HIGH PROTECTION IN CLEANROOMS

MM



CLEAN ROOM PRODUCTS

WHY APEX PROTECT?

When it comes to production in cleanrooms, the products produced need to be protected from both microbial and particulate contamination. Apex Protect provides the highest level of protection with the products offered.

Apex Protect;

• Shares knowledge and experience on cleanroom products with customers

and delivers products developed with the latest technology

- Focus on solutions with customers
- Never compromises on quality
- Adopted cGMP
- ISO 9001 certified company
- To give the best price for the best quality; either the products are produced

by themselves or purchased from direct producers.

• The largest capital is to focus on cleanroom products, experience in this

subject and highly trained employees



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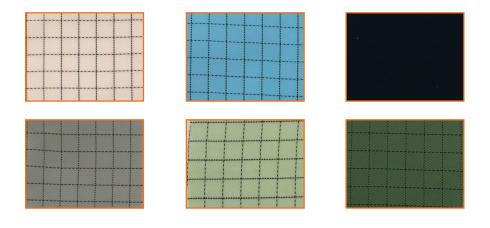
CLEANROOM GARMENTS

Cleanroom garments are the most important barriers between cleanrooms and people. Garments are produced from special fabric, for comfort of the garments prioritise.

In cleanroom garments; we have a wide product range such as overalls, underwear, apron, headgear, footwear, galosh, socks, bags, cuffs, neck collar and bonnet. The garments are special sewing; models can be changed in accordance with the usage preferences requested by the customer.

AP113KUM fabric consists of 98% Polyester – 2% Polyester Carbon composition with antistatic properties suitable for use in GMP A, B and C / ISO 4, 5, 6 and 7 class areas; It is certified by ITV that it is resistant to at least 50 washes and autoclaving. The fabric has a very high filtration characteristic and the comfort of the clothes is also high.

AP113KUM has 6 different colours: white, blue, dark blue, gray, light green and dark green.



AP125KUM fabric consists of 98% Polyester - 2% Nega-Stat composition with antistatic properties suitable for use in GMP D / ISO 8 class area. AP125KUM has 2 different colours: White and blue.



AP80KUM fabric is used as underwear fabric and it is 100% Polyester; has 3 different colours: white, blue, and green.



WASHING TRACKING PROGRAM

Washing tracking program designed to follow the used clean room garments; according to the manual system; it is a more faster, more smarter (intelligent barcode), more economical, less error-prone, provide better reporting opportunities, more validated, more cGMP-compliant program. Software validation and maintenance service is also offered. The necessary hardware and barcode reader for the installation is also offered by our company. Please contact us for detailed information.

