL 0.65
- Low particle count, making it ideal for use in ISO Class 4 cleanrooms
- Approved and tested for use with chemotherapy drugs

KEY FEATURES

- Sterility Assurance Level: 10^{-6}
- Powder, sulphur & accelerator free
- Latex-free
- Textured surface with a smooth feel
- Easy double-donning
- Chemical splash protection and increased comfort

Latex-free | Splash | Sterile

BioClean™ Excell BEXS — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.12/4.72
Finger thickness (mm/mil)	0.17/6.69
Cuff thickness (mm/mil)	0.09/3.54
Shape	Hand specific
Typical particle count	3000
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Super tactility with a comfortable fit

DESCRIPTION

- Resistance to a range of chemicals
- Hand specific to reduce wearer hand fatigue
- Featuring a textured surface enabling good grip and dexterity
- AQL 1.5
- Gamma irradiated to Sterility Assurance Level: 10^{-6}

KEY FEATURES

- Accelerator-free
- Powder-free & latex-free
- Good ESD properties
- Non-particulating EasyTear packaging

Latex-free Splash Sterile

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Jade BJAS — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	5.0-5.5, 6.0-6.5, 7.0-7.5, 8.0-8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.12/4.72
Cuff thickness (mm/mil)	0.06/2.36
Shape	Ambidextrous
Typical particle count	<1200
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Durable and easy donnable, with good in-use ESD properties for sterile environments

DESCRIPTION

- Ambidextrous with a beaded cuff for added strength
- Offering chemical splash protection
- Textured surface for enhanced grip
- AQL 1.5
- Ultra-low particle count for barrier integrity
- Gamma irradiated to Sterility Assurance Level 10^{-6}

KEY FEATURES

- Double-donnable
- Accelerator-free
- Powder-free & latex-free
- Excellent ESD properties
- Beaded cuff
- Non-particulating EasyTear packaging

Latex-free Splash Sterile

Please note: Size 5.0-5.5 and 10.0 subject to a minimum order quantity (MOQ)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Nitramax BNMS — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.5, 7.0, 7.5, 8.0, 8.5, 9.0
Length (mm/in)	600/24
Palm thickness (mm/mil)	0.15/5.91
Finger thickness (mm/mil)	0.18/7.09
Cuff thickness (mm/mil)	0.09/3.54
Shape	Hand Specific
Typical particle count	<2600
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 10 outer bags per lined carton (100 pairs)

Durable, nitrile glove offering full arm protection

DESCRIPTION

- Full arm length providing extended protection
- Exceptional comfort and easy donning
- Good in-use ESD properties
- Splash protection against a range of chemicals
- Gamma irradiated to Sterility Assurance Level 10^{-6}
- AQL 1.5

KEY FEATURES

- Resistant to a range of chemicals
- Full arm protection
- Powder-free & latex-free
- Excellent ESD properties
- Beaded cuff
- Non-particulating EasyTear packaging

Latex-free Splash Sterile

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Indigo BNPLS — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	5.0-5.5, 6.0-6.5, 7.0-7.5, 8.0-8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.13/5.12
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.10/3.94
Shape	Ambidextrous
Typical particle count	<3500
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Indigo nitrile glove, offering chemical splash protection and excellent tactility when handling small apparatus

DESCRIPTION

- Textured fingers for enhanced tactility
- Latex-free to eliminate Type I allergies
- Processed to ensure ISO Class 4 & EU GMP Grade A compatibility
- Resistant to a wide range of chemicals
- Offer good in-use ESD properties
- AQL 0.65
- Gamma irradiated to Sterility Assurance Level 10^{-6}

KEY FEATURES

- Tested for use with chemotherapy drugs
- Powder-free & latex-free
- Beaded cuff for added strength and stability on the wrist
- Non-particulating EasyTear packaging

Latex-free Splash Sterile

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

TouchNTuff® 93-700 — Nitrile

Coating material	Nitrile
Grip design	Textured fingers
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.13/5.1
Finger thickness (mm/mil)	0.16/6.3
Cuff thickness (mm/mil)	0.08/3.1
Shape	Ambidextrous
Typical particle count	<1500
Compatibility	ISO Class 5
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 5 outer bags per master PE bag; 4 master bags per lined carton (200 pairs)

Sterile nitrile disposable glove compatible with Class 100/ISO 5 environments

DESCRIPTION

- TouchNTuff® 93-700 is an affordable, sterile nitrile glove that delivers superior protection and durability without compromising comfort
- AQL 1.5
- Affordable without compromising comfort
- Robust nitrile enhances mechanical protection

KEY FEATURES

- Compatible with Class 100/ ISO 5/Grade A Cleanroom Environments
- Proprietary Ansell nitrile offers superior chemical splash protection
- Silicone-free for product protection

CATEGORY III

PERFORMANCE RATINGS

BioClean™ P-Zero BPZS — Polychloroprene

Coating material	Polychloroprene
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.15/5.91
Finger thickness (mm/mil)	0.18/7.09
Cuff thickness (mm/mil)	0.11/4.33
Shape	Hand Specific
Typical particle count	<1300
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Tested for use with chemotherapy drugs

DESCRIPTION

- Tested against ASTM D 6978 standard for use with chemotherapy drugs
- Good in-use ESD properties
- Low particle count for product protection
- AQL 0.65
- Offer flexibility and comfort for the wearer enabling good dexterity

KEY FEATURES

- Powder-free & latex-free
- ESD properties
- Beaded cuff for strength
- Chemical resistant
- Non-particulating EasyTear packaging

CATEGORY III

PERFORMANCE RATINGS

BioClean™ Ultimate BUPS — Polychloroprene

Coating material	Polychloroprene
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.11/4.33
Finger thickness (mm/mil)	0.14/5.51
Cuff thickness (mm/mil)	0.09/3.54
Shape	Hand Specific
Typical particle count	<1300
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Sterile polychloroprene glove offering cytotoxic protection and enhanced tactility

DESCRIPTION

- Providing good tactility for precision work and comfort for prolonged use
- Resistance to a range of chemicals including chemotherapy drugs
- Good in-use ESD properties
- Latex-free and powder-free for extra sensitive wearers
- Low barrier AQL 0.65
- Packed and processed within an ISO Class 4 cleanroom

KEY FEATURES

- Powder-free & latex-free
- ESD properties
- Beaded cuff for strength
- Chemical resistant
- Double-donnable
- Non-particulating EasyTear packaging

CATEGORY III

PERFORMANCE RATINGS

BioClean™ Fusion S-BFAP — Polychloroprene

Coating material	Polychloroprene
Grip design	Textured Fingers
Cuff style	Beaded
Size	5.0-5.5, 6.0-6.5, 7.0-7.5, 8.0-8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.12/4.72
Cuff thickness (mm/mil)	0.07/2.76
Shape	Ambidextrous
Typical particle count	850
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Ultra-clean, tactile sterile cleanroom glove with proven chemical protection

DESCRIPTION

- BioClean™ Fusion Sterile Polychloroprene Cleanroom Gloves contain no natural latex proteins, are comfortable and thin to reduce wearer hand fatigue and increase tactility
- Double-donnable and features a beaded cuff for strength
- Approved and tested for use with chemotherapy drugs
- Ultra-clean with low particle count for reduced contamination risk

KEY FEATURES

- Increased tactility
- Powder-free & latex-free
- Beaded cuff for strength
- Non-particulating EasyTear packaging

CATEGORY III

PERFORMANCE RATINGS

TouchNTuff® 83-500 — Polyisoprene

Coating material	Polyisoprene
Grip design	Smooth
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.17-0.25/6.69-9.84
Finger thickness (mm/mil)	0.19-0.27/7.48-10.63
Cuff thickness (mm/mil)	0.16/6.23
Shape	Hand Specific with curved fingers
Typical particle count	<2500
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	1 pair per inner polybag; 10 pairs per outer polybag; 5 polybags per master polybags; 4 master polybags per carton; 200 pairs per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT · EN ISO 374-5:2016 VIRUS · EN 421

Ultra-soft, comfortable protection for sterile environments

DESCRIPTION

- TouchNTuff® 83-500 is an ultra-soft, sterile Polyisoprene glove suitable for Class 100/ISO 5 cleanroom environments
- It offers a comfortable, second skin feel for longer wear time and reduced hand fatigue
- The latex-free polyisoprene material offers the performance of natural rubber latex without the risk of latex sensitization. Ideal for double donning

KEY FEATURES

- Compatible with Class 100/ ISO 5/Grade A Cleanroom Environments
- Superior comfort with second skin feel
- Latex-free polyisoprene performance
- Reduces the risk of Type I allergies

Latex-free · Splash · Sterile

TECHNOLOGIES

SUREFIT™ TECHNOLOGY

BioClean™ Suprene BSNS — Neoprene

Coating material	Neoprene
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.16/6.30
Finger thickness (mm/mil)	0.18/7.09
Cuff thickness (mm/mil)	0.12/4.72
Shape	Hand Specific
Typical particle count	<1500
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C · EN ISO 374-5:2016 VIRUS · EN 421

Sterile neoprene cleanroom glove with superior comfort

DESCRIPTION

- Resistant to a range of chemicals
- Designed for easy double-donning
- Feature good in-use ESD properties
- The hand specific shape and soft neoprene ensure a comfortable and ergonomic fit

KEY FEATURES

- Powder-free & latex-free
- Double-donnable
- Strong & durable
- Non-particulating EasyTear packaging
- AQL 1.5

Latex-free · Splash · Sterile

TouchNTuff® DermaShield™ 73-701 — Neoprene

Coating material	Neoprene
Grip design	Textured fingers
Cuff style	Straight with SUREFIT™ TECHNOLOGY
Size	6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.18/7
Finger thickness (mm/mil)	0.19/8.3
Cuff thickness (mm/mil)	0.15/5.9
Shape	Hand Specific with curved fingers
Typical particle count	<2000
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	1 pair per inner poly pack; 10 inner poly packs per inner polybag; 5 outer polybags per bag; 4 bags per master bag; 1 master bag of 200 pairs per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type A KLMNPT · EN ISO 374-5:2016 VIRUS · EN 421

Superior protection for clean & sterile environments designed to minimize allergic reactions

DESCRIPTION

- TouchNTuff® DermaShield™ 73-701 is the ideal glove for workers in aseptic environments who are concerned about allergy risks
- Its proprietary material formation is free of latex proteins and accelerators that can cause allergic reactions. Ansell SureFit Technology™ helps prevent cuff roll down

KEY FEATURES

- Aseptic environment
- Class 100/ISO 5/Grade A Cleanroom Suitable
- Avoids type I and IV allergies
- Greater durability
- Increased chemical splash protection

Latex-free · Splash · Sterile

TECHNOLOGIES

SUREFIT™ TECHNOLOGY

DermaShield™ 73-711 — Neoprene

Coating material	Neoprene
Grip design	Smooth
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.15-0.21/5.90-8.27
Finger thickness (mm/mil)	0.16-0.22/6.23-8.66
Cuff thickness (mm/mil)	0.12-0.17/4.72-6.69
Shape	Hand Specific with curved fingers
Typical particle count	<3500
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	20 pairs per inner polybag; 1 inner polybag per outer poly bag; 2 outer polybags per bag; 5 bags per master bag; 1 master bag of 200 pairs per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type A KLMNPT · EN ISO 374-5:2016 VIRUS · EN 421

Neoprene, chemical accelerator-free offering unsurpassed combination of sensitivity and durability for clean environments

DESCRIPTION

- DermaShield™ 73-711 is the ideal glove for workers in aseptic environments who are concerned about allergy risks
- Its proprietary material formulation is free of latex proteins and accelerators that can cause allergic reactions
- A beaded cuff provides a secure fit over the upper arm

KEY FEATURES

- Compatible with Class 100/ ISO 5/Grade A Cleanroom Environments
- Thin design for superior tactile sensitivity
- Broad chemical splash resistance
- Prevents Type I and Type IV allergies

Latex-free · Splash · Sterile

TECHNOLOGIES

SUREFIT™ TECHNOLOGY

TouchNTuff® 73-500 — Neoprene

Coating material	Neoprene
Grip design	Smooth
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.10-0.15/5.90-5.91
Finger thickness (mm/mil)	0.11-0.17/4.33-6.69
Cuff thickness (mm/mil)	0.11-0.17/4.33-6.69
Shape	Hand Specific with curved fingers
Typical particle count	<2500
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	1 pair per inner poly pack; 10 inner poly packs per inner polybag; 5 outer polybags per bag; 4 bags per master bag; 1 master bag of 200 pairs per carton

Neoprene, chemical accelerator-free offering unsurpassed combination of sensitivity and durability for sterile environments

DESCRIPTION

- For Class 100/ISO 5 cleanroom wet and dry applications, the TouchNTuff® 73-500 is a thin, sterile Neoprene glove
- Offers added tactile sensitivity and provides chemical splash resistance against a broad range of chemicals

KEY FEATURES

- Aseptic environment
- Class 100/ISO 5/Grade A Cleanroom Suitable
- Thin design for superior tactile sensitivity
- Enhanced comfort from material design
- Ideal for double donning
- Avoids type I and type IV allergies

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KLT · EN ISO 374-5:2016 VIRUS · EN 421

TECHNOLOGIES

Latex-free · Splash · Sterile

BioClean™ Alpha AL300 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.18/7.09
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.16/6.30
Shape	Hand Specific
Typical particle count	<3500
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear; PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

Strong and durable latex cleanroom gloves, with extra thick beaded cuff for added stability on the arm

DESCRIPTION

- BioClean™ Alpha Sterile Latex Gloves provide exceptional flexibility, and are anatomically shaped for enhanced wearer comfort
- An extra thick beaded cuff adds strength and stability on the arm, and reduces the risk of the gloves tearing when donning
- Gamma Irradiated to Sterility Assurance Level 10^{-6}

KEY FEATURES

- Exceptional flexibility and comfort
- Extra thick beaded cuff to reduce tearing when donning
- Powder-free
- EasyOn technology allows for easy double-donnable
- Non-particulating EasyTear packaging

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C · EN ISO 374-5:2016 VIRUS · EN 421

Splash · Sterile

BioClean™ Advance BASL — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.11/4.33
Shape	Hand Specific
Typical particle count	<2000
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

The ultimate double-donnable glove, when double protection is required

DESCRIPTION

- Anatomically shaped providing flexibility and wearer comfort
- Natural-coloured 300mm (12") length gloves
- Designed to be easily double-donnable
- Featuring a textured surface for enhanced grip and a beaded cuff for stability on the arm
- Providing chemical splash protection
- AQL 0.65 barrier integrity

KEY FEATURES

- Flexible & comfortable
- Powder-free beaded cuff
- Easy double-donning
- Non-particulating EasyTear packaging

Splash · Sterile

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C · EN ISO 374-5:2016 VIRUS · EN 421

BioClean™ Prelude BPSL — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	5.0-5.5, 6.0-6.5, 7.0-7.5, 8.0-8.5, 9.0, 10.0
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.11/4.33
Shape	Ambidextrous
Typical particle count	<1500
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear; PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

The cost effective latex cleanroom glove

DESCRIPTION

- Designed for easy double-donning and providing exceptional flexibility and comfort for increased dexterity and prolonged use
- The natural coloured 300mm (12") long, latex gloves feature a textured surface for enhanced grip and a beaded cuff for stability on the arm
- Low particle count ensures compatibility within controlled environments
- AQL 1.5

Please note: All sizes subject to a minimum order quantity (MOQ)

KEY FEATURES

- Powder-free
- Beaded cuff
- Easy double-donning
- Non-particulating EasyTear packaging

Splash · Sterile

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C · EN ISO 374-5:2016 VIRUS · EN 421

BioClean™ Extra BLAS — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	S, M, L, XL
Length (mm/in)	400/16
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.21/8.27
Cuff thickness (mm/mil)	0.12/4.72
Shape	Ambidextrous
Typical particle count	<2400
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 20 outer bags per lined carton (200 pairs)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Unbeatable comfort and elbow length protection

DESCRIPTION

- At 400mm (16") BioClean™ Extra Sterile Latex Gloves provide elbow length protection and flexibility and comfort for prolonged use
- This natural-coloured glove features a textured surface and a beaded cuff for strength and stability on the arm

KEY FEATURES

- Flexible & comfortable
- Elbow length protection
- Powder-free
- Beaded cuff
- Easy double-donning
- Non-particulating EasyTear packaging

Splash; Sterile

BioClean™ Maxima BLLS — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	600/24
Palm thickness (mm/mil)	0.18/7.09
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.12/4.72
Shape	Hand Specific
Typical particle count	<1200
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 10 outer bags per lined carton (100 pairs)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Full arm protection within a sterile environment, providing extra coverage and protection to the upper arm

DESCRIPTION

- Anatomically shaped and 600mm (24") long providing extended coverage, to ensure arm is fully protected when handling chemicals
- Flexible and comfortable enabling prolonged use
- Featuring a textured surface for enhanced tactility
- A beaded cuff provides strength and stability on the arm
- Approved for use with a number of chemicals
- AQL barrier integrity of 1.5

Please note: Size 6.0 & 10.0 subject to a minimum order quantity (MOQ)

KEY FEATURES

- Flexible & comfortable
- Shoulder length protection
- Powder-free beaded cuff
- Easy double-donning
- Non-particulating EasyTear packaging

Splash; Sterile

AccuTech® 91-250 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingertips
Cuff style	Straight
Size	6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	285/11.2
Palm thickness (mm/mil)	0.21/8.3
Finger thickness (mm/mil)	0.22/8.7
Cuff thickness (mm/mil)	0.25/9.8
Shape	Hand Specific
Typical particle count	<3500
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	1 pair per inner poly pack; 10 inner poly packs per inner polybag; 5 outer polybags per bag; 4 bags per master bag; 1 master bag of 200 pairs per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B LPT; EN ISO 374-5:2016 VIRUS

Comfort and easy donning for sterile environments

DESCRIPTION

- For aseptic applications, AccuTech® 91-250 is a thick, clean and sterile latex with a hand-specific design for comfort and dexterity
- A silicone coating ensures easy donning and double gloving

KEY FEATURES

- Thick latex glove designed for comfort and dexterity
- Compatible with Class 100/ ISO 5/Grade A Cleanroom environments
- Silicone coated for easy donning and double gloving
- Low protein content reduces risk of allergy

Splash; Sterile

AccuTech® 91-225 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingertips
Cuff style	Straight
Size	6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	285/11.2
Palm thickness (mm/mil)	0.23/9.1
Finger thickness (mm/mil)	0.23/9.1
Cuff thickness (mm/mil)	0.25/9.8
Shape	Hand Specific
Typical particle count	<3500
Compatibility	ISO Class 5 & EU GMP Grade A
Packaging	1 pair per inner poly pack; 10 inner poly packs per inner polybag; 5 outer polybags per bag; 4 bags per master bag; 1 master bag of 200 pairs per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B LPT; EN ISO 374-5:2016 VIRUS

Comfort and outstanding fingertip sensitivity for sterile environments

DESCRIPTION

- For aseptic applications, AccuTech® 91-225 is a thick, clean and sterile latex with a hand-specific design for comfort and dexterity

KEY FEATURES

- Thick latex glove designed for comfort and dexterity
- Compatible with Class 100/ ISO 5/Grade A Cleanroom environments
- Low protein content reduces risk of allergy

