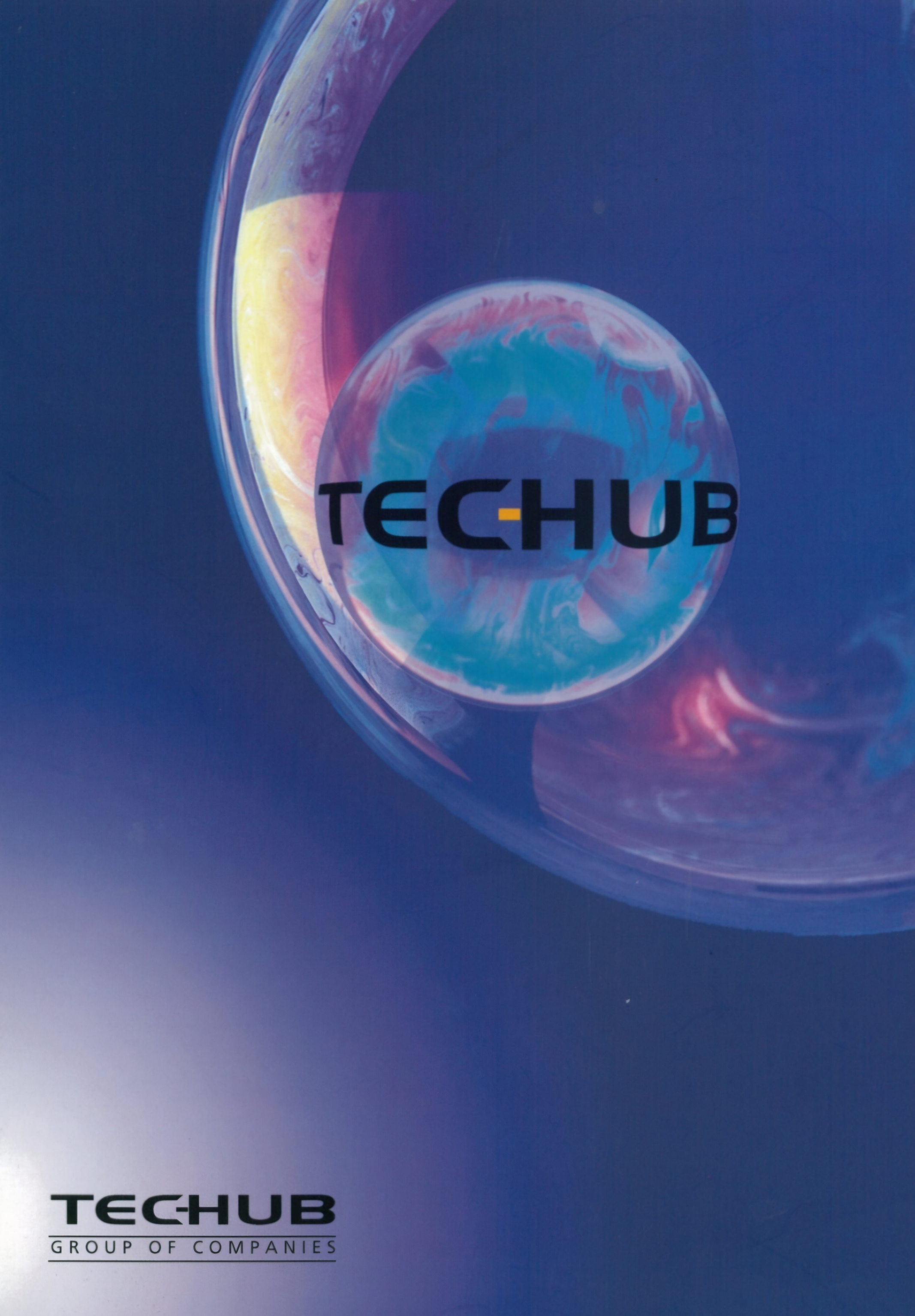




TECHUB

TECHUB
GROUP OF COMPANIES

CONTENT

Introduction

TEClean Nitrile Gloves
TEClean Latex Gloves

Dust-Free Stationery

TEClean Finger Cots

TEClean Finger Stalls
TEClean Vinyl Gloves
TEClean Antistatic Gloves

Cleanroom Apparel

Cleanroom Accessories

Component Cleaning Supplies
Cleanroom Cleaning Appliances & Supplies

Cleanroom Furniture
Cleanroom Appliances

Grounding Solutions
Electrostatic Protection Material

ESD Stationery Cum Accessories

Cleanroom / ESD Control Labels
ESD Control Chemicals

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防静电剂

As a consequence of rapid technological advances, microchips and hard-disks have shrunk in size in tandem, whilst their performance and capacity have been enhanced exponentially. In turn, a corresponding demand is being imposed on the controlled environments in which these high tech products are manufactured/assembled. Contamination, which is 'fatal' to these highly sensitive cutting-edge electronic components, can only be kept at bay with the use of high quality cleanroom consumables and ESD control products.

In the past, vendors of cleanroom consumables and ESD control products who could keep pace with technological advances and offered quality products to meet customers' acceptance criteria could be assured of both market share and attractive profits. With globalisation gathering pace in recent years, competition is becoming increasingly keener. As a result, such high quality indirect materials have to be competitively priced as well just to maintain market share.

The range of cleanroom consumables and ESD control products offered by the TEC-HUB Group are aimed at meeting these two essential requirements:

- a) consistent quality
- b) competitive pricing