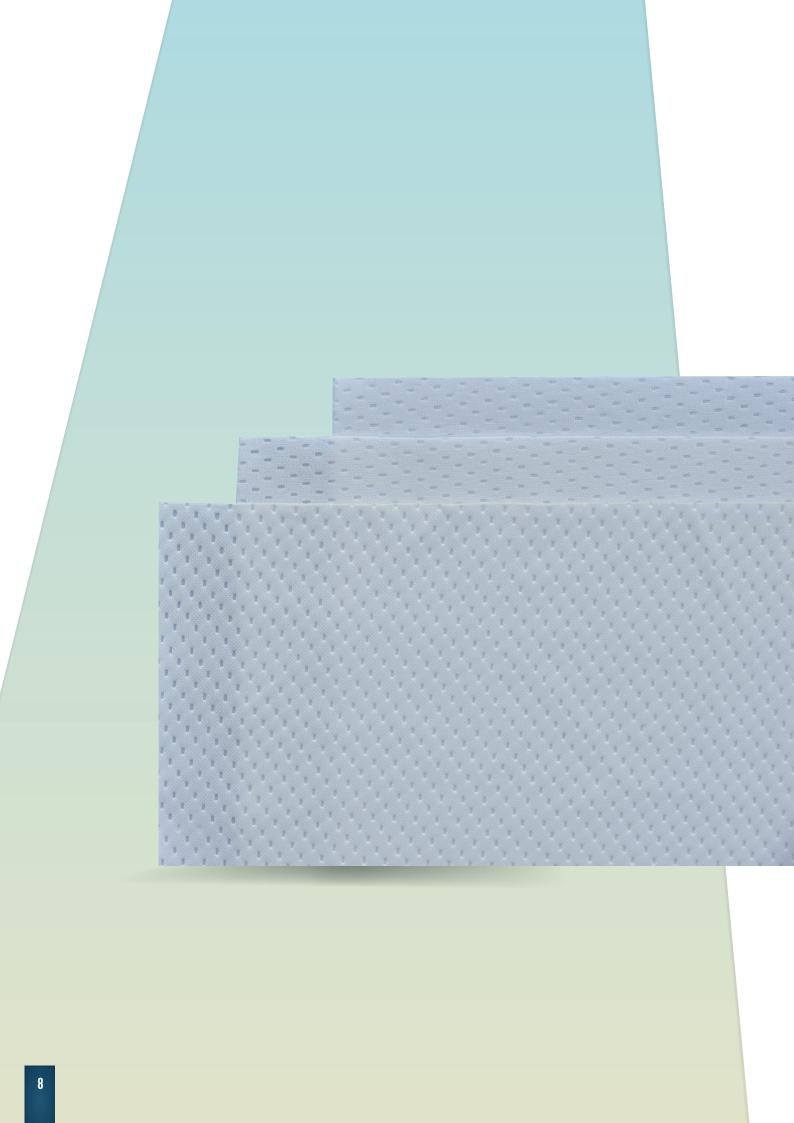


DETERGENT

In the washing of cleanroom garments; it is necessary to use a special liquid detergent in order to ensure that the antistatic properties of the garments are not lost and that the detergent-derived particle level that may remain in the garment is kept to a minimum. Purlovan® formula developed especially for the washing of cleanroom garments; it's environmentally friendly and avoids the use of unwanted borate, aluminum and phosphorus for the cleanroom industry. In the tests made; even after 50 washings, for antistatic and ESD garments; it has been observed that the protective function is maintained.



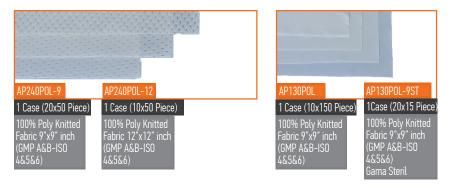
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CLEANROOM WIPES

Our cleanroom wipes are made of 100% polyester or 45%/55% polyester / cellulose material. We have products of different weight and quality (sterile and non-sterile).

Which are manufactured from 100% polyester; AP135POL is available in 9 inch; AP240POL is available in 9, 12 and 24 inch sizes, these are suitable for use in GMP-A, B / ISO 4, 5 and 6 areas.



Which are manufactured from 45% polyester -55% cellulose; AP56PC is available in 9 and 12 inch; AP68PC is available in 12 inch sizes, these are suitable for use in GMP-C, D / ISO 7 and 8 areas.



AP130P0L-9-S	AP240P0L-9-S	AP240P0L-12-2	
1 Case (10x10 Piece)	1 Case (10x10 Piece)	1 Case (5x20 Piece)	
100% Poly Knitted Fabric 9"x9" inch (GMP A&B-ISO 4&5&6)	100% Poly Knitted Fabric 9"x9" inch (GMP A&B-ISO 4&5&6)	100% Poly Knitted Fabric 12"x12" inch (GMP A&B-ISO 4&5&6)	



LEANROOM GLOVES

Cleanroom gloves must be washed and cleaned with water in clean rooms after production. The amount of particles present on the surface of the gloves must be known. Glove manufacturers may wish to brand their gloves as ISO Class 4 (Fed STD Class 10) or ISO Class 5 (Fed STD Class 100), Shield Scientific challenge this paradigm and would ask how classifications for airborne particulates relate to gloves. In reality there are no internationally

recognised specification limits that would determine whether a cleanroom glove is ISO Class 4 (Fed STD Class 10) or ISO Class 5 (Fed STD Class 100) compatible. Accordingly it is left to users to decide what is suitable for their process. With this in mind, Shieldskin Xtreme™ gloves are branded as follows:

BRANDING	PROCESS	USER BENEFITS
DI	Single washed in deionised water	• The most economical option • Typical particle levels <3000 per $cm^2 \ge 0.5 \ \mu m$
DI+	Triple washed in deionised water	 The median brand option Typical particle levels <950 per cm² ≥ 0.5 μm
DI++	Washed several times in deionised water	• Premium offering based on extra processing • Typical particle levels <650 per cm ² \geq 0.5 μm









SHIELDskin Xtreme [™] Sterile White Nitrile 400 DI+









Orange NitrileTM 300D





REUSABLE MOPS

Autoclavable multi-use clean room mop's standard size is 40cm, Polyester Microfiber mixture. It can be autoclaved up to 50 times.

APCKMOP40-A 1 Piece Reusable Mop Non-Sterile



DISPOSABLE MOPS

Disposable mops are generally used in clean rooms where there is no possibility of autoclaving and toxic substances are applied; are available in both non sterile and sterile (single and double layer packaged).



