

# SmartClean™



**The Cleanroom Gloves Specialist**  
Electrostatic Dissipative (ESD)

**SMART GLOVE™**

# SmartClean™ Cleanroom Glove



- Featuring soft and stretchy technology designed for excellent dexterity, tactility and durability for best performance
- Provides extra comfort fit to the users when carrying out tasks over long hours and reducing hand fatigue
- Exceptionally low levels of particles, ionic extractable and non-volatile residue (NVR), suitable for cleanroom compatible processes
- Offers superior electrostatic dissipative (ESD) properties (antistatic) enabling vital protection to sensitive applications
- Packed in a cleanroom environment using double bagged packaging, increasing control over potential contamination

Our Cleanroom Gloves are suitable for use in the following industries:-

- Semiconductor
- Healthcare
- Optics and Biotechnology
- Manufacturing industries that require a clean and controlled environment
- Hard Disk Drive
- Aerospace
- Pharmaceutical
- Microelectronic
- Laboratory



## Product Information

<b>Material</b>	Nitrile
<b>Usage</b>	Single use
<b>Thickness by finger</b>	6-7mil, 4-5mil, 4mil, 3.5mil
<b>Clean environment</b>	Class 10 Class 100 Class 1000
<b>Finishing</b>	Tacky, Non-Tacky
<b>Glove Type</b>	Ambidextrous (Finger Textured, Full Textured) Hand Specific (Micro Textured)
<b>Cuff</b>	Beaded
<b>Length</b>	240mm, 300mm, 330mm
<b>Colour</b>	Opaque White, Translucent

## Packaging Detail

AMBIDEXTROUS			HAND SPECIFIC	
SIZE	PALM WIDTH (mm)	PACKAGING	SIZE	PACKAGING
XXS	60-72	Double polybag vacuum seal packed 100 gloves per double polybag 10 polybags per case	5 ½	1 pair per pouch 10/20 pouches per polybag 10/20 polybags per case
XS	70-82		6	
S	80-92		6 ½	
M	90-102		7	
L	100-112		7 ½	
XL	110-122		8	
XXL	120-132		8 ½	
			9	



## Physical Properties Information

		SPECIFICATION			TYPICAL VALUE		
		Class 10	Class 100	Class 1000	Class 10	Class 100	Class 1000
<b>Tensile strength</b>	Before & After aging	Min 14MPa			16 – 35MPa		
<b>Ultimate elongation (elasticity)</b>	Before aging	Min 500%			600% – 720%		
	After aging	Min 400%			550% – 680%		

## Properties Information

<b>Fourier Transform Infrared Spectroscopy (FTIR)</b>	No silicone, amide and Dioctyl phthalate (DOP) detected (Tested in accordance with IES – RP – CC – 005.2)				
<b>Triboelectric charge test, voltage</b>	≤ 20 V				
<b>Time Decay (1000V-100V) Electrostatic Dissipative (ESD)</b>	Less than 3.0 sec (Tested in accordance with FTMs No. 101 [Method 406])				
<b>Surface Resistivity (SR)</b>	10 <sup>8</sup> – 10 <sup>11</sup> Ω / sq. (Tested in accordance with ASTM D257-93)				
<b>Non-volatile residue (NVR)</b>	Max 30mg/g				
<b>Thickness Single wall (mm)</b>		<b>SPECIFICATION</b>	<b>TYPICAL VALUE</b>		
			3.5mil	4-5mil	6-7mil
	Finger (at 13±3mm from fingertip)	Min 0.09	0.09 ± 0.02	0.11 ± 0.02	0.17 ± 0.02
	Palm (at center of palm)	Min 0.06	0.06 ± 0.02	0.08 ± 0.02	0.13 ± 0.02
	Cuff (at 25±5mm from cuff edge)	Min 0.05	0.05 ± 0.02	0.07 ± 0.02	0.11 ± 0.02
<b>Certificate of Conformance</b>	A Certificate of Release is available upon request to ensure all products shipped conform to specified specification				
<b>Quality Assurance</b>	Meet or exceed ASTM D6319 on water leak & dimension Manufactured under GMP, ISO 9001, ISO 13485 and CMDCAS Quality System				





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GLOVES SPECIALIST

## Cleanliness Specifications

		SPECIFICATION			
		Class 10		Class 100	Class 1000
<b>Particle (counts / cm<sup>2</sup> @ ≥ 0.5µm)</b>		<300	<800	<1500	<3500
<b>Ionic extractable Less than (µg /cm<sup>2</sup>)</b>	Ammonium (NH <sub>4</sub> <sup>+</sup> )	0.001	0.050	0.100	0.150
	Calcium (Ca <sup>2+</sup> )	0.150	0.200	0.300	1.000
	Lithium (Li <sup>+</sup> )	0.001	0.001	0.001	0.050
	Magnesium (Mg <sup>2+</sup> )	0.001	0.010	0.100	0.150
	Potassium (K <sup>+</sup> )	0.020	0.050	0.100	0.150
	Sodium (Na <sup>+</sup> )	0.020	0.050	0.100	0.150
	Bromide (Br <sup>-</sup> )	0.001	0.001	0.001	0.050
	Chloride (Cl <sup>-</sup> )	0.100	0.100	0.200	0.350
	Fluoride (F <sup>-</sup> )	0.001	0.001	0.001	0.050
	Nitrate (NO <sub>3</sub> <sup>2-</sup> )	0.050	0.050	0.100	0.250
	Nitrite (NO <sub>2</sub> )	0.001	0.001	0.001	0.050
	Phosphate (PO <sub>4</sub> <sup>3-</sup> )	0.001	0.001	0.001	0.050
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	0.050	0.050	0.100	0.500	

(Tested in accordance with IEST - RP-CC - 005.4)





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