Headquartered in Singapore, our marketing offices on the West Pacific Rim are located in China (Shenzhen and Suzhou), Hong Kong, Korea, Malaysia and The Philippines. Our team have been servicing multi-national high tech industries for one and a half decades and are therefore familiar with and responsive to the exacting expectations of customers' highly volatile business.

We owe the growth of our business to the support from our customers. Their continued support during what is probably the most challenging era for high tech industries is testimony to their faith in us to deliver products of consistent quality at competitive prices on schedule. We value this opportunity for us to play a role in their continued success.

In return, we pledge to continue doing our best in playing our role as a provider of cost-effective contamination and ESD control solutions while our customers roll back the frontiers of technology to create a better tomorrow.

TEClean NITRILE GLOVES 丁腈手套



DESCRIPTION

TEClean 9"/12" Class 100 and Class 10K Cleanroom Nitrile Gloves

MATERIAL

Acrylonitrile Latex

DIMENSIONS

Glove Size	Palm width (mm)	Length (mm)
Extra - Small	55-75	min. 240 / 280
Small	70-90	min. 240 / 280
Medium	85 - 105	min. 240 / 280
Large	100 - 120	min. 240 / 280
Extra - Large	105 - 125	min. 240 / 280

PHYSICAL PROPERTIES

	Before Aging	After Aging
Tensile Strength (MPa)	Min. 18	Min. 16
Elongation (%)	Min. 500	Min. 400

CLEANLINESS TEST

TEST. RP. CC. 005.2

ESD TEST

ESD / EOS S 11.11, FTMS 101-C, 4046 & ASTM-D257

TEClean LATEX GLOVES 树胶手套



DESCRIPTION

TEClean 9"/12" Class 100 and Class 10K Cleanroom Latex Gloves

MATERIAL

Natural Rubber Latex

EXTRACTABLE PROTEIN

Below 50 ug/g

DIMENSIONS

Glove Size	Palm width (mm)	Length (mm)
Extra - Small	55-75	min. 240 / 290
Small	70-90	min. 240 / 290
Medium	85 - 105	min. 240 / 290
Large	100 - 120	min. 240 / 290
Extra - Large	105 - 125	min. 240 / 290

PHYSICAL PROPERTIES

	Before Aging	After Aging
Tensile Strength (MPa)	Min. 21	Min. 16
Elongation (%)	Min. 700	Min. 500