Splash; Sterile

BioClean™ Cut Resistant Liner S-BCRL | Ultra high molecular weight polyethylene

Coating material	Ultra high molecular weight polyethylene
Grip design	Knitted
Cuff style	Knitted
Size	XS, S, M, L, XL
Length (mm/in)	160-200/6.30-7.87 (dependent on size)
Shape	Ambidextrous
Compatibility	Intended to be worn under a suitable cleanroom glove
Packaging	One pair per inner PE wallet; one wallet per sealed EasyTear PE pouch; 10 pouches per sealed outer PE bag; 10 outer bags per lined carton (100 pairs)

CATEGORY II

PERFORMANCE RATINGS

A TRUE CLEAN AND STERILE CUT PROTECTION LAYER

DESCRIPTION

- Sterile cut resistant glove liners feature Dyneema® Diamond yarn and provide cut resistance and protection during rigorous procedures
- Specifically constructed for optimal dexterity, comfort, and fit and offering EN388 and ANSI cut level II protection
- The cut resistant glove liners are designed to be worn between two cleanroom gloves to offer cut protection when handling sharp objects or cleaning apparatus which pose a cut risk
- Gamma Irradiated to Sterility Assurance Level 10^{-6}

KEY FEATURES

- EN388 and ANSI Level II cut resistance
- Optimal dexterity, comfort and fit
- Recommended to be worn between two cleanroom gloves

Sterile

SIZES

XS | S | M | L | XL

BioClean™ Nerva BNAL — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	S, M, L, XL, XXL
Length (mm/in)	400/16
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.16/6.30
Cuff thickness (mm/mil)	0.08/3.15
Shape	Ambidextrous
Typical particle count	<2800
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Extra length for extra protection when handling chemicals

DESCRIPTION

- The 400mm (16") elbow length provides coverage of the forearm reducing the risk of cross contamination and protecting the wearer from chemical hazards
- Good ESD properties making the Nerva ideal for use in electronically sensitive environments
- Featuring a textured surface for good tactility and a beaded cuff for strength and stability on the arm
- Resistant to a range of chemicals including disinfectants
- Designed for easy double-donning

KEY FEATURES

- Resistant to a range of chemicals
- Beaded cuff
- Double-donnable
- AQL 0.65

Splash

BioClean™ Biotac BIOTAC — Nitrile

Coating material	Nitrile
Grip design	Textured fingers
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL, XXXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.11/4.33
Finger thickness (mm/mil)	0.17/6.69
Cuff thickness (mm/mil)	0.08/3.15
Shape	Ambidextrous
Typical particle count	<1500
Compatibility	ISO Class 5
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Please note: size XXXL subject to minimum order quantity (MOQ)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Flexible and comfortable cleanroom glove offering excellent grip and chemical resistance

DESCRIPTION

- Low levels of particles for excellent product protection
- Contains no natural latex proteins
- Resistant to a range of chemicals including acids and disinfectants
- Flexible and comfortable formulation offering the wearer good dexterity for prolonged use

KEY FEATURES

- Resistant to a range of chemicals
- Latex & powder-free
- Non-particulating EasyTear packaging
- AQL 1.5

Splash

BioClean™ Nano4 NAN4 — Nitrile

Coating material	Nitrile
Grip design	Textured fingers
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.16/6.30
Cuff thickness (mm/mil)	0.08/3.15
Shape	Ambidextrous
Typical particle count	<800
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Please note: Size XS subject to a minimum order quantity (MOQ)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Enhanced tactility and accelerator-free to eliminate allergy risks

DESCRIPTION

- Textured fingers to provide enhanced tactility when handling small apparatus and carrying out intricate tasks
- Ultra-clean with low particle count, reducing the risk of contamination into the controlled environment
- Accelerator-free and latex-free to reduce the risk of allergies
- Resistant to a range of chemicals including disinfectants
- Suitable for use in electrically sensitive applications

KEY FEATURES

- Resistant to a range of chemicals
- Ultra low particle count
- Latex-free
- Powder, Sulphur & Accelerator-free
- AQL 1.5

Latex-free; Splash

BioClean™ Nano5 NAN5 — Nitrile

Coating material	Nitrile
Grip design	Textured fingers
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.16/6.30
Cuff thickness (mm/mil)	0.08/3.15
Shape	Ambidextrous
Typical particle count	1700
Compatibility	ISO Class 5
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Non-sterile nitrile cleanroom glove with excellent grip for dexterity

DESCRIPTION

- Textured fingers to provide enhanced tactility
- Latex-free to eliminate risk of Type I allergies
- Resistant to a range of chemicals
- Ideal for use within electrically sensitive applications

KEY FEATURES

- Resistant to a range of chemicals
- Powder-free & latex-free
- Non-particulating EasyTear packaging
- AQL 1.5

Latex-free; Splash

BioClean™ Synergy BSAN — Nitrile

Coating material	Nitrile
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.12/4.72
Cuff thickness (mm/mil)	0.06/2.36
Shape	Ambidextrous
Typical particle count	<1200
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C; EN ISO 374-5:2016 VIRUS; EN 421

Ultra thin formulation enabling superior tactility for the most intricate tasks

DESCRIPTION

- Latex-free, accelerator-free and sulphur-free BioClean™ Synergy Nitrile Gloves are the sensitive choice
- Offering resistance to a range of chemicals, including disinfectants
- Easy double-donning when extra protection is required
- Low particle count ensures product protection
- Featuring a textured surface and beaded cuff for strength and stability on the arm

KEY FEATURES

- Resistant to a range of chemicals
- Powder, sulphur & accelerator free
- AQL 1.5
- Easy double-donning
- Non-particulating EasyTear packaging

Latex-free; Splash

TouchNTuff® 93-300 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.13/5.1
Finger thickness (mm/mil)	0.16/6.3
Cuff thickness (mm/mil)	0.08/3.1
Shape	Ambidextrous
Typical particle count	1500
Compatibility	ISO Class 5
Packaging	50 gloves per poly bag; 2 poly bags per master poly bag; 10 master poly bags per lined carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKPT; EN ISO 374-5:2016 VIRUS; EN 421

Clean glove offering comfort and durability

DESCRIPTION

- TouchNTuff® 93-300 is an affordable, clean nitrile glove that delivers superior protection and durability without compromising comfort

KEY FEATURES

- Compatible with Class 100/ISO 5 Cleanroom Environments
- Proprietary Ansell nitrile offers superior chemical splash protection
- Robust design resists punctures and tears
- Silicone-free for product protection

Latex-free; Splash; Anti-static

Nitrilite™ 93-401 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5-5.5, 6-6.5, 7-7.5, 8-8.5, 9-9.5, 10-10.5
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.11/4.3
Finger thickness (mm/mil)	0.13/4.9
Cuff thickness (mm/mil)	0.08/3.1
Shape	Ambidextrous
Typical particle count	<400
Compatibility	ISO Class 4
Packaging	50 gloves per polybag, 2 polybags per master polybag; 10 master polybags per carton/case; 1000 gloves per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

Nitrile glove for ultra-cleanroom environment

DESCRIPTION

- Produced in a restricted powder-free environment, these nitrile gloves have remarkably low levels of extractable particles for outstanding product protection
- Superior levels of protection against punctures and chemicals are other features of these gloves
- Users wearing these gloves for a longer period can get a comfortable fit, attributed to the soft, flexible polymer formulation

KEY FEATURES

- Compatible with Class 10/ISO 4 cleanroom environments
- Very low levels of ionic content and particulate for excellent product protection

Latex-free; Splash; Anti-static; Silicone-free

Nitrilite™ 93-311 — Nitrile

Coating material	Nitrile
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.10/3.9
Finger thickness (mm/mil)	0.13/4.9
Cuff thickness (mm/mil)	0.075/3.0
Shape	Ambidextrous
Typical particle count	<2400
Compatibility	ISO Class 5
Packaging	50 Gloves per polybag 2 poly bags per master polybag; 10 master polybags per carton/case; 1000 gloves per carton

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B JKT; EN ISO 374-5:2016 VIRUS

Clean nitrile glove for product protection in life sciences and electronics

DESCRIPTION

- Manufactured in a controlled powder-free environment, and featuring low levels of extractable particles for reliable product protection
- They offer cleanliness to the level of 2400 Counts/cm²
- Users wearing these gloves for a longer term can enjoy a comfortable and improved fit, thanks to the soft, flexible polymer formulation

KEY FEATURES

- Compatible with Class 100/ISO 5 Cleanroom Environments
- Low levels of ionic content for excellent product protection
- Ideal for a wide range of electrically sensitive applications

Latex-free; Splash; Anti-static; Silicone-free

MICROFLEX® 93-360 — Nitrile & Neoprene

Coating material	Nitrile and Neoprene
Grip design	Textured fingertips
Cuff style	Beaded
Size	5.5-6, 6.5-7, 7.5-8, 8.5-9, 9.5-10, 10.5-11
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.198/7.9
Finger thickness (mm/mil)	0.20/7.9
Cuff thickness (mm/mil)	0.13/5.1
Shape	Ambidextrous
Compatibility	ISO Class 5
Packaging	50 gloves per polybag/ 10 polybags per carton/case

CATEGORY III

PERFORMANCE RATINGS

EN 388:2016 2000X · EN ISO 374-1:2016 Type A JKLOPST · EN ISO 374-5:2016 VIRUS · EN 421

FEATURES

Latex-free · Anti-static EN 1149 · Silicone-free · Splash

Thinnest chemical resistant synthetic composite disposable glove for cleanroom environments

DESCRIPTION

- MICROFLEX® 93-360 is a thin, chemical resistant disposable glove designed for cleanroom environments
- It is made of an innovate, synthetic composite material for tough chemical protection
- The extra soft formulation and ergonomic design provides a comfortable fit and feel for extended wear times

KEY FEATURES

- Cleanroom glove compatible with controlled environments
- Three layer design for superior protection against harsh chemicals including acids, solvents and bases
- Thin mil construction provides enhanced tactility and dexterity
- Nitrile and neoprene composite prevents risk of Type I allergies
- Easy donning interior provides a dry feel and eases the donning and doffing process
- Non-particulating packaging designed to reduce contamination

BioClean™ Fusion BFAP — Polychloroprene

Coating material	Polychloroprene
Grip design	Textured fingers
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.12/4.72
Cuff thickness (mm/mil)	0.07/2.76
Shape	Ambidextrous
Typical particle count	850
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C · EN ISO 374-5:2016 VIRUS · EN 421

Protects like nitrile, feels like latex

DESCRIPTION

- Excellent protection from a range of chemicals including acids and disinfectants
- High tactility and comfort for prolonged use
- Ultra clean providing product protection
- Double-donnable and features a beaded cuff for strength and stability on the arm

KEY FEATURES

- Low particulate count
- Powder-free & latex-free
- Excellent ESD properties
- Easy double-donning
- AQL 0.65

Latex-free · Splash

TouchNTuff® 73-300 — Neoprene

Coating material	Neoprene
Grip design	Smooth
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.10-0.15/5.90-5.91
Finger thickness (mm/mil)	0.11-0.17/4.33-6.69
Cuff thickness (mm/mil)	0.11-0.17/4.33-6.69
Shape	Hand specific with curved fingers
Typical particle count	2500
Compatibility	ISO Class 5
Packaging	20 pairs per inner polybag; 1 inner polybag per outer poly bag; 2 outer polybags per bag; 5 bags per master bag; 1 master bag of 200 pairs per carton/case

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KLT · EN ISO 374-5:2016 VIRUS · EN 421

Neoprene, chemical accelerator-free offering unsurpassed combination of sensitivity and durability for clean environments

DESCRIPTION

- For Class 100/ISO 5 cleanroom wet and dry applications, TouchNTuff® 73-300 is a thin Neoprene glove that offers added tactile sensitivity and provides chemical splash resistance against a broad range of chemicals. Ideal for double donning
- Thin ergonomic design for superior tactile sensitivity and reduction of hand fatigue
- Design and polymer thickness facilitate ease and comfort of double gloving

KEY FEATURES

- Compatible with Class 100/ISO 5 Cleanroom Environments
- Thin design for superior tactile sensitivity
- Broad chemical splash resistance
- Prevents Type I and Type IV allergies

Latex-free · Splash

TECHNOLOGIES

SUREFIT

DermaShield™ 73-721 — Neoprene

Coating material	Neoprene
Grip design	Textured fingers
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	300/11.8
Palm thickness (mm/mil)	0.15-0.21/5.90-8.27
Finger thickness (mm/mil)	0.16-0.22/6.23-8.66
Cuff thickness (mm/mil)	0.12-0.17/4.72-6.69
Shape	Hand specific with curved fingers
Typical particle count	3500
Compatibility	ISO Class 5
Packaging	20 pairs per inner polybag; 1 inner polybag per outer polybag; 2 outer polybags per bag; 5 bags per master bag; 1 master bag of 200 pairs per carton/case

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type A KLMNPT · EN ISO 374-5:2016 VIRUS · EN 421

Neoprene & chemical accelerator-free for advanced allergy protection and peace of mind in clean environments.

DESCRIPTION

- DermaShield™ 73-721 is the ideal glove for workers in clean environments who are concerned about allergy risks
- Its proprietary material formation is free of latex proteins and accelerators that can cause allergic reactions
- A beaded cuff provides a secure fit over the upper arm

KEY FEATURES

- Clean glove suitable for use in aseptic Class 100/ISO 5 Cleanroom environments
- Neoprene formulation free of latex proteins and accelerators that can cause skin irritation and Type I or Type IV allergic reactions
- Beaded cuff for enhanced fit over the upper arm
- Excellent puncture resistance and durability
- Superior chemical splash protection

Latex-free · Splash

TECHNOLOGIES

SUREFIT

TouchNTuff® 83-300 — Polyisoprene

Coating material	Polyisoprene
Grip design	Smooth
Cuff style	Beaded with SUREFIT™ TECHNOLOGY
Size	5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9
Length (mm/in)	295/11.6
Palm thickness (mm/mil)	0.17-0.25/6.69-9.84
Finger thickness (mm/mil)	0.19-0.27/7.48-10.63
Cuff thickness (mm/mil)	0.16/6.23
Shape	Anatomic with curved fingers
Typical particle count	2500
Compatibility	ISO Class 5
Packaging	20 pairs per polybag; 2 polybags per master polybag; 5 master polybags per carton; 200 pairs per carton

Ultra-soft, comfortable protection for clean environments

DESCRIPTION

- TouchNTuff® 83-300 is an ultra-soft Polyisoprene glove suitable for Class 100/ISO 5 cleanroom environments
- It offers a comfortable, second skin feel for longer wear time and reduced hand fatigue
- The latex-free polyisoprene material offers the performance of natural rubber latex without the risk of latex sensitization
- Ideal for double donning

KEY FEATURES

- Compatible with Class 100/ISO 5 Cleanroom Environments
- Added comfort with second skin feel
- Latex-free polyisoprene performance
- Prevents Type I allergies

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type B KPT | EN ISO 374-5:2016 VIRUS | EN 421

TECHNOLOGIES

BioClean™ Legend BLHN — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Fully textured
Cuff style	Beaded
Size	6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10.0
Length (mm/in)	290/11.4
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.11/4.33
Shape	Hand Specific
Typical particle count	<900
Compatibility	ISO Class 5
Packaging	50 right and 50 left hand gloves packed in separate sealed inner PE bags; These two inner PE bags (50xL and; 50xR gloves) per sealed outer PE bag; Four outer PE bags per carton liner (200 pairs per carton)

Anatomically shaped for outstanding wearer comfort and flexibility in use

DESCRIPTION

- Textured surface for enhanced tactility and beaded cuff for strength and stability on the arm
- Ultra-low particle count for product protection
- Non-particulating EasyTear packaging to reduce the risk of contamination into the controlled environment
- Offering chemical splash protection

KEY FEATURES

- Exceptional flexibility and comfort
- Textured for enhanced tactility
- Powder-free
- Beaded cuff for stability on the arm
- Easy double-donning
- AQL 1.5

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Legacy BLA2 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	XS, S, M, L, XL, XXL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.11/4.33
Shape	Ambidextrous
Typical particle count	<1500
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Ultimate comfort with easy double-donning

DESCRIPTION

- Textured surface for enhance grip
- Tested for use with disinfectants
- Provides ultimate wearer comfort with flexibility
- Easy double-donnable
- Beaded cuff for strength and stability on the arm

KEY FEATURES

- Flexible & comfortable
- Easy double-donning
- Textured
- Beaded cuff
- AQL 0.65

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Legion BLA3 — Natural Rubber Latex

Coating material	Natural rubber latex
Grip design	Textured fingers and palm
Cuff style	Beaded
Size	S, M, L, XL
Length (mm/in)	400/16
Palm thickness (mm/mil)	0.17/6.69
Finger thickness (mm/mil)	0.20/7.87
Cuff thickness (mm/mil)	0.11/4.33
Shape	Ambidextrous
Typical particle count	<1500
Compatibility	ISO Class 5
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Unbeatable comfort, with elbow length protection

DESCRIPTION

- Offering comfort, flexibility and elbow length protection
- Featuring a textured surface for enhanced grip
- Natural colour glove is powder-free
- Easily double-donnable

KEY FEATURES

- Flexible and comfortable
- Elbow length for extra protection
- Powder-free
- Easy double-donning
- AQL 1.5

CATEGORY III

PERFORMANCE RATINGS

EN ISO 374-1:2016 Type C | EN ISO 374-5:2016 VIRUS | EN 421

BioClean™ Vista BVA — Vinyl

Coating material	Vinyl Polyvinyl Chloride
Grip design	Smooth
Cuff style	Beaded
Size	S, M, L, XL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.09/3.54
Finger thickness (mm/mil)	0.10/3.94
Cuff thickness (mm/mil)	0.06/2.36
Shape	Ambidextrous
Typical particle count	<1300
Compatibility	ISO Class 4
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY I

Non-sterile Vinyl gloves, the economic alternative to nitrile

DESCRIPTION

- Offering an economic alternative to nitrile, BioClean™ Vista Vinyl (PVC) Cleanroom Gloves are latex-free and power-free
- The ambidextrous, clear 300mm (12") long gloves features a beaded cuff for added strength
- Ideal for use in electrostatic sensitive environments

KEY FEATURES

- Powder-free & latex-free
- Beaded cuff
- Non-particulating EasyTear packaging
- AQL 1.5

BioClean™ Vector BVA-E — Vinyl

Coating material	Vinyl Polyvinyl Chloride
Grip design	Smooth
Cuff style	Beaded
Size	S, M, L, XL
Length (mm/in)	300/12
Palm thickness (mm/mil)	0.09/3.54
Finger thickness (mm/mil)	0.10/3.94
Cuff thickness (mm/mil)	0.06/2.36
Shape	Ambidextrous
Typical particle count	<3000
Compatibility	ISO Class 5
Packaging	100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

CATEGORY I

Non-sterile Vinyl gloves, the economical alternative to nitrile

DESCRIPTION

- BioClean™ Vector Vinyl Gloves offer an economical alternative to nitrile whilst still providing tactility for precision work
- The clear 300mm (12") long powder-free vinyl cleanroom gloves are ambidextrous and feature a beaded cuff for strength and stability on the arm