APTKMOP	APTKMOPS
1 Piece	1 Piece
Disposable Mop Non-Sterile	Disposable Mo Sterile

ISOLATOR CLEANING TOOL

The ICT used to clean the isolator and LAF cabinets has a breakable feature. The ability to break is a great convenience developed and patented by our company. ICT is made from autoclavable stainless steel and is lightweight and easy to grip.

It is used with 100% Polyester ICT Mop, which can be easily attached and detached. The ICT Mop is available in both non sterile and sterile (single and double layer packaged). Mops are specially sewed for ICT, packed in cleanrooms washed with DI water. Mops are certified on lot basis.





IPA 70%

70% IPA consists of European Pharmacopoeia grade IPA and water for injection in order to guarantee endotoxin levels below 0.25EU/ml; is filtered from 0.2µm filter.

Bag-in-Bottle trigger sprays are used in cleanrooms in the pharmaceuticals industry and hospitals. This system has been validated to give sterility in use for a 13 weeks after the first usage.

It has sterile and non-sterile form. It has being sterilised by a validated gamma irradiation process at no less than 25 kGy; double bagged.





Sterile IPA 70% in WFI Trigger Spray • 900ml • 6x900ml



Sterile IPA 70% Alcohol Wipes 10x10

1215

Non-Sterile IPA 70% in WFI Trigger Spray • 1L • 15x1L





NEUTRAL DETERGENT

For effective disinfection to be achieved it is imperative that surfaces are free from any visible soiling or build up of residue from previous disinfectant applications.

Neutral Detergent formulated to be low foaming it does not leave significant residues or smears. With highly effective surface cleaning properties it is ideal when a deep clean is required.

Bag-in-Bottle trigger sprays system has been validated to give sterility in use for a 13 weeks after the first usage.

It has being sterilised by a filtered from 0.2µm filter and a validated gamma irradiation process at no less than 25 kGy; double bagged.



Sterile Neutral Detergent in WFI Trigger Spray • 900ml • 6x900ml

1129

Non-Sterile Neutral Detergent in WFI Trigger Spray

- 11
- 15x1



Sterile Neutral Detergent in WFI Bottle • 1L

1223

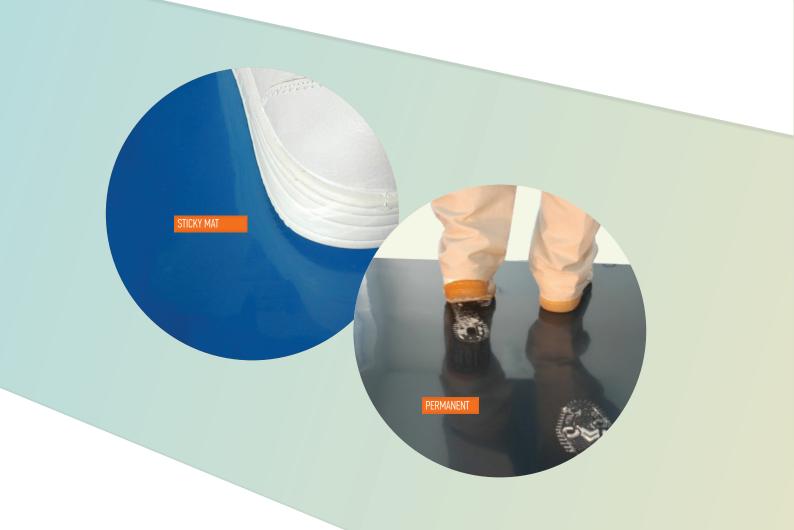
Non-Sterile Neutral Detergent in WFI Bottle • 5L • 4x5L

STICKY MATS FOR CLEANROOMS

The importance of using these mats is that the particles on the bottom of the shoes are prevented from entering the cleanroom.

Particularly effective is the combined use of permanently washable (for large particles) and retractable (stronger and smaller particles) mats.







SHOES & CLOGS

Shoes and clogs brought under the Abeba and Soldini Professional brands; autoclavable clogs are used for the pharmaceutical industry and ESD-based clogs and shoes are used for the electronics sector.



MASKS

Masks are produced in 3 floors with special fabric which leaves less particles for cleanroom. It's not a hospital mask that leaves a lot of particles. Our sterile mask is individually packaged, gamma irradiated. Certificate of Irradiation (COI) is available on a lot basis.







Non-Sterile Mask Cleanroom

GOGGLES

Sterile Mask Cleanroom

Goggles brought under the Bolle-Safety brand; have anti-fog and autoclavable properties.







DISPOSABLE GARMENTS

Disposable garments are products of the İndutex brand.

APPUNTIPG		
1 Piece		
PUNTIFORM (PartiGuard) Overalls with Hood		



APPROPSMS 1 Piece PROPGUARD SMS Overals



www.apexprotect.com

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