CLEANLINESS TEST

TEST. RP. CC. 005.2

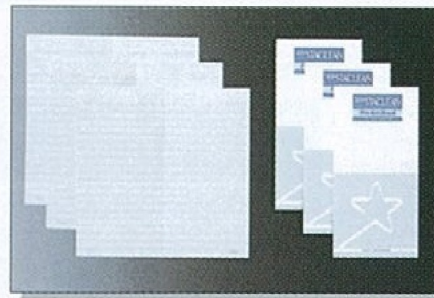
ESD TEST

EOS S 11.11, FTMS 101-C, 4046 & ASTM-D257

DUST-FREE STATIONERY 无尘文具



Paper



Pocket Pads



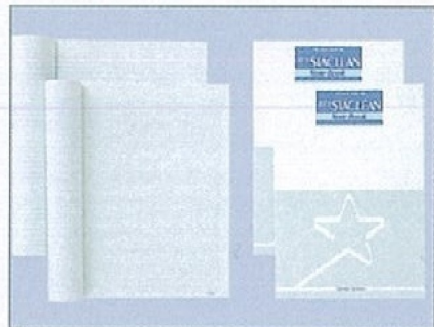
Forms



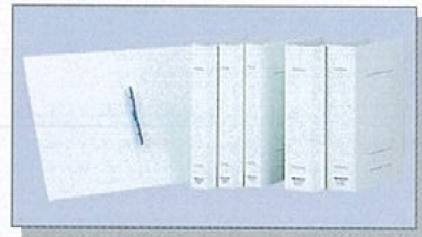
Index Cards



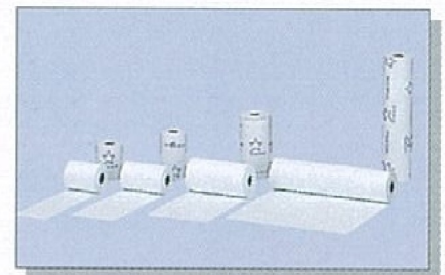
Memo Pads



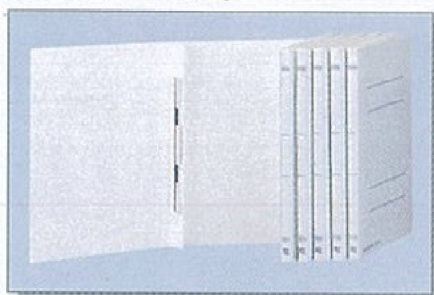
Notebooks



Binders



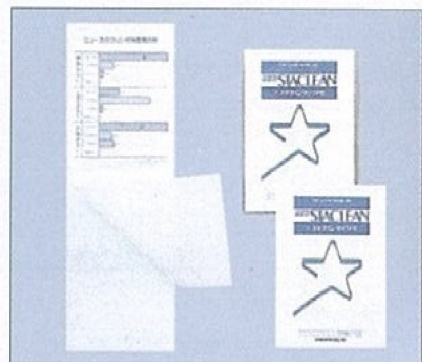
Thermal Paper



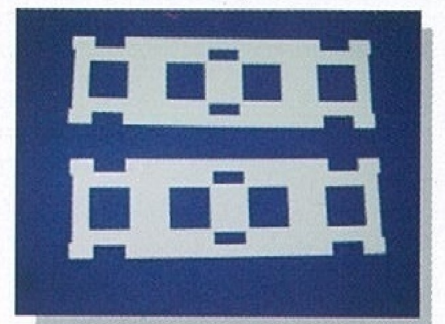
Files



Wafer Boxes



Tack Memos



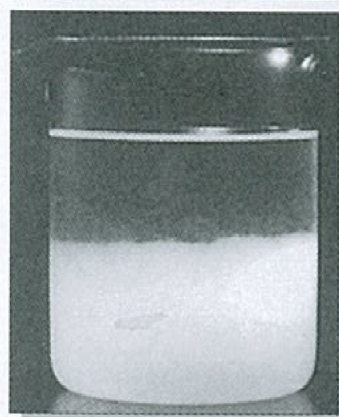
Lead Frame Separators

The No.1 Proven Dust-free Paper
The long wait for an ISO14000-compliant paper is over.
The New STACLEAN!