KEY FEATURES

- Non-textured
- Beaded cuff for strength
- Thin for good tactility
- AQL 1.5

ISOLATOR & RABS GLOVES

BioClean™ GGL — Clean and Sterile Glove

Material	Nitrile
Glove design	5 Finger Ambidextrous Size 9.75
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.65
Re-order code: port size (in/mm)	GGL15NIT59: 6-8/152-203 GGL20NIT59: 8-10/203-254 GGL33NIT59: 10-12/254-305 GGL36NIT59: 12-14/305-356
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Validated Sterile Nitrile RABS/Isolator Gloves

DESCRIPTION

- BioClean™ validated sterile RABS and Isolator Gloves are manufactured from nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for use in product contact areas, our GGL series of gloves are fully validated for sterility with an SAL (Sterility Assurance Level) of 10^{-6} and are available in a range of port sizes

KEY FEATURES

- Tested against ASTM D6978-05 for handling chemo drugs
- Ultra-clean surface ensures product protection
- 100% inspected and air leak tested
- Suitable for autoclaving
- Can be sanitized by VHP or IPA

BioClean™ GHG — Clean and Sterile High Grip Glove

Material	Nitrile
Glove design	5 Finger Ambidextrous Size 9.75
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.65
Re-order code: port size (in/mm)	GHG15NIT59: 6-8/152-203 GHG20NIT59: 8-10/203-254 GHG33NIT59: 10-12/254-305 GHG36NIT59: 12-14/305-356
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Validated Sterile Nitrile High Grip RABS/Isolator Gloves

DESCRIPTION

- BioClean™ validated sterile RABS and Isolator Gloves are manufactured from nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for precision work when increased grip is required, our GHG series of high grip gloves are fully validated for sterility with an SAL (Sterility Assurance Level) of 10^{-6} and are available in a range of port sizes

KEY FEATURES

- Tested against ASTM D6978-05 for handling chemo drugs
- Ultra-clean surface ensures product protection
- 100% inspected and air leak tested
- Suitable for autoclaving
- Can be sanitized by VHP or IPA

BioClean™ GSL — Clean and Sterile Sleeve

Material	Nitrile
Surface	Smooth
Length (mm/in)	660/26
Re-order code: port size (in/mm)	GSL15NITPP26: 6-8/152-203 GSL20NITPP26: 8-10/203-254 GSL33NITPP26: 10-12/254-305 GSL36NITPP26: 12-14/305-356
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

Sterile Nitrile RABS/Isolator Sleeve

DESCRIPTION

- BioClean™ RABS & Isolator Sleeves are manufactured from nitrile with incredibly low levels of particles and excellent ESD properties. Designed for use in product contact areas
- BioClean™ RABS/Isolator sleeves are fully validated for sterility with an SAL (Sterility Assurance Level) of 10^{-6} and have a cuff ring diameter of 90mm/3.5" to fit most available cuff ring systems

KEY FEATURES

- Ultra-clean surface ensures product protection
- 100% inspected and air leak tested (prior to being guillotined)
- Suitable for autoclaving
- Can be sanitized by VHP or IPA

BioClean™ GGL30NITM9 — Clean and Sterile Mitten

Material	Nitrile
Glove design	Mitten
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.65
Port size (in/mm)	10-12/254-305
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Validated Sterile nitrile RABS/Isolator Mitten

DESCRIPTION

- BioClean™ validated sterile RABS and Isolator Mittens are manufactured from Nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for use in product contact areas, our GGL mittens are fully validated for sterility with an SAL (Sterility Assurance Level) of 10^{-6}

KEY FEATURES

- Tested against ASTM D6978-05 for handling chemo drugs
- 100% air leak tested
- Ultra-clean surface ensures product protection
- Suitable for autoclaving
- Can be sanitized by VHP or IPA

BioClean™ GSG10NIT80 — Clean and Sterile Sleeve/Glove System

Material	Nitrile sleeve/polychloroprene glove (BPZS)
Glove design	Hand specific glove
Surface	Textured glove
Cuff style	Beaded
Length (mm/in)	Complete System: 810/32
Palm thickness (mm/mil)	0.15/5.91
Finger thickness (mm/mil)	0.18/7.09
Port size (in/mm)	10-12/254-305
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One system-consisting of sleeve, size 8.0 glove (marked L) and channel ring/O-ring assembly packed in inner PE bag; One system-consisting of sleeve, size 8.0 glove (marked R) and channel ring/O-ring assembly packed in inner PE bag; two inner bags (two systems – one L & one R) packed per outer PE bag; 10 outer bags (20 systems) per lined white Correx box

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type B KOT · ISO 374-5: 2016 VIRUS

Validated Sterile Nitrile RABS/Isolator Sleeve/Glove System

DESCRIPTION

- Clean & sterile sleeve/glove system, Nitrile sleeve attached to a size 8.0 hand specific Polychloroprene (BioClean™ BPZS) glove by a channel ring and O-ring. Sold by the pair, individually packaged

KEY FEATURES

- Sleeve & glove tested against ASTM D6978-05 for handling chemo drugs
- Ultra-clean surface ensures product protection
- Sleeve 100% inspection & air leak tested (prior to being guillotined)

BioClean™ GSG10NIT85 — Clean and Sterile Sleeve/Glove System

Material	Nitrile sleeve/polychloroprene glove (BPZS)
Glove design	Hand specific glove
Surface	Textured glove
Cuff style	Beaded
Length (mm/in)	Complete System: 810/32
Palm thickness (mm/mil)	0.15/5.91
Finger thickness (mm/mil)	0.18/7.09
Port size (in/mm)	10-12/254-305
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One system-consisting of sleeve, size 8.5 glove (marked L) and channel ring/O-ring assembly packed in inner PE bag; One system-consisting of sleeve, size 8.5 glove (marked R) and channel ring/O-ring assembly packed in inner PE bag; two inner bags (two systems – one L & one R) packed per outer PE bag; 10 outer bags (20 systems) per lined white Correx box

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type B KOT · ISO 374-5: 2016 VIRUS

Validated Sterile Nitrile RABS/Isolator Sleeve/Glove System

DESCRIPTION

- Clean & sterile sleeve/glove system, Nitrile sleeve attached to a size 8.5 hand specific Polychloroprene (BioClean™ BPZS) glove by a channel ring and O-ring. Sold by the pair, individually packaged

KEY FEATURES

- Sleeve & glove tested against ASTM D6978-05 for handling chemo drugs
- Ultra-clean surface ensures product protection
- Sleeve 100% inspection & air leak tested (prior to being guillotined)

BioClean™ GSG10NITXLMA — Clean and Sterile Sleeve/Glove System

Material	Nitrile sleeve/polychloroprene glove (S-BFAP)
Glove design	Ambidextrous Glove
Surface	Textured glove
Cuff style	Beaded
Length (mm/in)	Complete System: 914/36
Palm thickness (mm/mil)	0.10/3.94
Finger thickness (mm/mil)	0.12/4.72
Port size (in/mm)	10-12/254-305
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One system-consisting of sleeve, size 8.0-8.5 glove and channel ring/O-ring assembly packed in inner PE bag; One system-consisting of sleeve, size 8.0-8.5 glove and channel ring/O-ring assembly packed in inner PE bag; two inner bags (two systems) packed per outer PE bag; 10 outer bags (20 systems) per lined white Correx box

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374-1:2016 Type C · ISO 374-5: 2016 VIRUS

Validated Sterile Nitrile RABS/Isolator Sleeve/Glove System

DESCRIPTION

- Clean & sterile sleeve/glove system, Nitrile sleeve attached to a size 8.0-8.5 ambidextrous Polychloroprene (BioClean™ S-BFAP) glove by a channel ring and O-ring. Sold by the pair, individually packaged

KEY FEATURES

- Sleeve & glove tested against ASTM D6978-05 for handling chemo drugs
- Ultra-clean surface ensures product protection
- Sleeve 100% inspection & air leak tested (prior to being guillotined)

HOW TO CONNECT A GLOVE TO AN ISOLATOR SLEEVE — INSTRUCTION SHEET

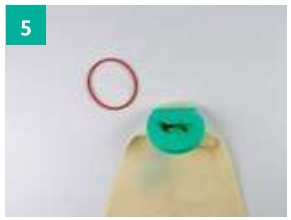
Please use the instructions below as a guide to attaching a glove (e.g BFAP) to an isolator sleeve (e.g GSL33NITPP26) with a BBCO-100 connector.

Prepare the isolator sleeve and connector ready for assembly, with the sleeve inside out

Take the sleeve and slide the connector over the bottom of it

Now, pull the bottom of the sleeve over the connector and tuck under the connector so that the sleeve is secured in place

Take the glove and feed it through the cuff connector, fingers first



Pull the cuff of the glove over the connector

Continue as in photo #5, ensuring to completely cover the sleeve cuff connector with the cuff of the glove

Take the silicone rubber O-ring and fix into groove of connector over the glove

Turn the assembled sleeve and glove the correct way round

Finally, place hand into fully assembled sleeve/glove system

BioClean™ CGL — Clean and Non-Sterile Glove

Material	Nitrile
Glove design	5 Finger Ambidextrous Size 9.75
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.65
Re-order code: port size (in/mm)	CGL20NIT59: 8-10/203-254 CGL33NIT59: 10-12/254-305 CGL36NIT59: 12-14/305-356
Compatibility	ISO Class 4
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Non-Sterile RABS/Isolator Gloves

DESCRIPTION

- BioClean™ RABS and Isolator Gloves are manufactured from Nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for use in product contact areas, our CGL series of gloves are cleanroom processed and packed, and are available in a range of portsizes

KEY FEATURES

- Tested against ASTM D6978 standard for handling chemo drugs
- Ultra-clean surface ensures product protection
- 100% inspected and air leak tested

BioClean™ CHG — Clean and Non-Sterile High Grip Glove

Material	Nitrile
Glove design	5 Finger Ambidextrous Size 9.75
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.65
Re-order code: port size (in/mm)	CHG15NIT59: 6-8/152-203 CHG20NIT59: 8-10/203-254 CHG33NIT59: 10-12/254-305 CHG36NIT59: 12-14/304-356
Compatibility	ISO Class 4
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Non-Sterile High-Grip RABS/Isolator Gloves

DESCRIPTION

- BioClean™ RABS and Isolator Gloves are manufactured from nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for precision work when increased grip is required, our non-sterile cleanroom processed and packed CHG series of high grip gloves are available in a range of port sizes

KEY FEATURES

- Tested against ASTM D6978 standard for handling chemo drugs
- Ultra-clean surface ensures product protection
- 100% inspected and air leak tested

BioClean™ CGL30NITM9 — Clean and Non-Sterile Mitten

Material	Nitrile
Glove design	Mitten
Surface	Smooth
Cuff style	Beaded
Length (mm/in)	840/33
Palm thickness (mm/mil)	0.45/17.72
Finger thickness (mm/mil)	0.55/21.66
Port size (in/mm)	10-12/254-305
Compatibility	ISO Class 4
Packaging	Triple bagged: One piece per sealed inner PE bag; one inner bag per sealed second inner PE bag; one second inner bag per sealed outer PE bag; 20 outer bags per lined inner white Correx polyethylene box (20 pieces)

PERFORMANCE RATINGS

EN 421: 2010 · EN ISO 374 Type A AJKNOT · ISO 374-5: 2016 VIRUS · EN 388: 2016 4101X

Non-sterile Nitrile RABS/Isolator Mitten

DESCRIPTION

- BioClean™ RABS and Isolator Mittens are manufactured from nitrile with incredibly low levels of particles and excellent ESD properties
- Designed for precision work when increased grip is required, our non-sterile CGL mittens are cleanroom processed and packed

KEY FEATURES

- Tested against ASTM D6978-05 for handling chemo drugs
- 100% air leak tested
- Ultra-clean surface ensures product protection
- Specially designed to minimize hand fatigue

FAQ

BIOCLEAN NITRILE RABS & ISOLATOR GLOVES ARE 100% INSPECTED, HOW?

Our manufacturing process has five separate product inspections throughout. Each Nitrile RABS/Isolator glove/mitten is visually inspected 100% for holes, along with water and air pressure testing.

This is achieved by the gauntlet being filled with air to a specified pressure before being submerged underwater for three minutes. The water is checked for any bubbles identifying whether the product has a pinhole leak.

This 100% inspection guarantees delivery of a glove or mitten free from holes, and is more rigorous than the AQL approach which is based on a statistical sampling plan.

WHAT PACKAGING DO YOU USE?

Nitrile RABs/Isolator Gloves are individually triple bagged in PE so that you can maintain cleanliness and sterility as you bring the gloves into your final production area.

AlphaTec® 55-100/55-101/55-104/55-105/55-107/55-109/55-110 — Natural Rubber Latex

Material	Natural rubber latex
Grip design	Smooth finish
Cuff style	Rolled beaded
Size	**55-100/55-101:** 8, 9, 10 **55-104/55-105/55-107/55-109/ 55-110:** 10
Length (mm)	**55-100/55-101:** 711 (port size 150) **55-104/55-105:** 813 (port size 200) **55-107:** 787 (port size 230) **55-109:** 813 (port size 250) **55-110:** 813 (port size 300)
Thickness (mm)	**55-100/55-104/55-110:** 0.51 **55-101/55-105/55-107/55-109:** 0.76
Packaging	1 pair per black bag; 10 bags per carton

PERFORMANCE RATINGS

EN 388:2016 2020X · EN ISO 374-1:2016 Type A KLNOPT · EN ISO 374-5:2016 VIRUS

55-100/104/110

EN 388:2016 2121A · EN ISO 374-1:2016 Type A KLNOPT · EN ISO 374-5:2016 VIRUS

55-101/105/107/109

CATEGORY III

EXTRA FEATURES

Splash

AlphaTec® 55-100

A comfortable choice in physically demanding work environments

DESCRIPTION

- Latex construction provides a good defense against tears, abrasions, cuts and punctures
- Translucent and unlined for effective cleaning
- AQL 0.65

IDEAL APPLICATIONS

- Vaccine manufacturing
- Aseptic filling
- Parenteral drug manufacturing

AlphaTec® 55-300/55-301/55-302/55-303/55-305/55-306/55-307/55-308 — Neoprene

Coating material	Neoprene
Grip design	Smooth finish
Cuff style	Rolled beaded
Size	**55-300:** 8, 9, 10, **55-301:** 9, 10 **55-302/55-303/55-305/55-306 /55-307/55-308:** 10
Length (mm)	**55-300:** 711 (port size 150) **55-301:** 711 (port size 180) **55-302/55-303:** 813 (port size 200) **55-305/55-306:** 813 (port size 250) **55-307/55-308:** 813 (port size 300)
Thickness (mm)	**55-300/55-301/55-302/55-305 /55-307:** 0.51 **55-303/55-306/55-308:** 0.76
Packaging	1 pair per black bag; 10 bags in a carton

PERFORMANCE RATINGS

EN 388:2016 2100A · EN ISO 374-1:2016 Type A JKLOPT · EN ISO 374-5:2016 VIRUS

55-300/301/302

EN 388:2016 2100A · EN ISO 374-1:2016 Type A JKLOPT · EN ISO 374-5:2016 VIRUS

55-305/307

EN 388:2016 3101A · EN ISO 374-1:2016 Type A JKLOPT · EN ISO 374-5:2016 VIRUS

55-303/306/308

CATEGORY III

EXTRA FEATURES

Immersion

AlphaTec® 55-300

Engineered for heavy duty environments with aggressive chemicals

DESCRIPTION

- Delivers exceptional chemical resistance against most acids, alcohols, oils, lubricants and hydrocarbons
- Excellent physical protection against abrasions and good protection against cuts and punctures
- Unlined for effective cleaning
- AQL 0.65

IDEAL APPLICATIONS

- Vaccine manufacturing
- Aseptic filling
- Parenteral drug manufacturing
- (HP) API manufacturing/ charging/filling
- Handling chemicals

AlphaTec® 85-300/85-301/85-302/ 85-303/85-304/85-305

Chlorosulfonated Polyethylene (CSM)

Coating material	Chlorosulfonated polyethylene
Grip design	Smooth
Cuff style	Rolled beaded
Size	9.5, 11
Length (mm)	**85-300/301:** 800 (port size 200) **85-302/303:** 800 (port size 250) **85-304/305:** 800 (port size 300)
Thickness (mm)	**85-300/302/304:** 0.40 **85-301/303/305:** 0.60
Packaging	1 pair per black bag; 10 bags per carton

AlphaTec® 85-300

CATEGORY III

PERFORMANCE RATINGS

EN 388:2016 3101A | EN ISO 374-1:2016 Type B AMP | EN ISO 374-5:2016 VIRUS | Immersion

EXTRA FEATURES

Increased comfort and protection in critical environments

DESCRIPTION

- Designed for high resistance against concentrated acids and bases
- Soft, flexible material designed for ease of use
- White colouring for easy detection of contamination
- AQL 1.5

IDEAL APPLICATIONS

- Vaccine manufacturing
- Aseptic filling
- Parenteral drug manufacturing
- (HP)API manufacturing/ charging/filling
- Handling chemicals

AlphaTec® 85-600/85-601/85-602

Ethylene Propylene Diene Rubber (EPDM+)

Coating material	Ethylene propylene diene rubber
Grip design	Smooth
Cuff style	Rolled beaded
Size	9.5, 11
Length (mm)	**85-600:** 800 (port size 200) **85-601:** 800 (port size 250) **85-602:** 800 (port size 300)
Thickness (mm)	0.51
Packaging	1 pair per black bag; 10 bags per carton

* in full compliance with FDA Food Contact regulations (FDA Positive List) 21 CFR 177 Indirect Food Additives

AlphaTec® 85-600

CATEGORY III

PERFORMANCE RATINGS

EN 388:2016 3100A | EN ISO 374-1:2016 Type B AMP | EN ISO 374-5:2016 VIRUS | Immersion

EXTRA FEATURES

FDA-approved, premium white material* with black lining for breach detection

DESCRIPTION

- Dual-layered breach detection system: unique white material on a black lining
- High-quality material, in compliance with FDA CFR21*
- Designed for repeated autoclave sterilisation (up to 50 times), reducing the need for glove replacements
- AQL 1.5

IDEAL APPLICATIONS

- Vaccine manufacturing
- Aseptic filling
- Parenteral drug manufacturing
- (HP)API manufacturing/ charging/filling
- Manufacturing/ compounding cytotoxic/ cytostatic drugs

AlphaTec®85-500/85-502/85-504 (Medium weight) 85-501/85-503/85-505 (Heavy weight)

Ethylene Propylene Diene Rubber (EPDM)

Coating material	Ethylene propylene diene rubber
Grip design	Smooth
Cuff style	Beaded
Size	9.5, 11
Length (mm)	**85-500/85-501:** 800 (port size 203mm) **85-502/85-503:** 800 (port size 250mm) **85-504/85-505:** 800 (port size 300mm)
Thickness (mm)	**85-500/85-502/85-504:** 0.4 **85-501/85-503/85-505:** 0.6
Packaging	10 pairs in black sealed bags per shipper carton

* in full compliance with FDA Food Contact regulations (FDA Positive List) 21 CFR 177 Indirect Food Additives

AlphaTec® 85-500

CATEGORY III

PERFORMANCE RATINGS

EN 388:2003 4111 | EN 374:2003 | EN 374:2003 AKL

EXTRA FEATURES

Anti-static

Premium FDA approved material reduces glove changes

DESCRIPTION

- High quality material, in compliance with FDA CFR21*
- Designed for repeated autoclave sterilization (up to 50 times), reducing the need for glove replacements
- Comfortable and dexterous with great tactile sensitivity
- Resistant against hydrogen peroxide solutions and common disinfecting chemicals
- Resists aging from exposure to oxygen, UV rays and ozone
- Withstands temperatures up to 130°C for repeated sterilization
- Halogen-free: suitable for disposal by incineration

IDEAL APPLICATIONS

- Electronics
- Pharmaceuticals

BODY PROTECTION

- Protective clothing according to EN 14126:2003 protection from infective agents
- Selecting the correct chemical protective clothing
- Finding the right chemical protection solution
- Clean & sterile disposable garment kits
- Clean & sterile/non-sterile disposable garments
- Chemo safety wear garments
- Low hazard liquid protection garments
- Body protection accessories

PROTECTIVE CLOTHING ACCORDING TO EN 14126:2003 PROTECTION FROM INFECTIVE AGENTS

Protective Clothing against infective agents has two main functions...