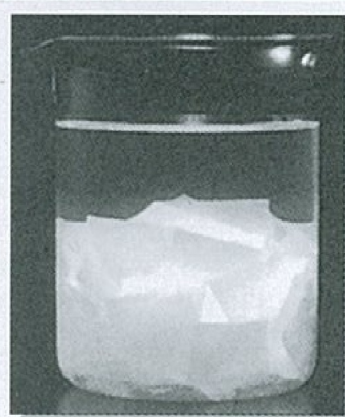
Grateful users around the world who have selected STACLEAN for its ability to maintain a clean environment are now welcoming the 'New STACLEAN,' which supports recycling management. This resin impregnated dust-free paper has achieved the "impossible" - an ability to be reproduced nearly as quickly as conventional paper. And its dust-control performance, the raison d'être of dust-free paper, remains just as strong as ever.

Low dust generation is now the norm.
"RC STACLEAN" gives birth to a new paper culture.

Dissolution Comparison Test



RC STACLEAN



Conventional resin-impregnated paper

TAPPI Standard Pulp Dissolution Test Results

Time (Unit: min.)	RC Staclean	Conventional resin-impregnated paper
5	△	X
10	○	X
15	○	X
30	○	X

(○ : Completely dissolved △ : Partially undissolved x : Undissolved)

* TAPPI = Technology of the American Pulp & Paper Industry)

** Testing method: After 40 grams of paper have been cut into 2 cm squares and placed in 2 liters of water at room temperature, the time it takes to dissolve completely is measured with a TAPPI standard pulp dissolution testing machine.

Dust-Generation Comparison

Dust measuring over 0.1 um (piece/CF)

	Rubbing Test	Friction Test	Tearing and Rubbing Test
Conventional good-quality paper	115,973	4,339	52,114
SC64RB	0	0	3
SC75RB	0	0	3
SC100RB	0	0	11

Dust measuring over 0.3 um (piece/CF)

	Rubbing Test	Friction Test	Tearing and Rubbing Test
Conventional good-quality paper	85,636	2,962	37,738
SC64RB	0	0	0
SC75RB	0	0	0
SC100RB	0	0	3

International Standard Dust-Generation Measurement Tests

"RC Staclean" led the way in implementing the international standard SEMI* paper dust-generation measurement tests in Japan.

Semiconductor Equipment Materials International SEMI NO.G67-0996

The results of all three types of tests employed - rubbing, friction, and tearing and rubbing tests - have demonstrated clearly that most particles measuring more than 0.1 microns are contained.

Dust-Generation Measurement Tests

Rubbing Test An A5 test sheet is rubbed in the hands once every 15 seconds for 200 seconds.

Friction Test Two A5 test sheets are placed front surface to back surface and rubbed together once every 10 seconds for 200 seconds.

Tearing and Rubbing Test An A5 test sheet is torn in four places (at 4 cm intervals) and rubbed for 180 seconds in the same way as in the rubbing test.

TEClean FINGER COTS 手指套

DESCRIPTION
TEClean Powderfree White Finger Cots

MATERIAL
100% Biodegradable Natural Rubber

EXTRACTABLE PROTEIN
N.D (Based on sensitivity limit of 20 ug/g)

STANDARD PACKING
10 gross / bag and 20 bags / carton

PHYSICAL PROPERTIES
Tensile Strength Above 25 MPa
Elongation Above 750 %

CLEANLINESS TEST
Powder ND
FTIR No silicone, DOP, amide, ester
Copper Strip No discoloration