- to prevent infective agents from reaching the (possibly injured) skin
- to prevent the spreading of infective agents to other people and other situations, e.g. eating or drinking, when the person has taken their protective clothing off

In many work situations, i.e. microbiological laboratories, the infective agents can be contained and the risk of exposure limited to the occurrence of an accident.

However, in other types of work, i.e. sewage & waste water treatment, caring for infected animals, emergency clean-up; the organisms cannot be contained, exposing the worker continuously to the risk of infection by biological agents. In these situations the biological agents the worker is exposed to may not be known.

Applications where workers can be exposed to biological agents

- Waste water treatment works, sewage systems work
- Agriculture
- Food Industry
- Healthcare, hospitals, emergency services
- Clinical, veterinary laboratories
- Refuse disposal plants
- Activities where there is contact with animals and/or products of animal origin

Micro-organisms are a very heterogeneous group in that they come in all shapes and sizes, and their living conditions, survival abilities etc. vary widely. A distinction is made between four risk groups according to the risk of infection for humans. Details of these risk groups, along with their containment measures are found in European Directive 2000/54/EEC (on the protection of workers from the risk related exposure to biological agents at work).

EN 14126:2003

Due to the heterogeneity of micro-organisms, it is not possible to define performance criteria of protective clothing on the basis of risk groups, nor on the type of micro-organism. Also it may not be possible to define exactly the organisms the worker is exposed to. Hence the test methods in EN 14126:2003 focus on the medium containing the micro-organism, such as liquid, aerosol or a solid dust particle.

This protective clothing is category III according to the PPE Regulation 2016/425 and required to be subjected to 5 test methods as specified in the standard EN 14126:2003. The corresponding protective clothing "Type" is then prefixed with the letter "B" (e.g. Type 3-B) and the biohazard symbol is displayed.

EN 14126 Approved Product Range

AlphaTec® Product	Protection against biologically contaminated dust	Protection against biologically contaminated liquids	Tasks	Risk Groups
AlphaTec® 1800 Ts PLUS	✓	✓	A/B	1-2
AlphaTec®2000 STANDARD	✓	✓*	A/B	1-2
AlphaTec® 2000 Ts PLUS	✓	✓	A/B	1-3
AlphaTec® 2300 PLUS	✓	✓	A/B/C	1-4
AlphaTec® 2500 STANDARD & PLUS	✓	✓	A/B	1-3
AlphaTec® 3000, 4000, 5000 & MICROCHEM® 6000	✓	✓	B/C	1-4

Risk Group & Task Definition

Risk Group

1. Biological agent unlikely to cause sickness in humans
2. Biological agent that could cause sickness in humans and represent a danger to employees; substance dispersal amongst the population is unlikely; effective preventitive measures or treatment is normally possible
3. Biological agent that can cause severe illness in humans and represent a serious risk for employees; a risk of dispersal amongst the population may occur but effective preventive measures or treatment are normally possible
4. Biological agent that causes severe illness in humans and represents a serious risk for employees; the risk of dispersal amongst the population is high under some circumstances; effective preventive measures or treatment are not normally possible.

Tasks

A. Routine inspection = no contact with contaminated material or objects;
B. Handling and disposal of possibly contaminated material, objects or animals;
C. Performed tasks require application of cleaning and disinfecting chemicals

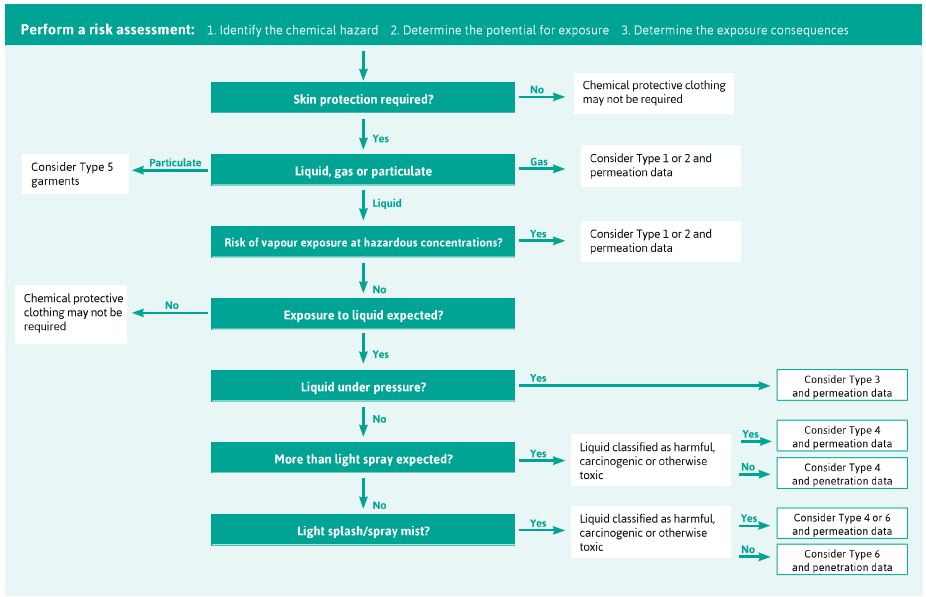
* AlphaTec® 2000 STANDARD includes bound seams which carry a higher risk of liquid ingress under pressure than the taped seams of AlphaTec® 2000 Ts PLUS. Therefore this should be taken into consideration when carrying out a risk assessment for PPE usage to ensure that the right garment is selected and is fit for purpose.

It is the user's responsibility to select an appropriate garment, gloves, boots, and other equipment for the particular use and to understand all warnings and information provided.
For further information on AlphaTec® products please visit **www.ansell.com**

SELECTING THE CORRECT CHEMICAL PROTECTIVE CLOTHING

Ansell has devised this simple flowchart as a basic tool to assist users and health and safety managers in selecting the correct type of chemical protective clothing.

It is important that the suitability of protective clothing for a particular use is determined by a trained expert in occupational health and safety. Many chemicals can cause serious and permanent injury to an unprotected or improperly protected user. Therefore, special emphasis has to be placed on the careful selection of chemical protective clothing when the potential for exposure to such chemicals has been identified.



Factors to consider

Advice on the suitability of chemical protective clothing for a task is very often based on reported permeation breakthrough times. The standard test methods used for measuring the breakthrough time (i.e. EN 16523, ISO 6529, ASTM F 739) are often regarded as representing the "worst-case scenario", since the chemical is held in direct contact with the barrier material. Intermittent contact or splashes of the chemical, in real life, may in fact lengthen the breakthrough time. Also, laboratory-generated chemical permeation data may not always reflect conditions in the workplace. Temperature, pressure, flexing etc. could all potentially have an impact on the breakthrough time. When choosing chemical protective clothing, consideration has to be given to permeation and penetration, and the physical performance attributes of the product (abrasion, tear, tensile, strength etc.). Other physical properties to consider are the strength of seams and closures (i.e. zips) as well as flexibility, weight and comfort factors (i.e. thermal insulation, breathability etc.). The best chemically resistant material will be ineffective if torn, cut, punctured or otherwise damaged.

Important note: This guide is simplified and as such the suitability of chemical protective clothing for a particular use should only be determined by a trained expert in occupational health and safety. It is the responsibility of the user to assess the types of hazards and the risks associated with exposure and to verify the information provided for the product to make a final decision on the appropriate personal protective equipment needed for their specific circumstance.

FINDING THE RIGHT CHEMICAL PROTECTION SOLUTION

By following our step-by-step guideline, you can easily identify the right suit for your chemical task.

1. Identify the "primary" exposure hazard(s)

Chemical(s)	Particulate contamination	Biological/infective agents
• Gas/vapour • Liquids • Solids • Pure or mixtures	• Airborne • Radioactive particulates	• Blood-borne • Airborne/solid

2. Determine the potential for exposure and consequence

and then identify the type or types to be considered.

"Type"	Type 1/2	Type 3	Type 4	Type 5	Type 6
Exposure level	Gas/vapour	Liquid spray under pressure (jet spray)	Liquid spray (shower/saturation)	Airborne particulates	Light spray/mist

3. Consider the 'secondary' hazard(s)

Heat and flame	Static discharge	Low visibility	Physical demands	Comfort

4. Review technical data

Review product technical data in relation to physical, barrier and comfort properties – match to assessment outcomes from stages 1–3.

5. Make your product selection

Identify the correct protection segment and category to find the right protection solutions matched to your safety needs and work environment.

Protection category	Protection segment
Gas and vapour protection A range of Type 1 and Type 1-ET gas-tight chemical protective suits for hazmat emergency response providing protection from dangerous and toxic liquid and gaseous chemicals.	Limited/single use
	Re-usable
Ventilated/air-fed protection Our PAPR, AIRline and AVANT AIRline suit range combines respiratory protection with our exceptional chemical barrier technologies.	Limited/single use
	Re-usable
Liquid spray and splash protection An extensive range of Type 3, Type 4 and Type 5 protective suits and partial body accessories utilising our exceptional chemical barrier technologies to provide protection against a wide range of organic and inorganic liquid chemicals, particulates and biohazards.	Limited/single use
	Re-usable
Particulate or low hazard liquid protection A broad range of lightweight, breathable Type 5 and Type 6 protective suits and partial body accessories providing protection from dry particulates, low-concentration liquid chemicals and biological agents.	Limited/single use
Chemical flame retardant protection Always to be worn over a thermal FR protective garment, our range of chemical protective suits provides EN ISO 14116 Index 1 limited flame spread protection along with liquid chemicals and particulates.	Limited/single use
Contaminated water diving protection An extensive portfolio of dry diving suits manufactured from a range of materials which include vulcanised rubber and PU suits which provide class-leading protection for divers in contaminated water.	Re-usable

BODY PROTECTION

- Clean & sterile disposable garment kits
- Clean & sterile /non-sterile disposable garments

BioClean-D™ S-BDKM | **Clean and Sterile**

STERILE DISPOSABLE COVERALL WITH COLLAR, HOOD WITH INTEGRATED FACEMASK & OVERBOOTS KIT

DESCRIPTION

Hood

Three-piece construction for better fit and comfort. Elasticated face opening, reinforced edges with integrated facemask

Category III PPE-Type PB[6]

Coverall with collar

Zip front with sealable flap cover. Thumb loops on wrist. Elasticated back, cuffs and ankles

Category III PPE-Type 5 & 6

Overboots

Elasticated top with ties at the top and ankles and slip-resistant soles.

Category III PPE-Type PB[6]

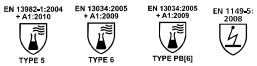
KEY FEATURES

- Exceptional comfort and fine particle protection
- All garment requirements in one package
- Reduces packaging waste
- Processed to ensure ISO Class 4 compatibility
- Low-linting and durable material
- Thumb loops to ensure a secure hold
- Slip-resistant soles

Material	**Facemask** Hydrophobic Polypropylene (non-woven) outer layer. Meltblown Polypropylene filter layer. Hygroscopic Polypropylene (non-woven) inner layer **Hood and coverall with collar** Anti-static BioClean-D™ CleanTough white material **Overboots** Anti-static BioClean-D™ CleanTough white material & polyurethane soles
Sterility	Sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One hood with integrated facemask, one coverall with collar, and one pair of overboots per sealed inner bag; one inner bag per sealed outer PE kit bag; 15 kits per carton

CATEGORY III

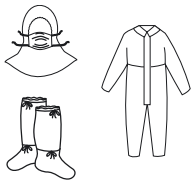
PERFORMANCE RATINGS



PROTECTION CATEGORY

BOUND SEAM

KIT CONFIGURATION



FEATURES

Elasticated back

Thumb loop

Overboots

BioClean-D™ S-BAKCT | **Clean and Sterile**

STERILE DISPOSABLE COVERALL WITH COLLAR, HOOD & OVERBOOTS KIT

DESCRIPTION

Hood

Three-piece construction for better fit and comfort. Elasticated face opening, reinforced edges

Category III PPE-Type PB[6]

Coverall with collar

Zip front with sealable flap cover. Thumb loops on wrist. Elasticated back, cuffs and ankles

Category III PPE-Type 5 & 6

Overboots

Elasticated top with ties at top and slip-resistant soles

Category III PPE-Type PB[6]

KEY FEATURES

- Exceptional comfort and fine particle protection
- All garment requirements in one package
- Reduces packaging waste
- Processed to ensure ISO Class 4 compatibility
- Low-linting and durable material
- Thumb loops to ensure a secure hold
- Slip-resistant soles

Material	**Hood and coverall with Collar** Anti-static BioClean-D™ CleanTough white material **Overboots** Anti-static BioClean-D™ CleanTough white material & polyurethane soles
Sterility	Sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One hood, one coverall with collar, and one pair of overboots per sealed inner bag; one inner bag per sealed outer PE kit bag; 15 kits per carton

CATEGORY III

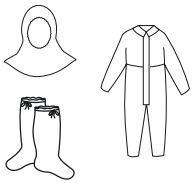
PERFORMANCE RATINGS

EN 13982-1:2004 + A1:2010 TYPE 5 | EN 13034:2005 + A1:2009 TYPE 6 | EN 13034:2005 + A1:2009 TYPE PB[6] | EN 1149-5: 2008

PROTECTION CATEGORY

BOUND SEAM

KIT CONFIGURATION



FEATURES

Elasticated back

Thumb loop

Overboots

BioClean-D™ S-BDHB | **Clean and Sterile**

STERILE DISPOSABLE COVERALL WITH HOOD & OVERBOOTS KIT

DESCRIPTION

Coverall with Hood

Zip front with sealable flap cover. Thumb loops on wrist. Elasticated three-piece hood, back, cuffs and ankles

Category III PPE-Type 5 & 6

Overboots

Elasticated top with ties at top and slip-resistant soles

Category III PPE-Type PB[6]

KEY FEATURES

- Exceptional comfort and particle protection
- All garment requirements in one package
- Reduces packaging waste
- Processed to ensure ISO Class 4 compatibility
- Low-linting and durable material
- Thumb loops to ensure a secure hold
- Slip-resistant soles

Material	**Coverall with Hood** Antistatic BioClean-D™ CleanTough white material **Overboots** Anti-static BioClean-D™ CleanTough white material & polyurethane soles
Sterility	Sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL, 3XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One coverall with hood and one pair of overboots per sealed inner bag; one inner bag per sealed outer PE kit bag; 15 kits per carton

CATEGORY III

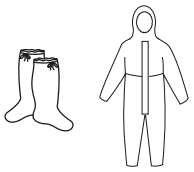
PERFORMANCE RATINGS

EN 13982-1:2004 + A1:2010 TYPE 5 | EN 13034:2005 + A1:2009 TYPE 6 | EN 13034:2005 + A1:2009 TYPE PB[6] | EN 1149-5: 2008

PROTECTION CATEGORY

BOUND SEAM

KIT CONFIGURATION



FEATURES

Elasticated back

Thumb loop

Overboots

BioClean-D™ S-BDKO | Clean and Sterile

STERILE DISPOSABLE COVERALL WITH COLLAR, HOOD & OVERBOOTS KIT

DESCRIPTION

Hood

Three-piece construction for better fit and comfort. Elasticated Face-opening with reinforced edges

Category III PPE-Type PB[6]

Coverall with Collar

Zip front with sealable flap cover. Thumb loops on wrist. Elasticated back, cuffs and ankles

Category III PPE-Type 5 & 6

Overboots

Elasticated top with ties at top and slip resistant soles

Category III PPE-Type PB[6]

KEY FEATURES

- Exceptional comfort and protection
- All garment requirements in one package
- Processed to ensure ISO Class 4 compatibility
- Low-linting and durable
- Thumb loops to ensure a secure hold
- Slip-resistant soles

Material	**Coverall with Collar and Hood** Anti-static BioClean-D™ CleanTough white material **Overboots** Anti-static BioClean-D™ CleanTough white material & polyurethane soles
Sterility	Sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One coverall per inner bag, one hood per inner bag, one pair of overboots per inner bag; three inner bags packed into one outer PE kit bag; 20 kits per carton

CATEGORY III

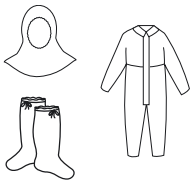
PERFORMANCE RATINGS

EN 13982-1:2004 + A1:2010 TYPE 5 | EN 13034:2005 + A1:2009 TYPE 6 | EN 13034:2005 + A1:2009 TYPE PB[6] | EN 1149-5: 2008

PROTECTION CATEGORY

BOUND SEAM

KIT CONFIGURATION



FEATURES

Elasticated back

Ankle & Overboots

Thumb loops & Overboots

BioClean-D™ S-BDSH | Clean and Sterile

DISPOSABLE DROP-DOWN GARMENT

DESCRIPTION

- The BioClean-D™ Drop-down Garment with Hood is a sterile anti-static disposable garment manufactured from low-linting CleanTough material
- Its unique design offers true aseptic donning, with internal coloured tabs to indicate safe touch points to prevent touching the outside surface
- The innovative up and over donning design eliminates the risk of the garment touching the floor, and strategically placed quick release tabs (to hold and remove during zip closure) ensure aseptic donning throughout the donning process

KEY FEATURES

- Quick & easy to don
- Anti-static & low-linting
- Unique up & over design
- Aseptic donning technique
- Foot-loop to aid smooth closure of zip

Material	Anti-static BioClean-D™ CleanTough white material
Sterility	Sterile
Construction	Bound seams with single needle stitching
Size	XS, S, M, L, XL, 2XL, 3XL, 4XL, 5XL, 6XL, 7XL, 8XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (20 pieces) Please note: sizes 3XL, 4XL, 5XL, 6XL, 7XL & 8XL 15 coveralls per carton

Please note: Sizes 4XL, 5XL, 6XL, 7XL & 8XL are subject to minimum order quantity (MOQ) and lead times

PERFORMANCE RATINGS

EN 1149-5: 2008

BOUND SEAM

FEATURES

Quick Release Tabs

Thumb loop

Ankle foot-loop

BioClean-D™ DROP-DOWN GARMENT STEP BY STEP DONNING PROCEDURE

1

Remove drop-down coverall.

2

Hold internal red tab in your right hand and white tab in your left. Shake the garment to un-fold.

3

Insert one arm and then the other. Put thumbs through thumbloops.

4

Hold the inside of the coverall and bring over your head.

5

Shake garment down allowing it to drop-down over body or use external tabs to pull garment down.

6

Put right foot through ankle opening and then foot-loop.

7

Hold blue tab on right side of waist. Pull zip up ensuring you keep your right leg straight.

BODY PROTECTION | CLEAN & STERILE DISPOSABLE GARMENTS

BioClean-D™ DROP-DOWN GARMENT STEP BY STEP DONNING PROCEDURE

8

Still holding blue tab pull zip round to the blue tab on the left hand side of waist.

9

Pull off blue tab on the right hand side.

10

Hold the blue tab on the left side of waist with your left hand.

11

Pull zip down with your right hand and remove the blue tab at the waist as you do so.

12

Pull zip down with your right hand and remove the blue tab at the waist as you do so.

13

Remove the zip tab by pulling the tab through the zip hole. Discard all tabs.

14

Don sterile BioClean-D™ overboots using aseptic technique. Complete gowning by donning goggles and a second pair of sterile gloves.

BioClean-D™ S-BDCHT and BDCHT | Clean and Sterile/Non-Sterile

DISPOSABLE COVERALL WITH HOOD

DESCRIPTION

- The BioClean-D™ Coverall with Hood is a disposable garment featuring a front zip with protective flap, elasticated hood, back, cuffs and ankles, and thumb loops to ensure a secure hold
- The anti-static lightweight low-linting CleanTough material provides comfort and protection from a range of chemicals

KEY FEATURES

- Anti-static lightweight low-linting material
- Three-piece hood construction for best fit
- Thumb loops to ensure a secure hold
- Zip with sealable cover
- Elasticated hood, back, cuffs and ankles
- Silicone-free

Material	Anti-static BioClean-D™ CleanTough white material
Sterility	Sterile or Non-Sterile
Construction	Bound seams with single needle stitching
Size	XS, S, M, L, XL, 2XL, 3XL, 4XL, 5XL, 6XL, 7XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (20 pieces) Please note: Size 3XL, 4XL, 5XL, 6XL & 7XL 15 pieces per carton

Please note: Sizes 4XL, 5XL, 6XL, 7XL & 8XL are subject to minimum order quantity (MOQ) and lead times

CATEGORY III

PERFORMANCE RATINGS

EN 13982-1:2004 + A1:2010 TYPE 5 | EN 13034:2005 + A1:2009 TYPE 6 | EN 1149-5: 2008

PROTECTION CATEGORY

BOUND SEAM

FEATURES

Elasticated back

Thumb loop

Elasticated ankle

BioClean-D™ S-BDCCT and BDCCT | Clean and Sterile/Non-Sterile

DISPOSABLE COVERALL WITH COLLAR

DESCRIPTION

- The BioClean-D™ Coverall with collar features a front zip with protective flap, elasticated back, cuffs and ankles, and thumb loops to ensure a secure hold
- The anti-static lightweight low-linting CleanTough material provides comfort and protection from a range of chemicals

KEY FEATURES

- Anti-static lightweight low-linting material
- Thumb loops to ensure a secure hold
- Zip with sealable cover
- Elasticated back, cuffs and ankles
- Silicone-free

Material	Anti-static BioClean-D™ CleanTough white material
Sterility	Sterile or non-sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL, 3XL, 4XL, 5XL, 6XL, 7XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (20 pieces) Please note: Size 3XL, 4XL, 5XL, 6XL, & 7XL 15 pieces per carton

Please note: sizes 3XL, 4XL, 5XL, 6XL & 7XL subject to minimum order quantity (MOQ) and lead time

CATEGORY III

PERFORMANCE RATINGS

EN 13982-1:2004 + A1:2010 TYPE 5 | EN 13034:2005 + A1:2009 TYPE 6 | EN 1149-5: 2008

PROTECTION CATEGORY

BOUND SEAM

FEATURES

Elasticated back

Thumb loop

Elasticated Ankle

BioClean-D™ S-BDFC and BDFC | **Clean and Sterile/Non-Sterile**

DISPOSABLE COVERALL WITH INTEGRATED BOOTS

DESCRIPTION

- The BioClean-D™ Coverall with Hood and Integrated Boots is a disposable garment offering comfort and head-to-toe protection
- Featuring a front zip with protective flap, elasticated hood, back, cuffs and ankles, and thumb loops to ensure a secure hold
- The integrated boots feature slip-resistant soles to ensure every step is taken with confidence

KEY FEATURES

- Anti-static lightweight and low-linting material
- Three-piece hood construction for best fit
- Thumb loops to ensure a secure hold
- Zip with sealable cover
- Elasticated hood, back, and cuffs
- Ties at ankles for a secure fit and slip resistant soles
- Silicone-free

Material	Anti-static BioClean-D™ CleanTough white material & polyurethane soles
Sterility	Sterile or non-sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, 2XL, 3XL, 4XL
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (20 pieces) Please note: sizes 3XL & 4XL 15 pieces per carton

Please note: Non-sterile version all sizes are subject to minimum order quantity (MOQ) and lead time

CATEGORY III

PERFORMANCE RATINGS

PROTECTION CATEGORY

BOUND SEAM

FEATURES

Elasticated back

Thumb loop

Integrated overboots

BioClean-D™ S-BDLC and BDLC | **Clean and Sterile/Non-Sterile**

DISPOSABLE LAB COAT

DESCRIPTION

- The BioClean-D™ disposable Lab Coat is manufactured from anti-static lightweight CleanTough material and features press stud fastenings, open cuffs and three pockets

KEY FEATURES

- Lightweight CleanTough material
- Press stud fastening
- Open cuffs & rear vent
- Three deep pockets
- Silicone-free

Material	Anti-static BioClean-D CleanTough white material
Sterility	Non-Sterile or Sterile
Construction	Bound seams with single needle stitching
Size	S, M, L, XL, XXL
Compatibility	Non-critical environments
Protection	• Liquid Splash
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 30 outer bags per lined carton (30 pieces)

CATEGORY III

PERFORMANCE RATINGS

PROTECTION CATEGORY

FAQ

WHAT IS CLEANTOUGH MATERIAL?

CleanTough material is spun bonded non-woven polypropylene laminated with a film of polyethylene. This allows comfort and flexibility during use and protection against fine sprays and particles.

WHAT IS THE DIFFERENCE BETWEEN TYPE 6 & TYPE PB[6]?

The coveralls are designed to provide whole body protection against light liquid spray and these are covered under Type 6. However, there are also items in the range which cover just part of the body e.g. sleeve covers. Because these only provide partial body protection they are referred to as PB[6].

BODY PROTECTION

CHEMO SAFETY WEAR GARMENTS

BioClean-C™ S-BCAS and BCAS | **Clean and Sterile/Non-Sterile**

CHEMOTHERAPY PROTECTIVE APRON WITH SLEEVES

DESCRIPTION

- The BioClean-C™ Chemotherapy Protection Apron with Sleeves is manufactured from lightweight lowlinting CleanTough blue material, and features tie tapes at the rear and an adjustable neck fastening for easy donning and comfort
- Providing protection against a range of chemotherapy drugs, and tested against ASTM F739-12 standard

KEY FEATURES

- Tested against permeation standard ASTM F739-12
- Tested against ISO 16604:2004 for penetration by blood-borne pathogens
- Tie tapes at rear
- 100% polyester elastic cuffs for a secure hold at wrist
- Ultrasonically sealed and taped seams
- Silicone-free

Material	BioClean-C™ CleanTough blue material and 100% polyester elasticated cuffs
Sterility	Sterile or Non-Sterile
Construction	Adjustable neck, tie fastening at waist. Ultrasonically sealed and taped seams
Size	S, M, L
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 50 outer bags per lined carton (50 pieces)

CATEGORY III

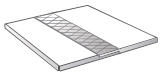
PERFORMANCE RATINGS

EN 13034:2005 + A1:2009

TYPE PB[6]

PROTECTION CATEGORIES

ULTRASONICALLY SEALED SEAMS



FEATURES

Ultrasonically sealed seams

Tie-tapes at rear

Neck fastening

BioClean-C™ S-BCDA and BCDA — Clean and Sterile/Non-Sterile

Material	BioClean-C™ CleanTough blue material
Sterility	Sterile or Non-Sterile
Construction	Adjustable neck, tie fastening at waist
Size	S, M, L
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	One piece per sealed inner PE bag; one inner bag per sealed outer PE bag; 50 outer bags per lined carton (50 pieces)

Chemotherapy Protective Apron

CATEGORY III

PERFORMANCE RATINGS

EN 13034:2005 + A1:2009
TYPE PB[6]

PROTECTION CATEGORIES

DESCRIPTION

- The BioClean-C™ Chemotherapy Protective Apron is manufactured from lightweight lowlinting CleanTough material, and features tie tapes at the rear and an adjustable neck fastening for easy donning and comfort
- Providing protection against a range of chemotherapy drugs and tested against ASTM F739-12 standard

KEY FEATURES

- Tested against permeation standard ASTM F739-12
- Tested against ISO 16604:2004 for penetration by blood-borne pathogens
- Tie tapes at rear
- Adjustable neck fastening
- Lightweight low-linting CleanTough material
- Silicone-free

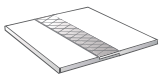
BioClean-C™ S-BCSC and BCSC — Clean and Sterile/Non-Sterile

Material	BioClean-C™ CleanTough blue material
Sterility	Sterile or Non-Sterile
Construction	Ultrasonically sealed seams covered with protective tape
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	**S-BCSC**: One pair per sealed inner PE bag; 15 inner bags per sealed outer PE bag; six outer bags per lined carton (90 pairs) **BCSC**: 30 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; six outer bags per lined carton (180 pieces)

Chemotherapy Protective Sleeve Cover

CATEGORY III

ULTRASONICALLY SEALED SEAMS



PERFORMANCE RATINGS

EN 13034:2005 + A1:2009
TYPE PB[6]

PROTECTION CATEGORIES

DESCRIPTION

- The BioClean-C™ Chemotherapy Protective Sleeve Covers have been specially developed for protection against a range of chemotherapy drugs and tested against ASTM F739-12 standard
- Constructed from lightweight low-linting CleanTough blue material, the sleeve covers feature elasticated openings for stability on the arm and has been tailored for quick and simple donning

KEY FEATURES

- Ultrasonically sealed seams with protective tape
- Elasticated for secure fit
- Lightweight low-linting CleanTough material
- Tested against permeation standard ASTM F739-12
- Tested against ISO 16604:2004 for penetration by blood-borne pathogens
- Silicone-free

AlphaTec® 1600 PLUS — Model 111

LIGHTWEIGHT, BREATHABLE AND OIL REPELLENT SINGLE USE SMS COVERALL. EXCEPTIONAL OIL REPELLENCY AND COMFORT.

DESCRIPTION

- **Protection** – Superior repellency for enhanced protection against liquids, particularly oils and alcohols compared to traditional 'SMS' technology
- **Comfort** – Lightweight, breathable materials to help minimise the risk of heat stress
- **Silicone-free** – For use in critical environments
- **Low-linting** – To reduce the risk of contamination in critical areas
- **Anti-static** – Tested according to EN 1149-5
- **Optimised body fit** – With knitted cuffs for increased wearer comfort
- 3-piece hood
- Elasticated hood, wrists, waist and ankles (latex free)
- 2-way front zipper with resealable storm flap

IDEAL APPLICATIONS

- Solvent degreasing and parts cleaning
- Loading and handling of low hazard liquids and process equipment
- Blending, filtering and compounding raw materials
- Inspecting machinery and equipment for defects
- Preparing and mixing paints
- Energy utilities

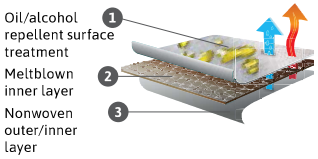
PERFORMANCE RATINGS

COLOURS

SIZES

S-5XL

MATERIALS



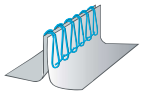
FEATURES

Elasticated hood, wrists, waist and ankles

Lint-free knitted cuffs

Oil/alcohol repellent

STITCHED SEAMS



TECHNOLOGIES

RIPEL™
Liquid Repellence Technology

AlphaTec® 1800 COMFORT — Model 195

AlphaTec® 1800 COMFORT, MODEL 195, WAS DEVELOPED FOR WORKERS NEEDING THE PERFECT BALANCE OF COMFORT AND PROTECTION.

DESCRIPTION

- **Protection** – Proven barrier to low-concentration liquid chemicals and airborne particulates
- **Comfort** – Air and moisture vapour permeable (breathable) SMS hood, full back and underarms to help reduce the risk of heat stress
- **Silicone-free** – Critical in spray painting applications
- **Low-linting** – Reduced risk of contamination in critical areas
- **Anti-static** – Tested and certified in accordance with EN 1149-5
- 3-piece hood
- Elasticated hood, wrists, waist and ankles (latex free)
- 2-way front zipper with resealable storm flap
- Finger loops

IDEAL APPLICATIONS

- Composites
- General maintenance
- Paint spraying
- Surface preparation
- Boat and ship building
- Wind turbine manufacturing

PERFORMANCE RATINGS

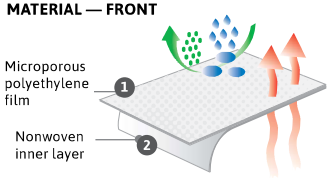
BOUND SEAMS

COLOURS

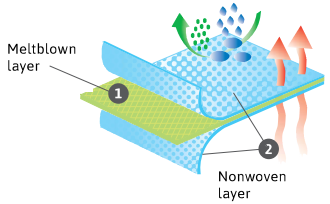
SIZES

S-5XL

MATERIAL — FRONT



MATERIAL — BACK



FEATURES

Breathable back

AlphaTec® 2000 Ts PLUS

Model 103, 111, 122 & 156

AlphaTec® 2000 TS PLUS IS THE PRODUCT OF CHOICE FOR MANY PHARMACEUTICAL WORKERS AROUND THE WORLD.

DESCRIPTION

- **Protection** – Proven barrier to low concentration liquid chemicals, diluted pesticides, liquid and particulate biological hazards
- **Comfort** – Moisture vapour permeable ("breathable") to help reduce the risk of heat stress
- **Silicone-free** – Critical in spray-painting applications
- **Ultra-low-linting** – Reduced risk of contamination in critical areas
- **Anti-static** – Tested according to EN 1149-5
- **Optimised body fit** – Improves wearer comfort and safety
- **Tunnelled elasticated wrists, hood and ankles** – Helps to minimise the risk of linting and cross contamination
- **Thumb loops** – Help to prevent sleeve movement when working above your head
- **Chinstrap** – Helps to reduce the risk of cross- contamination
- Elasticated hood, wrists, waist and ankles (latex free)
- 2-way front zipper with resealable storm flap

IDEAL APPLICATIONS

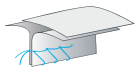
- Agriculture
- Paint spraying
- Pharmaceutical industries
- Fibre-glass product manufacturing
- Boat and shipbuilding
- Mining

PERFORMANCE RATINGS

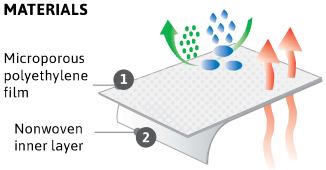
TYPE 4-B | TYPE 5-B | TYPE 6-B | EN 14126 | EN 1073-2 | DIN 32781 | EN 1149-5

EN ISO 27065 Standard in progress - please email Ansell for more information.

STITCHED & TAPED SEAMS

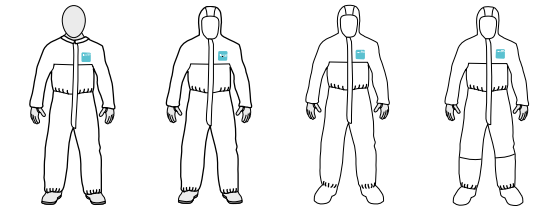


MATERIALS



COLOURS ☐ 111 **SIZES** S-5XL

MODELS



Model 103	Model 111	Model 122	Model 156
▪ Collar	▪ 3-piece hood	▪ Attached boot with ankle ties and anti-slip soles	▪ Attached socks with boot overflaps

Model 209, 213, 214, 219, 400, 401, 406, 407, 417, 503, 507 & 600

Model 209 — Lab Coat

- Front zip fastening
- Left breast pocket
- Lower right pocket
- Bound seams
- Category III

SIZES: S-3XL **COLOURS** ☐

Model 213 — Apron

- Tie fastening to waist
- 100 cm long tie fastening
- Category III

SIZES: One size **COLOURS** ☐

Model 214 — Apron with Sleeves

- Rear hook and loop fastening
- Elasticated wrists
- Bound seams
- Category III

SIZES: S-3XL **COLOURS** ☐

Model 219 — Jacket & Trouser Set

- Zip fastening jacket
- Elasticated waist, hem and ankles on jacket and trousers
- Bound seams
- Category III

SIZES: S-5XL **COLOURS** ☐

Model 400 — Overshoes

- Elasticated opening
- Bound seams
- Category I

SIZES: One size (fits size 42-46) **COLOURS** ☐

Model 401 — Overshoes

- Elasticated opening
- Bound seams
- Category I

SIZES: One size (fits size 46-48) **COLOURS** ☐

Model 406 — Overboots

- Tie fastening
- Elastic to top of boot
- Bound seams
- Category I

SIZES: One size (fits size 42-46) **COLOURS** ☐

Model 407 — Overboots - ESD

- Tie fastening
- Elastic to top of boot
- Bound seams
- Electric static Discharge (ESD) PVC Sole
- Category I

SIZES: One size (fits size 42-46)

Model 417 — Overshoes

- Bound Seams
- Elasticated opening
- ESD PVC sole
- Category I

SIZES: One size **COLOURS** ☐

Model 503 — Cape Hood

- Balaclava-style
- Elasticated face opening
- Bound seams
- Category I

SIZES: One size **COLOURS** ☐

Model 507 — Cape Hood

- Balaclava-style cape hood covering part of shoulders
- Front hook and loop fastening
- Bound seams
- Category I

SIZES: One size **COLOURS** ☐

Model 600 — Oversleeves

- Elasticated at both ends
- Bound seams
- Length 20"
- Category I

SIZES: One size **COLOURS** ☐

AlphaTec® 2500 STANDARD | Model 111 & 122

AlphaTec® 2500 IS A UNIQUE MATERIAL OFFERING EXCEPTIONAL MECHANICAL STRENGTH, LIQUID AND PARTICULATE PROTECTION.

DESCRIPTION

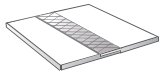
- **Protection** – Achieves the highest classifications for protection from biological agents in accordance with EN 14126:2003 and ASTM F 1671 for penetration of blood, body fluids and blood-borne pathogens
- **Comfort** – Moisture vapour permeable ("breathable") to help reduce the risk of heat stress
- **Anti-static** – Tested according to EN 1149-5
- **Ultra-low-linting** – Reduced risk of contamination in critical areas
- Elasticated hood, wrist, waist and ankles (latex free)
- Finger loops
- Red single zip with resealable storm flap

IDEAL APPLICATIONS

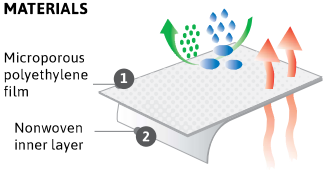
- Virally contaminated areas (including avian influenza)
- Biological protection
- Emergency medical response
- Medical research
- Chemical and pharmaceutical industries
- Low-pressure industrial cleaning
- Industrial paint spraying
- Nuclear industry

PERFORMANCE RATINGS

ULTRASONICALLY WELDED SEAMS



MATERIALS

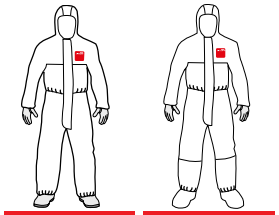


COLOURS

SIZES

S-5XL

MODELS



Model 111

- 3-piece hood

Model 122

- Attached boot with ankle ties and anti-slip soles

FEATURES

Attached boot with ankle ties and anti-slip soles (Model 122)

AlphaTec® 3000 | Model 111

AlphaTec® 3000 IS ONE OF THE LIGHTEST AND MOST COMFORTABLE CHEMICAL PROTECTIVE MATERIALS ON THE MARKET TODAY. THIS DURABLE MULTI-LAYER FABRIC PROVIDES AN EXTREMELY EFFECTIVE BARRIER AGAINST BOTH INORGANIC CHEMICALS AND BIOLOGICAL HAZARDS.