DIMENSIONS

Size	Length (mm)	Width (mm)	Gauge (mm)	Ave. Weight (g)
Small	68 ± 4	24	0.10 + 0.03	0.39
Medium	68 ± 4	27	0.10 + 0.03	0.44
Large	68 ± 4	29	0.10 + 0.03	0.49
X - Large	68 ± 4	31	0.10 + 0.03	0.54

SPECIAL FEATURES

No powder used in manufacturing process
Free from allergenic sensitivity
Ultra low sulphur content
Ultra low chloride content
Passed test for bio-burden
Superior shelf life of up to 18 months



DESCRIPTION
TEClean Powderfree Pink Antistatic Finger Cots

MATERIAL
100% Biodegradable Natural Rubber

EXTRACTABLE PROTEIN
N.D (Based on sensitivity limit of 20 ug/g)

STANDARD PACKING
10 gross / bag and 20 bags / carton

PHYSICAL PROPERTIES
Tensile Strength Above 25 MPa
Elongation Above 750 %

CLEANLINESS TEST
Powder ND
FTIR No silicone, DOP, amide, ester
Copper Strip No discoloration

DIMENSIONS

Size	Length (mm)	Width (mm)	Gauge (mm)	Ave. Weight (g)
Small	68 ± 4	24	0.10 + 0.03	0.39
Medium	68 ± 4	27	0.10 + 0.03	0.44
Large	68 ± 4	29	0.10 + 0.03	0.49
X - Large	68 ± 4	31	0.10 + 0.03	0.54

ESD Test

SRM Tribo Decay
Max. 10¹¹ohm/sq Max. 50 volts Max. 2 sec.

SPECIAL FEATURES

No powder used in manufacturing process
Free from allergenic sensitivity
Ultra low sulphur content
Ultra low chloride content
Passed test for bio-burden
Superior shelf life of up to 18 months



DESCRIPTION
TEClean Powderfree Chlorinated Yellow Antistatic Finger Cots

MATERIAL
100% Biodegradable Natural Rubber

EXTRACTABLE PROTEIN
N.D (Based on sensitivity limit of 20 ug/g)

STANDARD PACKING
10 gross / bag and 20 bags / carton

PHYSICAL PROPERTIES
Tensile Strength Above 25 MPa
Elongation Above 750 %

CLEANLINESS TEST
Powder ND
FTIR No silicone, DOP, amide, ester
Copper Strip No discoloration

DIMENSIONS

Size	Length (mm)	Width (mm)	Gauge (mm)	Ave. Weight (g)
Small	68 ± 4	24	0.10 + 0.03	0.39
Medium	68 ± 4	27	0.10 + 0.03	0.44
Large	68 ± 4	29	0.10 + 0.03	0.49
X - Large	68 ± 4	31	0.10 + 0.03	0.54

ESD Test

SRM Tribo Decay
Max. 10¹¹ohm/sq Max. 50 volts Max. 2 sec.

SPECIAL FEATURES

No powder used in manufacturing process
Free from allergenic sensitivity
Ultra low sulphur content
Ultra low chloride content
Passed test for bio-burden
Superior shelf life of up to 18 months



DESCRIPTION
TEClean Powderfree Black Conductive Finger Cots

MATERIAL
100% Biodegradable Natural Rubber

EXTRACTABLE PROTEIN
N.D (Based on sensitivity limit of 20 ug/g)

STANDARD PACKING
10 gross / bag and 20 bags / carton

PHYSICAL PROPERTIES
Tensile Strength Above 25 MPa
Elongation Above 750 %

CLEANLINESS TEST
Powder ND
FTIR No silicone, DOP, amide, ester
Copper Strip No discoloration

DIMENSIONS

Size	Length (mm)	Width (mm)	Gauge (mm)	Ave. Weight (g)
Small	68 ± 4	24	0.10 + 0.03	0.39
Medium	68 ± 4	27	0.10 + 0.03	0.44
Large	68 ± 4	29	0.10 + 0.03	0.49
X - Large	68 ± 4	31	0.10 + 0.03	0.54

ESD Test

SRM Tribo Decay
Max. 10¹¹ohm/sq Max. 50 volts Max. 2 sec.