DESCRIPTION

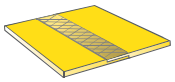
- **Protection** – Multi-layer barrier fabric effective against numerous chemicals
- **Highly visible** – Bright yellow colour for improved worker safety
- **Comfort** – Lightweight yet durable
- **Anti-static** – Tested according to EN 1149-5
- **Designed to protect** – Typical coverall features include dual zip systems and double cuffs
- Latex free

IDEAL APPLICATIONS

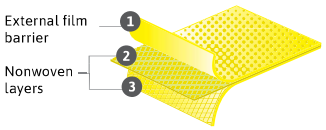
- General acids and inorganic chemicals
- Oil and petrochemicals
- Pharmaceutical
- Food industry (caustic clean-downs)
- Sewage purification installations
- Industrial and tank cleaning
- Mining

PERFORMANCE RATINGS

ULTRASONICALLY WELDED SEAMS



MATERIALS



COLOURS

SIZES

S-5XL

FEATURES

Double zip system

Double cuff design

TECHNOLOGIES

MICROCHEM Chemical Barrier Technology

AlphaTec® 4000 | Model 111

AlphaTec® 4000 IS DESIGNED TO PROVIDE AN EXCEPTIONAL BARRIER AGAINST MANY CONCENTRATED ORGANIC AND INORGANIC CHEMICALS AS WELL AS BIOLOGICAL AGENTS.

DESCRIPTION

- **Protection** – Permeation tested against over 190 chemicals, including chemical warfare agents
- **Comfort** – Textile-like inner improves wearer acceptance
- **Anti-static** – Tested according to EN 1149-5
- **Designed to protect** – Typical coverall features include dual zip systems and double cuffs
- Latex and silicone free

IDEAL APPLICATIONS

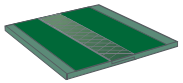
- Chemical handling/transportation
- Oil-based mud protection
- Hazardous waste remediation
- Sewage purification installations
- Industrial/tank cleaning
- Hazmat emergency response (i.e. Level B)
- Pharmaceutical
- Mining
- Agriculture

PERFORMANCE RATINGS

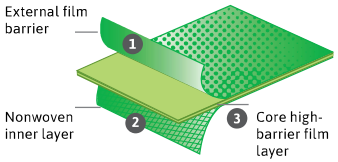
COLOURS

SIZES S-5XL

ULTRASONICALLY WELDED & TAPED SEAMS



MATERIALS



FEATURES

2-piece hood

Double zip system

TECHNOLOGIES

MICROCHEM™ Chemical Barrier Technology

BODY PROTECTION

ACCESSORIES

BioClean-D™ S-BDSC-L and BDSC-L — Sterile or Non-Sterile

Material	Anti-static BioClean-D™ CleanTough white material
Construction	Bound seams with single needle stitching
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	**S-BDSC-L:** One pair per sealed inner PE bag; 15 inner bags per sealed outer PE bag; six outer bags per lined carton (90 pairs) **BDSC-L:** 30 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; six outer bags per lined carton (180 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN 13034:2005 + A1:2009 TYPE PB[6]

EN 1149-5: 2008

BOUND SEAM

PROTECTION CATEGORIES

Disposable Sleeve Covers

DESCRIPTION

- Offering comfort, protection and quick and simple donning, the single use BioClean-D™ Disposable Sleeve Covers are constructed from anti-static lightweight low-linting CleanTough material
- Featuring elasticated openings for a firm fit

KEY FEATURES

- Extra long length 500mm
- Excellent ESD Properties
- Lightweight & low-linting
- Silicone-free

BioClean-D™ S-BDHD-L and BDHD-L — Sterile or Non-Sterile

Material	Anti-static BioClean-D™ CleanTough white material
Construction	Bound seams with single needle stitching
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	**S-BDHD-L:** One piece per sealed inner PE bag; 20 inner bags per sealed outer PE bag; six outer bags per lined carton (120 pieces) **BDHD-L:** 20 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; six outer bags per lined carton (120 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN 13034:2005 + A1:2009 TYPE PB[6]

EN 1149-5: 2008

BOUND SEAM

PROTECTION CATEGORIES

Disposable Hood-Longer Length

DESCRIPTION

- The BioClean-D™ Hood has a three-piece design to ensure a perfect fit
- Made from anti-static lightweight CleanTough material for comfort, the hood features an extra-long yoke for maximum coverage when worn in conjunction with a coverall with collar, and features an elasticated face-opening with reinforced edges to avoid contamination entering the controlled environment

KEY FEATURES

- Extra-long yoke for maximum coverage
- Lightweight low-linting CleanTough material
- Excellent ESD properties
- PPE Cat 3 Type PB [6]
- Silicone-free

BioClean-D™ S-BDOB and BDOB — Sterile or Non-Sterile

Material	Anti-static BioClean-D™ CleanTough white material & polyurethane sole
Construction	Bound seams with single needle stitching
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	**S-BDOB:** One pair per sealed inner PE bag; 15 inner bags per sealed outer PE bag; five outer bags per lined carton (75 pairs) **BDOB:** 30 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; five outer bags per lined carton (150 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN 13034:2005 + A1:2009 TYPE PB[6]

EN 1149-5: 2008

BOUND SEAM

PROTECTION CATEGORIES

Disposable Overboots

DESCRIPTION

- The BioClean-D™ Disposable Overboots are constructed from anti-static low-linting CleanTough material
- Feature a slip-resistant sole and tie fastenings for quick and easy donning

KEY FEATURES

- Lightweight & low-linting CleanTough material
- Elasticated opening for a firm fit
- Easy tie fastenings for a secure hold on leg
- Slip-resistant sole
- Silicone-free

BioClean-D™ S-BDOB-L and BDOB-L — Sterile or Non-Sterile

Material	Anti-static BioClean-D™ CleanTough white material & polyurethane sole
Construction	Bound seams with single needle stitching
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Protection	• Chemical & Liquid • Liquid Splash • Particulate
Packaging	**S-BDOB-L:** One pair per sealed inner PE bag; 15 inner bags per sealed outer PE bag; five outer bags per lined carton (75 pairs) **BDOB-L:** 30 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; five outer bags per lined carton (150 pieces)

CATEGORY III

PERFORMANCE RATINGS

EN 13034:2005 + A1:2009 TYPE PB[6]

EN 1149-5: 2008

BOUND SEAM

PROTECTION CATEGORIES

Disposable Overboots - Longer Length

DESCRIPTION

- Offering exceptional comfort and protection, the BioClean-D™ longer (height 500mm) Overboots are constructed from anti-static low-linting CleanTough material
- Feature a slip-resistant sole and easy tie fastenings at the top and ankle

KEY FEATURES

- Longer length-500mm
- Low-linting
- Tie-fastenings at top & ankle
- Slip-resistant sole
- Silicone-free

BioClean™ S-BDOS — Sterile

Material	**Top:** Spunbonded non-woven polypropylene fabric **Sole:** Embossed cast polyethylene film **Elastic:** Latex-free
Size (in)	16
Compatibility	ISO Class 4
Protection	Particulate
Packaging	One pair per sealed inner PE bag; 15 inner bags per sealed outer PE bag; 10 outer bags per lined carton (150 pairs)

Disposable Sterile Overshoes

DESCRIPTION

- BioClean™ Dual Disposable Sterile Overshoes are practical and durable, featuring a heavy-duty textured cast polyethylene slip-resistant sole for a secure footing

KEY FEATURES

- Non-woven spunbonded polypropylene
- Heavy duty slip-resistant sole
- Practical & durable
- Latex-free elastic

BioClean™ CPE and S-CPE — Sterile or Non-Sterile

Material	Cast polyethylene
Size (in)	16
Tearing strength	1.6kg (min)
Protection	Particulate
Packaging	**S-CPE-16-Sterile 16";** One pair per sealed inner PE bag; 10 inner bags per sealed outer PE bag; 15 outer bags per lined carton (150 pairs) *Please note: minimum order quantity (MOQ) 18 cartons **CPE165B-Non-sterile;** 100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (2000 pieces)

Disposable Overshoes

DESCRIPTION

- BioClean™ CPE Disposable Overshoes are the economical choice combining very low levels of particle shedding and exceptional strength. Their heavy-duty construction means they are durable and resistant to tears and abrasions

KEY FEATURES

- Low-linting
- Durable
- Tear and abrasion resistant

BioClean™ BDBO — Non-Sterile

Material	Non-woven spunbonded polypropylene (38gsm)/ Cast polyethylene laminate (64gsm)
Size (in)	14, 16, 18
Tearing strength	5.0kg (min)
Protection	Particulate
Packaging	50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; eight outer bags per lined carton (400 pieces)

Disposable Overshoes

DESCRIPTION

- BioClean™ Durableu Disposable Overshoes offer superb durability. Resistant to tears, abrasions and a wide range of liquid chemicals, these cleanroom overshoes are low-linting, slip-resistant and have high tensile strength

KEY FEATURES

- Low-linting
- Slip-resistant
- Chemical resistant
- Tear and abrasion resistant

BioClean™ NSO — Non-Sterile

Material	Elastomer coating over non-woven spunbonded polypropylene
Size (in)	16 or 18
Compatibility	ISO Class 5
Protection	Particulate
Packaging	100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; four outer bags per lined carton (400 pieces)

Disposable Overshoes

DESCRIPTION

- BioClean™ SafeStep Overshoes have low levels of particle shedding and are processed to ensure ISO Class 5 compatibility. They feature an elastomer coating to ensure good grip and durability

KEY FEATURES

- Slip-resistant
- Low levels of particle shedding
- Durable
- Elastomer coating

BioClean™ ESD — Non-Sterile

Material	**Shoe:** Non-woven spun-bonded polypropylene **Tape:** Polyester filament yarn (96%) with conductive nylon carbon filament yarn (4%) **Conductivity:** Consistently below 35 Megohms
Size (in)	16(White), 18(White), 18(Blue)
Tearing strength	0.9kg (min)
Protection	Particulate
Packaging	100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Please Note: When donning the ESD overshoes ensure that the loose black tape is located at the back/heel of the foot and is tucked securely inside the users sock making sure the tape is in direct contact with the skin.

Disposable Overshoes

DESCRIPTION

- BioClean™ ESD Cleanroom Overshoes have non-marking conductive tape providing dissipative properties when worn as instructed

KEY FEATURES

- Non-marking conductive tape
- ESD properties

BioClean™ BESD — Non-Sterile

Material	**Shoe:** Spun bonded polypropylene with proprietary elastomer coating **Tape:** Polyester filament yarn (96%) with conductive nylon carbon filament yarn (4%) **Conductivity:** Consistently below 35 Megohms
Size (in)	16
Tearing strength	1.6kg (min)
Protection	Particulate
Packaging	100 pieces per sealed inner PE bag; one inner bag per outer PE bag; four outer bags per lined carton (400 pieces)

Please Note: When donning the ESD overshoes ensure that the loose black tape is located at the back/heel of the foot and is tucked securely inside the users sock making sure the tape is in direct contact with the skin.

Safestep ESD Cleanroom Overshoes

DESCRIPTION

- BioClean™ SafeStep ESD Cleanroom Overshoes with conductive tape offer excellent ESD performance. The elastomer coated overshoe ensures high durability and slip-resistance and the non-marking conductive tape provides excellent dissipative properties

KEY FEATURES

- Non-marking conductive tape provides excellent dissipative properties
- Slip-resistant
- Elastomer coated for durability
- Low levels of particle shedding

BioClean™ BDBL-16 — Non-Sterile

Material	Non-woven, spunbonded Polypropylene (38gsm)/ Cast Polyethylene (64gsm) laminate
Size (in)	16
Tearing strength	5.0kg (min)
Protection	Particulate
Packaging	50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; eight outer bags per lined carton (400 pieces)

Disposable Overboots

DESCRIPTION

- BioClean™ Durableu Disposable Overboots offer protection and durability. Resistant to tears and abrasions and a wide range of liquid chemicals. These cleanroom overboots are low-linting, slip-resistant and have high tensile strength

KEY FEATURES

- Resists tears, rips and abrasions
- Low levels of particle shedding
- Resistant to a wide range of liquid chemicals
- High tensile strength
- Slip-resistant

GOGGLES & FACEMASKS

STERILE & NON-STERILE

BioClean™ Clearview BCGS1 — Sterile

Material	Lightweight ultra-soft PVC frame, toughened polycarbonate lens, latex-free silicone head band
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One piece per sealed DuPont™ Tyvek® material/PE inner bag; 10 inner bags per sealed outer Tyvek®/PE bag; six outer bags per lined carton (60 pieces)

Single-Use Goggles

CATEGORY II

PERFORMANCE RATINGS

- ANSI/ISEA Z87.1-2010
- EN166:2001

DESCRIPTION

- BioClean™ Clearview Sterile Single Use Goggles are constructed from lightweight ultra-soft PVC, and feature an indirect ventilation system to maintain user comfort and reduce the risk of contamination entering the controlled environment
- With PPE Cat 2 certification they provide personal protection and can be worn over eye-glasses with ease and feature a toughened polycarbonate lens with anti-fog and anti-scratch coating for clear vision

KEY FEATURES

- Lightweight PVC frame
- Indirect ventilation system
- Optically correct
- Toughened polycarbonate, anti-fog & anti-scratch optically correct lens
- Non-linting latex-free head band
- EtO sterilized

BCGS1 GOGGLES TIGHTENING PROCEDURE

1 ACCLIMATIZATION

The lenses of BioClean™ Clearview sterile, single use goggles (BCGS1) are coated with an anti-fog treatment to prevent fogging up in use.

However, moving the goggles from a cold environment (for example a warehouse or store room) into an environmentally controlled cleanroom can cause fogging due to the rapid change in humidity and temperature. If this phenomenon is experienced we recommend that BioClean™ goggles are moved into the cleanroom changing area for a period of time before they are needed. The goggles will then acclimatize to the new conditions and be less liable to fog.

2 FITTING A FACEMASK WITH GOGGLES

When wearing goggles with a facemask, fogging may occur as the result of warm, moist breath being pushed up under the bottom rim of the goggles.

The wearer must ensure that the noseband of the facemask is properly formed over the bridge of the nose so that a good fit between mask and face is achieved. The goggles should then be donned and adjusted by pulling the strap ends so there is a good fit around the face, and firm pressure is applied to the top of the facemask, assisting the seal between the mask and face.

3 AIRFLOW

In some circumstances it may be found that fogging persists.

This may happen if a facemask is being worn and an adequate seal cannot be achieved or physical exertion causes the wearer to perspire. The perspiration will evaporate inside the goggles and condense on the lens. In this event an increased airflow through the goggles can help. BCGS1 goggles are fitted with valves at the top and bottom, on either side of the frame which can be adjusted to increase airflow.

BioClean™ BVGS — Sterile

Material	Lightweight ultra-soft PVC frame, toughened polycarbonate lens, latex-free silicone head band
Size	Universal
Compatibility	ISO Class 4 and EU GMP Grade A
Packaging	One piece per sealed PE inner bag; 10 inner bags per sealed outer PE bag; six outer bags per lined carton (60 pieces)

Please note: Style subject to a minimum order quantity (MOQ)

Single-Use Goggles

CATEGORY II

PERFORMANCE RATINGS

- ANSI/ISEA Z87.1-2010
- EN166:2001

DESCRIPTION

- BioClean™ Clearview gamma irradiated Single Use Goggles are constructed from lightweight ultra-soft PVC, and have an indirect ventilation system to maintain user comfort and reduce the risk of contamination entering the controlled environment
- With PPE Cat 2 certification they provide personal protection and can be worn over eye-glasses with ease and feature an optically correct toughened polycarbonate lens with anti-fog and anti-scratch coating for clear vision

KEY FEATURES

- Lightweight PVC frame
- Indirect ventilation system
- Optically correct
- Toughened polycarbonate, anti-fog & anti-scratch optically correct lens
- Non-linting latex-free head band
- Gamma sterilized

BioClean™ Clearview BCAH — Non-Sterile

Material	Silicone rubber frame, polycarbonate lens, latex-free silicone head band with polypropylene hooks
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One piece per sealed PE bag (to be removed prior to autoclaving); 12 bags per inner box; five boxes per lined carton (60 pieces)

Autoclavable Goggles

DESCRIPTION

- Constructed from super-soft, lightweight silicone rubber to provide user comfort and enable prolonged use, BioClean™ Clearview Autoclavable Cleanroom Goggles feature an indirect ventilation system to reduce the risk of contamination entering the controlled environment, and have an anti-fog polycarbonate lens

KEY FEATURES

- Anti-fog lens
- Super-soft frame
- Indirect ventilation system
- Non-linting latex-free head band
- Tested to withstand 50 autoclave cycles of 30 minutes duration at 121°C/250°F (under laboratory conditions)
- Anti-fog performance remaining for up to 25 cycles with no signs of degradation (under laboratory conditions)

BioClean™ Clearview BCAG — Non-Sterile

Material	Thermoplastic rubber frame, toughened polycarbonate lens, latex-free silicone head band with polypropylene hooks
Size	Universal
Compatibility	ISO Class 4 and EU GMP Grade A
Packaging	One piece per sealed PE bag (to be removed prior to autoclaving); 12 bags per inner box; five inner boxes per lined carton (60 pieces)

Autoclavable Goggles

CATEGORY II

PERFORMANCE RATINGS

- EN166:2001

DESCRIPTION

- BioClean™ Clearview Autoclavable Cleanroom Goggles have a super-soft thermoplastic rubber frame to provide wearer comfort and feature upper vents and an indirect lower ventilation system to reduce the risk of contamination entering the controlled environment
- These goggles feature a toughened anti-scratch, anti-fog polycarbonate lens for clear vision

KEY FEATURES

- Toughened, anti-scratch, anti-fog lens
- Super-soft frame
- Upper vents and lower indirect ventilation system
- Non-linting latex-free head band
- Can be worn over eye-glasses
- Tested to withstand 40 autoclave cycles of 30 minutes duration at 121°C/250°F (under laboratory conditions)
- Anti-fog performance remaining for up to 25 cycles with no degradation (under laboratory conditions)

BioClean™ Clearview BCAP — Non-Sterile

Material	Thermoplastic rubber frame, toughened polycarbonate lens, latex-free silicone head band with polypropylene hooks
Size	Universal
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	One piece per sealed PE bag (to be removed prior to autoclaving); 12 bags per inner box; five boxes per lined carton (60 pieces)

Autoclavable Panoramic Goggles

CATEGORY II

PERFORMANCE RATINGS

- EN166:2001

DESCRIPTION

- BioClean™ Clearview Autoclavable Panoramic Goggles have a toughened, anti-scratch, anti-fog lens providing excellent optical clarity even after multiple autoclave cycles
- The goggles feature a super-soft frame for comfort and an indirect ventilation system to reduce the risk of contamination entering the controlled environment
- The extra wide and deep lens offers the wearer increased field of vision and are ideal for wearing over large eye-glasses

KEY FEATURES

- Toughened anti-scratch, anti-fog lens
- Super-soft frame
- Indirect ventilation system
- Ideal for wearing over eye-glasses
- Non-linting latex-free head band
- Tested to withstand 40 autoclave cycles of 30 minutes duration at 121°C/250°F (under laboratory conditions)
- Anti-fog performance remaining for up to 25 cycles with no degradation (under laboratory conditions)

Ansell

a CLEAR VIEW time after time

Ensuring a clear view whilst carrying out intricate tasks within a controlled environment is crucial. **BioClean™ autoclavable goggles feature anti-fog technology which maintains a clear lens even after multiple autoclave cycles.**

Tested to withstand 40 autoclave cycles* the BioClean™ autoclavable range of goggles offer an economical solution to eye protection, with the added benefits of an indirect ventilation system, comfortable super-soft frame, panoramic version for increased field of vision and conforming to Personal Protective Equipment PPE Regulation (EU) 2016/425 and complying with EN 166:2001** and ANSI/ISEA Z87.1-2015^ for personal eye protection.

See the **Anti-fog Technology in Action**

BioClean™ BCAG

BioClean™ BCAH

BioClean™ BCAP

Find out more by visiting **www.ansell.com/life-sciences/goggles**

BioClean pure · product · protection

*Anti-fog performance remaining for up to 25 cycles with no degradation (under laboratory conditions)
**Not applicable for BCAH goggle
^BCAP-1 goggle style only

BioClean™ BDBS-G and BDBN-G — Sterile or Non-Sterile

Material	**INNER FACING LAYER:** Non-woven spunbonded polyester (hygroscopic) **FILTER LAYER:** Meltblown polyester (Sterile), Meltblown polypropylene (non-sterile) **OUTER FACING LAYER:** Non-woven spunbonded polyester (hydrophobic) **FASTENINGS:** Tubular knitted polyurethane Spandex yarn headloops **NECK GUARD:** Non-woven spunbonded polyester **NOSE-BAND:** Plastic coated steel
Compatibility	ISO Class 4
Packaging	**BDBS-G**-Sterile; One piece per sealed inner PE bag; 20 inner bags per sealed outer PE bag; 10 outer bags per lined carton (200 pieces) **BDBN-G**-Non-sterile; 50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; six outer bags per lined carton (300 pieces)

Pouch-style Facemask with Neck Guard

DESCRIPTION

- The BioClean™ DB Pouch-style Facemask features a large breathing chamber for increased wearer comfort
- Made from cleanroom compatible materials the BioClean™ DB facemask features an integrated neck guard to provide additional coverage reducing the risk of cross-contamination

KEY FEATURES

- High bacterial & particle filtration efficiency
- Extra long neck guard
- Large breathing chamber
- Ultrasonically sealed edges
- Fully enclosed malleable nose-band

BioClean™ BDBS and BDBN — Sterile or Non-Sterile

Material	**INNER FACING LAYER:** Non-woven spunbonded polyester (hygroscopic) **FILTER LAYER:** Meltblown polyester (sterile), Meltblown polypropylene (non-sterile) **OUTER FACING LAYER:** Non-woven spunbonded polyester (hydrophobic) **FASTENINGS:** Tubular knitted polyurethane Spandex yarn headloops **NOSE-BAND:** Plastic coated steel
Compatibility	ISO Class 4
Packaging	**BDBS**-Sterile; One piece per sealed inner PE bag; 20 inner bags per sealed outer PE bag; 10 outer bags per lined carton (200 pieces) **BDBN**-Non-sterile; 50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; six outer bags per lined carton (300 pieces)

Pouch-style Facemask

DESCRIPTION

- The BioClean™ DB Pouch-style Facemask features a large breathing chamber for increased wearer comfort and a malleable nose-band for a good fit
- Made from cleanroom compatible materials and ultrasonically sealed edges to reduce the risk of contamination entering the controlled environment

KEY FEATURES

- High bacterial & particle filtration efficiency
- Large breathing chamber
- Ultrasonically sealed edges
- Fully enclosed malleable nose-band

BioClean™ MTA — Sterile or Non-Sterile

Material	**INNER FACING LAYER:** Non-woven polypropylene/polyethylene (hygroscopic) **FILTER LAYER:** Meltblown polyester (sterile), Meltblown polypropylene (non-sterile) **OUTER FACING LAYER:** Non-woven spunbonded polyester (hydrophobic) (sterile), Non-woven polypropylene/polyethylene (hydrophobic) (non-sterile) **FASTENINGS:** Non-woven polypropylene ties **NOSE-BAND:** Plastic coated steel
Compatibility	ISO Class 4
Packaging	**MTA210-1**-Sterile; One piece per sealed inner PE bag; 50 inner bags per sealed outer PE bag; 10 outer bags per lined carton (500 pieces) **MTA 210-0**-Non-sterile (bulk packed); 50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 16 outer bags per lined carton (800 pieces) **MTA 210-2**-Non-sterile; One piece per sealed inner PE bag; 50 inner bags per sealed outer PE bag; 10 outer bags per lined carton (500 pieces)

Tie-on Facemask

DESCRIPTION

- Providing high particle and bacterial filtration efficiency, the BioClean™ MTA Cleanroom Tie-on Facemask is manufactured from cleanroom compatible materials to reduce contamination into the controlled environment and features tie-tapes for a secure fastening

KEY FEATURES

- High bacterial, viral & particle efficiency filtration
- Fully enclosed malleable nose-band
- Ultrasonically sealed edges
- Tested against standard ASTM F2101 for Bacterial Filtration Efficiency (BFE)
- Latex-free

BioClean™ MEA — Sterile or Non-Sterile

Material	**INNER FACING LAYER:** Non-woven polypropylene/polyethylene (hygroscopic) **FILTER LAYER:** Meltblown polyester (sterile), Meltblown polypropylene (non-sterile) **OUTER FACING LAYER:** Non-woven spunbonded polyester (hydrophobic) (sterile), Non-woven polypropylene/polyethylene (hydrophobic) (non-sterile) **FASTENINGS:** Non-latex polyurethane loops with blue plastic clip fastener **NOSE-BAND:** Plastic coated steel
Compatibility	ISO Class 4
Packaging	**MEA210-1**-Sterile; One piece (with blue clip) per sealed inner PE bag; 50 inner bags per sealed outer PE bag; 12 outer bags per lined carton (600 pieces) **MEA210-0**-Non-sterile (bulk packed); 100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (2000 pieces) **MEA210-2**-Non-sterile; One piece per sealed inner PE bag; 50 inner bags per sealed outer PE bag; 12 outer bags per lined carton (600 pieces) Packing option subject to minimum order quantity and lead time

Looped Facemask

DESCRIPTION

- Providing high particle and bacterial filtration efficiency, the BioClean™ MEA Cleanroom Looped Facemask is manufactured from cleanroom compatible materials to reduce contamination into the controlled environment
- Features loops and clip connector to allow for quick and secure fastening at back of head

KEY FEATURES

- High bacterial, viral & particle efficiency filtration
- Fully enclosed malleable nose-band
- Ultrasonically sealed edges
- Looped with connector for secure fastening
- Tested against standard ASTM F2101 for Bacterial Filtration Efficiency (BFE)

BioClean™ VFM — Sterile

Material	**INNER FACING LAYER:** Non-woven polypropylene/polyethylene (hydrophilic) **FILTER LAYER:** Meltblown polyester **OUTER FACING LAYER:** Non-woven spunbonded polyester (hydrophobic) **FASTENINGS:** Ties: Non-woven Polypropylene Loops: Polyurethane (with blue plastic clip fastener) **NOSE-BAND:** Plastic coated steel
Compatibility	ISO Class 4 & EU GMP Grade A compatible
Packaging	**VFM210-L** (Looped with blue clip fastener); One piece per sealed inner PE bag; 25 inner bags per sealed outer PE bag; four outer bags per lined carton (100 pieces) **VFM210-T-SLOT** (Tie-on); One piece per sealed inner PE bag; 25 inner bags per sealed outer PE bag; four outer bags per lined carton (100 pieces)

Visor Facemask

DESCRIPTION

- Providing good particle and bacterial filtration efficiency, the latex-free BioClean™ VFM Sterile Visor Facemask combines comfort and breathability
- The optically clear, distortion-free anti-fog visor provides additional protection reducing the risk of contamination entering the controlled environment

KEY FEATURES

- Anti-fog coating
- Distortion free visor
- Latex-free
- High bacterial & particle filtration efficiency
- Looped or tie-on versions

BioClean™ BFV03 — Non-Sterile

Material	**VEIL:** Hydroentangled polyester **FASTENINGS:** Tubular polyester headloops **NOSE-BAND:** Plastic coated aluminium **BINDING:** White hydroentangled polyester
Compatibility	ISO Class 7, 8 & 9
Packaging	100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 20 outer bags per lined carton (2000 pieces)

Face Veil with Headloops

DESCRIPTION

- Made from soft non-woven material, the BioClean™ Softflow Cleanroom Face Veil offers comfort for the wearer and features ultrasonically sealed seams and a fully enclosed malleable nose-band

KEY FEATURES

- Ultrasonically sealed seams
- Fully enclosed malleable nose-band
- Low linting

BioClean™ BFV05 — Non-Sterile

Material	**VEIL:** Apertured polyethylene film **FASTENINGS:** Tubular polyester headloops **NOSE-BAND:** Plastic coated aluminium **BINDING:** White hydroentangled polyester
Compatibility	ISO Class 7, 8 & 9
Packaging	100 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Face Veil with Headloops

DESCRIPTION

- BioClean™ Microflow Cleanroom Face Veil is low-linting with ultrasonically sealed edges reducing the risk of contamination into the controlled environment, and features a fully enclosed malleable nose-band and head-loops for a good fit

KEY FEATURES

- Ultrasonically sealed seams
- Fully enclosed malleable nose-band
- Low-linting

BioClean™ BFV06 — Non-Sterile

Material	**VEIL:** Apertured polyethylene film **FASTENINGS:** Two male studs either side of veil **NOSE-BAND:** Plastic coated aluminium **BINDING:** White hydroentangled polyester
Compatibility	ISO Class 7, 8 & 9
Packaging	50 pieces per sealed inner PE bag; one inner bag per sealed outer PE bag; 10 outer bags per lined carton (500 pieces)

Face Veil with Studs

DESCRIPTION

- BioClean™ Microflow Cleanroom Face Veil features ultrasonically sealed edges reducing the risk of contamination into the controlled environment, and features a fully enclosed malleable nose-band for a good fit and studs for a secure fastening to hood

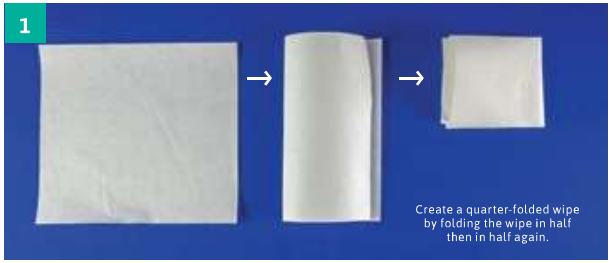
KEY FEATURES

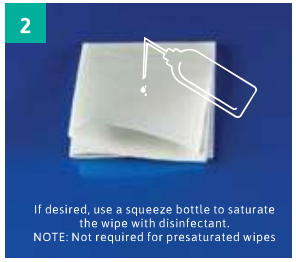
- Studs either side for attaching to cleanroom hoods
- Ultrasonically sealed seams
- Fully enclosed malleable nose-band
- Low-linting

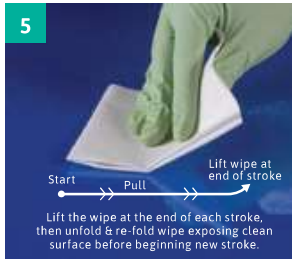
WIPES & ACCESSORIES

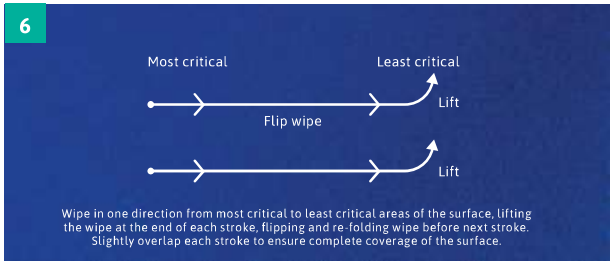
WIPING TECHNIQUE

The following cleanroom wiping technique is recommended for cleaning horizontal surfaces. We advise wiping from critical areas to less critical areas.









This guide is for guidance only, site protocols and procedures should be followed at all times.

BioClean™ Oryx BOWS — Sterile

Material	Hydroentangled non-woven polycellulose (55% cellulose & 45% polyester)
Cut	Blade
Colour	White
Size	BOWS-9: 230mm x 230mm (9" x 9") BOWS-9B: 230mm x 230mm (9" x 9") BOWS-12: 300mm x 300mm (12" x 12")
Weight	68gsm (±3gsm)
Compatibility	ISO Class 5
Packaging	**BOWS-9**: 10 pieces (C-folded)/sealed inner PE bag; 10 inner PE bags/sealed outer PE bag; 27 outer bags/lined carton (2700 pieces) **BOWS-9B**: 300 pieces (flat)/sealed inner PE bag; one inner PE bags/sealed outer PE bag; 8 outer bags/lined carton (2400 pieces) **BOWS-12**: 10 pieces (C-folded)/sealed inner PE bag; 10 inner PE bags/sealed outer PE bag; 18 outer bags/lined carton (1800 pieces)

Polycellulose Wipe

DESCRIPTION

- BioClean™ Oryx Sterile Non-woven Wipes are constructed from hydroentangled polycellulose. They have excellent absorption properties, are low-linting, smooth, durable and strong
- They contain no optical brighteners or whitening agents and are packed in an ISO Class 5 cleanroom to ensure low levels of particulates and extractables

KEY FEATURES

- Contains no optical brighteners or whitening agents
- Low-linting
- Outstanding absorption properties
- Excellent strength & durability

BioClean™ Oryx BOWB — Non-sterile

Please note: BOWB-16 & BOWB-18 Sizes subject to minimum order quantity (MOQ) and lead time

Material	Hydroentangled non-woven polycellulose
Cut	Blade
Colour	White
Size	BOWB-9: 230mm x 230mm (9" x 9") BOWB-12: 300mm x 300mm (12" x 12") BOWB-16: 400mm x 400mm (16" x 16") BOWB-18: 450mm x 450mm (18" x 18")
Weight	68gsm (±3gsm)
Compatibility	ISO Class 5
Packaging	**BOWB-9**: 300 pieces/sealed inner PE bag; one inner PE bag/sealed outer PE bag; eight outer bags/lined carton (2400 pieces) **BOWB-12**: 150 pieces/sealed inner PE bag; one inner PE bag/sealed outer PE bag; 14 outer bags/lined carton (2100 pieces) **BOWB-16**: 100 pieces/sealed inner PE bag; one inner PE bag/sealed outer PE bag; 10 outer bags/lined carton (1000 pieces) **BOWB-18**: 100 pieces/sealed inner PE bag; one inner PE bag/sealed outer PE bag; 10 outer bags/lined carton (1000 pieces)

Polycellulose Wipe

DESCRIPTION

- BioClean™ Oryx Wipes are constructed from hydroentangled polycellulose. They have excellent absorption properties, are low-linting, smooth, durable and strong
- They contain no optical brighteners or whitening agents and are packed in an ISO Class 5 cleanroom to ensure low levels of particulates and extractables

KEY FEATURES

- Contains no optical brighteners or whitening agents
- Low-linting
- Outstanding absorption properties
- Excellent strength & durability

BioClean™ IsoPure Plus S-BIWP-9 — Sterile

Material	Double-knit 100% continuous-filament polyester
Cut	Ultrasonic
Colour	White
Size	230mm x 230mm (9" x 9")
Weight	130gsm (±5gsm)
Compatibility	ISO Class 4 & EU GMP Grade A
Packaging	10 pieces per sealed inner PE bag; 10 inner PE bags per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces)

Polyester Wipe

DESCRIPTION

- BioClean™ IsoPure Plus sterile polyester wipes are constructed from double-knit 100% continuous-filament polyester, with ultrasonically cut and sealed edges ensuring ultra-low particulation
- They have excellent absorption, durability and strength, and are packed in an ISO Class 4 cleanroom environment

KEY FEATURES

- Excellent absorption properties
- Durable & strong
- Ultrasonically cut & sealed edges

BioClean™ IsoPure Plus BIWP — Non-Sterile

Material	Double-knit 100% continuous-filament polyester
Cut	Ultrasonic
Colour	White
Size	230mm x 230mm (9" x 9") 305mm x 305mm (12" x 12")
Weight	260gsm (±5gsm)
Compatibility	ISO Class 4
Packaging	**BIWP-9-1**: 100 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 10 outer bags per lined carton (1000 pieces) **BIWP-12-1**: 50 pieces per sealed inner PE bag; one inner PE bag per sealed outer PE bag; 20 outer bags per lined carton (1000 pieces)

Polyester Wipe

DESCRIPTION

- BioClean™ IsoPure Plus 260gsm wipes are constructed from double-knit 100% continuous-filament polyester, with ultrasonically cut and sealed edges ensuring low particulation
- They have excellent absorption, durability and strength, and packed in an ISO Class 4 cleanroom to ensure ultra-low levels of particulates and extractables

KEY FEATURES

- Ultra-low particulation
- Excellent absorption properties
- Durable & Strong
- Ultrasonically cut & sealed edges

BioClean™ ISO Leaf BICP

Non-sterile Cleanroom Bond Paper

KEY FEATURES

- Processed to ensure ISO Class 4 compatibility
- Sharp and clear reproductions
- Latex-free to eliminate Type I latex allergies
- Heat resistant
- Sterilizable & autoclavable
- 80gsm ±3g

PACKAGING

- 250 sheets per sealed PE pack.
- BICP-A4B80 (Blue)
- BICP-A4G80 (Green)
- BICP-A4P80 (Pink)
- BICP-A4W80 (White)
- BICP-A4Y80 (Yellow)

BioClean™ Supatac STB/STW

Non-sterile Tacky Mat-BLUE (STB)
Non-sterile Tacky Mat- WHITE (STW)

KEY FEATURES

- 30 numbered layers
- Anti-bacterial water based acrylic adhesive
- Available in variety of sizes
- ISO Class 5

PACKAGING

- Four mats (each with 30 numbered layers) per lined carton

BioClean™ ChemPrep S-BCPM

Sterile Prep-Mat

KEY FEATURES

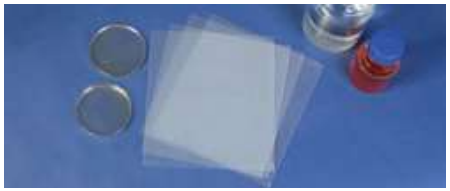
- Latex-free 3-layer construction
- Mesh upper layer for even distribution
- Highly absorbent middle layer
- Impermeable bottom layer
- ISO Class 5 & EU GMP Grade A

PACKAGING

- **S-BPCM-4025B** (40cm x 25cm):
  One piece per sealed inner PE bag; one inner bag per second PE bag; 50 double bags per sealed outer PE bag; four outer bags per lined carton (200 pieces)
- **S-BPCM-5640B** (56cm x 40cm):
  One piece per sealed inner PE bag; one inner bag per second PE bag; 25 double bags per sealed outer PE bag; four outer bags per lined carton (100 pieces)

BioClean™ S-BBPN

Sterile Cleanroom Bags



KEY FEATURES

- Ultraclean & low-density
- Additive-free material
- Gamma sterilized
- Double bagged
- Range of sizes and thicknesses available
- ISO Class 4 & EU GMP Grade A

PACKAGING

- **S-BBPN-10, S-BBPN-11, S-BBPN-12, S-BBPN-13, S-BBPN-14 & S-BBPN-18-20** = 20 pcs per pack
- **S-BBPN-11-25 & S-BBPN-2** = 25 pcs per pack
- **S-BBPN-3, S-BBPN-4, S-BBPN-5, S-BBPN-15 & S-BBPN-12-50** = 50 pcs per pack
- **S-BBPN-1, S-BBPN-6 & S-BBPN-13-100** = 100 pcs per pack

BioClean™ Permaflow S-BPFP

Sterile Cleanroom Pen

KEY FEATURES

- Autoseal prevents drying
- Alcohol resistant print on barrel
- Processed to ensure ISO Class 4 & EU GMP Grade A compatibility
- Super permanent ink
- Quick drying
- Non-toxic
- Permanent ink colours available in black, blue, green and red

PACKAGING

One pen per sealed inner PE bag; 10 inner bags per sealed outer PE bag; 20 outer bags per lined carton (200 pens)

Please note: Red colour is subject to minimum order quantity (MOQ) and lead time

BioClean™ Permaflow S-BPBP-1

Irradiated Cleanroom Ballpoint Pen

KEY FEATURES

- Alcohol resistant labelling
- Processed to ensure ISO Class 4 & EU, GMP Grade A compatibility
- Permanent ink Black, Blue or Red
- Fade and water resistant
- Quick drying
- Non-toxic
- ISO 12757-1 and ISO 12757-2 compliant (excluding red ink)
- Gamma irradiated

PACKAGING

One pen per inner PE bag; Three pens per sealed outer PE bag; 100 outer PE bags per carton liner; One carton liner per carton (300 pens)

Please note: Red colour is subject to minimum order quantity (MOQ) and lead time

BioClean™ Pharma Covers BPC

Equipment and Glassware Covers

KEY FEATURES

- Breathable microbial barrier
- Fast drying time
- Lint-free, moisture and puncture resistant
- IPA resistant coloured thread
- Form fitted, easy to apply and remove
- Autoclavable at 121°C to 127°C
- ISO Class 4

PACKAGING

- **BPC-005/BPC-008/BPC-010/BPC-013/BPC-018/BPC-023/BPC-030/ BPC-041/BPC-051**: 50 pieces/sealed inner PE bag; 10 inner bags/ sealed outer PE bag; One outer bag/lined carton (500 pieces)
- **BPC-061/BPC-076/BPC-091/BPC-122**: 10 pieces/sealed inner PE bag; 10 inner bags/sealed outer PE bag; One outer bag/lined carton (100 pieces)
- **BPC-152/BPC-183/BPC-229**: Two pieces/sealed inner PE bag; 10 inner bags/sealed outer PE bag; One outer bag/lined carton (20 pieces)
- All sizes subject to a minimum order quantity (MOQ)
- Also available in sterile, please inquire for further information

BioClean™ BBC

Bouffant Cap

Material	Spunbond polypropylene
Size	Universal
Packaging	100 pieces per sealed inner PE bag; 10 inner bags per sealed outer PE bag; one outer bag per lined carton (1000 pieces)

DESCRIPTION

- The BioClean™ Bouffant Cap is lightweight and breathable and reduces the risk of contamination from the head area from entering the controlled environment

KEY FEATURES

- Lightweight
- Latex-free elastic
- White or Blue
- Universal size

RESOURCES

- FAQ
- Online Info

FAQ

CONTROLLED/CRITICAL ENVIRONMENTS

1 WHERE CAN I FIND THE PRODUCT TEST REPORTS?

Product data sheets are used to present information about our products to customers in an easy-to-digest format. If you have specific queries about a product, we can provide detailed answers and reports. For some of our products there is a lot of information available, and for a number of those we have compiled product validation packs.

2 HOW MUCH EXPERIENCE DO WE HAVE WITH MEETING THE NEEDS OF VARIOUS CRITICAL ENVIRONMENTS?

We have over 50 years of technical experience in cleanrooms and critical operating environments. This wealth of industry experience gives us a unique and priceless knowledge base that we use to help our distributors and their customers find the right products for their needs. If you have any queries then please do not hesitate to contact us.

3 WHAT ARE LATEX GLOVES?

Latex gloves are manufactured from natural rubber latex, derived from the sap of the rubber tree, Hevea brasiliensis.

4 WHAT ARE NITRILE GLOVES?

Nitrile gloves are manufactured from a petroleum-based, cross-linked synthetic latex film that is formed by the co-polymerization of butadiene with acrylonitrile to yield a nitrile elastomer.

5 WHAT ARE GLOVE ALLERGIES?

A glove allergy, or hypersensitivity, occurs when a person's immune system reacts to the natural latex proteins and/or the additives used during the manufacturing process of gloves. The reactions range from mild (skin rash, runny nose, itchy, watery eyes) to more extreme manifestations such as facial or throat swelling, and difficulty in breathing. Whilst most allergies or sensitivities are generally slight, a very small percentage of users may experience very severe reactions.

6 WHY WOULD I USE A 16" GLOVE?

You would use a 16" glove if you want more protection up to the elbows when covering the sleeve. Also, a 16" glove will hold the sleeve in-place better than a 12" glove.

7 WHAT IS THE DIFFERENCE BETWEEN TYPE 1 AND TYPE 4 ALLERGIES?

Type 1: The most serious and the rarest form, Type 1 is an immediate and potentially life threatening reaction, not unlike the severe reaction some people have to bee stings. This form of Allergy is normally associated with latex proteins. Latex allergies can be acquired over time due to prolonged contact with latex products. Type 4: Also known as allergic contact dermatitis. This involves a delayed skin rash with blistering and oozing of the skin, and is usually attributed to the accelerators used in the processing of rubber products. We offer products that are manufactured without accelerators-further information can be supplied on request.

8 WHEN DOES A PPE GLOVE BECOME A CATEGORY III GLOVE FOR CHEMICAL PROTECTION?

According to the Personal Protective Equipment Regulation (PPER), (EU) 2016/425, any PPE that protects against risks that may cause very serious consequences such as death or irreversible damage to health relating to substances and mixtures which are hazardous to health is Category III. Any glove that protects against 'cleaning materials of weak action or prolonged contact with water are defined as Category I. So any glove that is intended to protect against anything other than the weakest of chemicals is a Category III glove.

9 HOW CAN I TELL IF GLOVES HAVE BEEN STERILIZED?

The packaging clearly shows they are sterile gloves. Each carton will have a red irradiation sticker, showing that the contents have been gamma sterilized. The irradiation sticker is yellow prior to sterilization and changes colour to red during processing. A certificate of irradiation is available showing the lot number and carton number and confirming that the gloves have been sterilized.

10 WHEN SHOULD YOU DOUBLE DON GLOVES?

We recommend double donning gloves to provide extra protection. The more layers, the more protection against chemicals. Also, double donning limits the chance of penetration through pinholes. Statistically, there is a very low chance of two pinholes being in exactly the same place on two gloves. Gloves designed to work as a double-gloving system, offer operators an additional layer of protection throughout chemo preparation and administration process. By using a brightly coloured underglove with a natural coloured outer glove, any breach is immediately visible, giving the operator an early signal to change gloves.

FAQ

LABORATORY/RESEARCH

1 WHAT IS MEANT BY CHEMICAL PERMEATION AND PENETRATION?

Chemical permeation is the process by which a chemical moves through a protective glove material on a molecular level. Permeation involves the following: absorption of molecules of the chemical into the contacted (outside) surface of a material, diffusion of the absorbed molecules in the material, and desorption of the molecules from the opposite (inside) surface of the material. Penetration is the movement of a chemical and/or micro-organism through porous materials, seams, pinholes, or other imperfections in a protective glove material or other barrier layer on a non-molecular level.

2 WHAT DOES BFE, PFE & DELTA P MEAN?

When selecting a facemask, it's important to choose one with the right filtration efficiency for the level of protection needed. The BFE % of a facemask is the measurement of bacterial filtration efficiency and PFE % is the measurement of particle filtration efficiency. Facemasks with a high BFE and PFE % are recommended for use in cleanrooms, ensuring high filtration of both bacteria and particles. The Delta P symbol stands for Differential Pressure (Delta P) and refers to the pressure drop across a facemask (or the resistance to air flow) and is measured in mmH_2O/CM^2. A lower Delta P indicates easier breathing, however higher filtration efficiency generally increases the Delta P.

3 WHAT IS THE DIFFERENCE BETWEEN A CERTIFICATE OF IRRADIATION (COI) AND A CERTIFICATE OF PROCESSING (COP)?

The Certificate of Irradiation (COI) refers to products that are gamma irradiated, and the Certificate of Processing (COP) refers to products that are processed with ETO (e.g. goggles).

4 WHAT DOES SAL 10^{-6} MEAN?

A Sterility Assurance Level of 10^{-6} means that for every 1,000,000 items sterilized there may be one that contains bacteria that have survived the sterilization process. The SAL is a statistical probability that is used because it is impossible to prove that all bacteria have been killed during the sterilization process. In practice the theoretical degree of processing to achieve the desired SAL is determined, and then routine processing is set at a higher level in order to achieve 'overkill'.

FAQ

PRODUCTION/MANUFACTURING

1 WHICH GLOVES SHOULD I USE IF I NEED ESD PROPERTIES?

Nitrile, Neoprene/Polychloroprene and Vinyl gloves are the best to choose when looking for a glove with good ESD properties. The differences between anti-static and ESD are-ESD properties means the characteristics of a material which determine the way it performs when exposed to static electricity. Anti-static is the property of a material which either prevents the build-up of static electricity or reduces its effects.

2 WHAT ARE THE CERTIFICATIONS OF YOUR CLEANROOM GLOVES?

All our CE-marked cleanroom gloves are certified to comply with the requirements of the Personal Protective Equipment Regulation (PPER), (EU) 2016/425. Under the terms of the regulation our gloves are classed as Category III PPE.

By CE marking our gloves we claim that they satisfy the essential safety requirements of Regulation (EU) 2016/425 by the application of the following standards: EN 420:2003 +A1: 2009: Protective gloves – general requirements; EN 374-1: 2016: Protective gloves against dangerous chemicals and microorganisms – Part 1 Terminology and performance requirements for chemical risks; EN 374-2: 2015: Protective gloves against dangerous chemicals and microorganisms – Part 2 Determination of resistance to penetration; EN 374-4: 2013: Protective gloves against chemicals and microorganisms – Part 4 Determination of resistance to degradation by chemicals; EN 374-5: 2016: Protective gloves against dangerous chemicals and microorganisms – Part 5 Terminology and performance requirements for micro-organisms risks.

3 HOW LONG CAN CLEANROOM MASKS BE WORN?

As far as we are aware, there is no recommendation or code of practice that stipulates the length of time that a mask can be worn before it must be changed. Indeed every individual and every environment is different, so the length of time that a particular mask can be worn for depends on the conditions and should be assessed by the company operating the cleanroom. In practice, due to regular comfort breaks during a work shift, the reality is that masks (along with gloves) will be changed every two to three hours, and so the question of the maximum amount of time that a mask can be worn becomes academic.

4 I AM CONCERNED ABOUT THE SAFETY OF MY ETO STERILIZED GOGGLES. WHAT CAN YOU TELL ME ABOUT ETO EXPOSURE LEVELS?

The permissible levels of EO residuals are specified in ISO 10993-7: 2008, Biological evaluation of medical devices Part 7: Ethylene oxide sterilization residuals. There are two residual chemicals of concern, namely Ethylene Oxide (EO) and Ethylene Chlorohydrin (ECH).

As part of the sterilisation validation, we tested for residuals and found the average levels to be EO = 0.43mg and ECH = 0.06mg per goggle. Approximately 6% of the goggle is in contact with the wearer so the residuals that are transferrable to the wearer are EO = 0.026mg and ECH = 0.004mg. The standard defines three exposure categories for the device then assigns safe exposure limits for each category.

The categories are: a) Limited exposure: devices whose single or multiple use or contact is likely to be up to 24 h; b) Prolonged exposure: devices whose single, multiple, or long-term use or contact is likely to exceed 24h but not 30 days; c) Permanent contact: devices whose single, multiple, or long-term use or contact exceeds 30 days. With a product like the goggles the time worn in total is taken into account, not the time that each goggle is worn. Given the definitions above, a typical worker is going to exceed 30 days so we need to treat the exposure as permanent contact.

NOTE: ISO 10993-7 defines Lifetime as 25,000 days. So, our EtO sterilised goggles are well within the limits set by ISO with the actual results being about a quarter of the allowable levels. With regard to FDA requirements, the only document dealing with residuals is a draft guidance document from June 1978, which never progressed beyond the draft stage. In that document the limits were set at 250 parts per million for EO and also for ECH. We have looked up several guidance documents for specific medical devices that are EO sterilised and in those there are references to ISO 10993-7 for the evaluation of residuals. That guidance looks to have started in about 2000 and ISO 10993-7 is now listed on the FDA site as a Recognised Consensus Standard, which means that it can be used in claims of compliance in 510(k) submissions. We have not found anything on the FDA website which discourages the use of Ethylene Oxide as a method of sterilisation. In fact ISO 11135-1, which is the standard for the Ethylene Oxide sterilisation process, is also listed as a Recognised Consensus Standard which would indicated that it is an acceptable method of sterilisation.

FAQ

RABS AND ISOLATOR GLOVES

1 BIOCLEAN NITRILE RABS & ISOLATOR GLOVES ARE 100% INSPECTED, HOW?

Our manufacturing process has five separate product inspections throughout. Each Nitrile RABS/Isolator glove/mitten is visually inspected 100% for holes, along with water and air pressure testing.

This is achieved by the gauntlet being filled with air to a specified pressure before being submerged underwater for three minutes. The water is checked for any bubbles identifying whether the product has a pinhole leak. This 100% inspection guarantees delivery of a glove or mitten free from holes, and is more rigorous than the AQL approach for surgical gloves which is based on a statistical sampling plan.

2 CAN THE NITRILE ISOLATOR GLOVES BE AUTOCLAVED?

Yes. Our nitrile RABS/isolator gloves can be autoclaved and perform better than CSM/Hypalon. For documentation, please contact us.

3 CAN THE NITRILE ISOLATOR/RABS GLOVES BE WIPED DOWN WITH IPA IN 70% CONCENTRATION?

Yes. For documentation, please contact us.

4 CAN THE NITRILE ISOLATOR/RABS GLOVES BE SUBJECTED TO VHP?

Yes. For documentation, please contact us.

5 ARE THE NITRILE ISOLATOR GLOVES GREEN?

Our manufacturing process is coagulate, not solvent based, a process which is much more environmentally and personnel friendly.

6 ARE THE GLOVES NITRILE ISOLATOR PROP 65 COMPLIANT?

Yes. For documentation, please contact us.

7 WHAT IS THE STANDARD LEAD TIME?

Our Nitrile RABs/Isolator Gloves are made to order with a lead time of 8-10 weeks.

8 WHAT PACKAGING DO YOU USE?

Nitrile RABs/Isolator Gloves are individually triple bagged in PE so that you can maintain cleanliness and sterility as you bring the gloves into your final production area.

GET MORE PRODUCT INFORMATION ONLINE

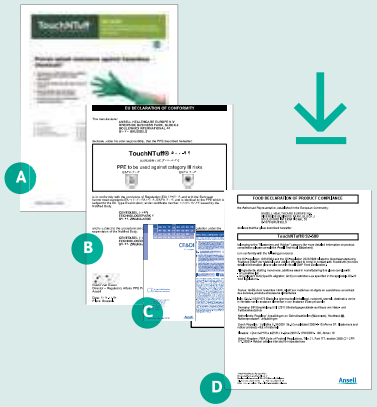
Our new website provides content rich information on safety, solutions, documents and downloads, regulatory and company information with simple navigation of our full portfolio of hand, arm and body protection solutions.

www.ansell.com/lifesciences

PRODUCT INFORMATION

Your search options also include various downloadable data sheets:

- **A** Product sheets
- **B** EU declarations conformity
- **C** Instructions for use
- **D** Food declarations of product conformity



LIFE SCIENCES SECTION

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1 Ansell Solutions by type of protection

2 Product Finder

3 Critical Insight Blog

4 FAQs

Neither this document nor any other statement made herein by or on behalf of Ansell should be construed as a warranty of merchantability or that any Ansell product is fit for a particular purpose. Ansell assumes no responsibility for the suitability or adequacy of an end-user's selection of gloves for a specific application.

Any information or data provided is based upon Ansell's current knowledge and understanding of the subject matter, and is offered solely as a possible suggestion for use in making your own decisions or product choices. Product users should conduct all appropriate testing or other evaluations to determine the suitability of Ansell products for a particular purpose or use within a particular environment. Ansell may revise this information as new information, knowledge or experience becomes available.

PRODUCT DISCLAIMER AND WARNING:

Products containing natural rubber latex may cause allergic reactions in some individuals. Products that provide "cut resistance" and "cut protection" or "puncture resistance" and "puncture protection" do not completely prevent or eliminate the potential for cuts or punctures, and are not intended or tested to provide protection against powered blades, serrated or other sharp or rotating equipment. Products that provide "abrasion resistance" or "abrasion protection" do not completely prevent or eliminate the potential for abrasion-related injuries. Products that provide "resistance" to oil or grease or which are "oil repellant" do not completely prevent or eliminate the potential for oil or liquid penetration or absorption. Products that provide "snag resistance" or "snag protection" do not completely prevent or eliminate the potential for snags or friction-related injuries. Products that provide protection against sparks or flame are not "fire-proof" and do not completely prevent or eliminate the potential for burns or associated injuries. Products that provide protection or resistance against heat or cold are not intended for use in extreme temperatures-use only as specified.

Products that provide "chemical resistance" or "chemical protection" do not completely prevent or eliminate the potential for injury due to chemical exposure, and where specific chemical permeation times are provided, they are based on laboratory environments that may differ from a user's worksite. Users should test chemical protective products against the particular environments and chemicals where the product is to be used.

Users are encouraged to always use caution and care when handling sharp or abrasive materials, chemicals, or other hazardous or dangerous substances. Any information or data provided is based upon Ansell's current knowledge and understanding of the subject matter, and is offered solely as a possible suggestion for use in making your own decisions or product choices. Product users should conduct all appropriate testing or other evaluations to determine the suitability of Ansell products for a particular purpose or use within a particular environment. Ansell may revise this information as new information, knowledge or experience becomes available. ANSELL DISCLAIMS ALL WARRANTIES OTHER THAN AS EXPRESSLY PROVIDED. According to current OSHA regulations, the employer has the final responsibility for selecting gloves and other personal protective equipment.

ZCATALEN/LS Catalogue EN/10.000/09.19/Graphcom

Ansell

Contact your Ansell representative for ordering or more information.

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