SPECIAL FEATURES

No powder used in manufacturing process
Free from allergenic sensitivity
Ultra low sulphur content
Ultra low chloride content
Passed test for bio-burden
Superior shelf life of up to 18 months



TEClean FINGER STALLS 手指套

DESCRIPTION TEClean Finger Stalls

Orange Finger Stall

unit : mm

Item	Large	Medium	Small
Inner Diameter	20 +/- 0.2	18 +/- 0.2	15 +/- 0.2
Overall Length	50 +/- 2	48 +/- 2	41 +/- 2
Thickness (Single Layer)	0.39 +/- 0.02	0.38 +/- 0.02	0.38 +/- 0.02
Ring Thickness	1.80 +/- 0.05	1.70 +/- 0.05	1.60 +/- 0.05

Natural Finger Stall

unit : mm

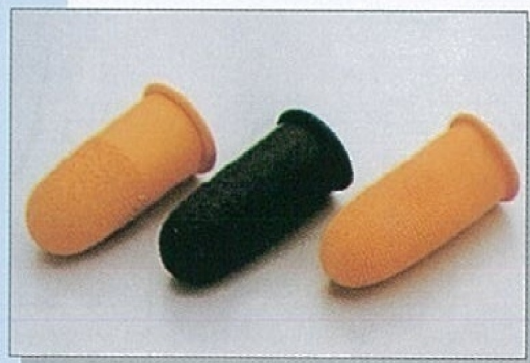
Item	Large	Medium	Small
Inner Diameter	20 +/- 0.2	18 +/- 0.2	15 +/- 0.2
Overall Length	57 +/- 2	61 +/- 2	47 +/- 2
Thickness (Single Layer)	0.35 +/- 0.02	0.33 +/- 0.02	0.33 +/- 0.02
Ring Thickness	1.30 +/- 0.05	1.70 +/- 0.05	1.60 +/- 0.05

Black Finger Stall

unit : mm

Item	Large	Medium	Small
Inner Diameter	20 +/- 0.2	18 +/- 0.2	15 +/- 0.2
Overall Length	50 +/- 2	48 +/- 2	41 +/- 2
Thickness (Single Layer)	0.39 +/- 0.02	0.39 +/- 0.02	0.38 +/- 0.02
Ring Thickness	1.80 +/- 0.05	1.80 +/- 0.05	1.60 +/- 0.05

ESD Test SRM Max. 10⁸ohm/cm²



TEClean VINYL GLOVES 塑胶手套

DESCRIPTION TEClean Class 100 Antistatic Vinyl Gloves

MATERIAL PVC

- Ideal for a variety of class 100 Cleanroom Use
- Powder and particulate free
- No skin irritants or Proteins
- Excellent tensile strength and elongation
- Rolled cuff for easier donning

PHYSICAL PROPERTIES

Tensile Strength (MPa)	Min. 5.5N
Elongation (%)	Min. 300

STANDARD PACKING

100pcs/antistatic bag
10 antistatic bags/carton

DIMENSIONS

Glove Size	Length	Thickness (mm)
Extra - Small	9.5" OR 11.5"	0.07 0.12
Small	9.5" OR 11.5"	0.07 0.12
Medium	9.5" OR 11.5"	0.07 0.12
Large	9.5" OR 11.5"	0.07 0.12
X - Large	9.5" OR 11.5"	0.07 0.12



TEClean ANTISTATIC GLOVES 防静电手套

Antistatic Gloves

- Polyester Conductive Yarn
- ESD-safe
- Can be laundered
- Ambidextrous
- Dust-free
- Sizes : S, M, L, XL

Antistatic Pu-Coated Gloves

- Polyester PU Embossing Cotton
- Excellent static control
- Can be laundered
- Ambidextrous
- Dust-free
- Sizes : S, M, L, XL

Conductive Gloves

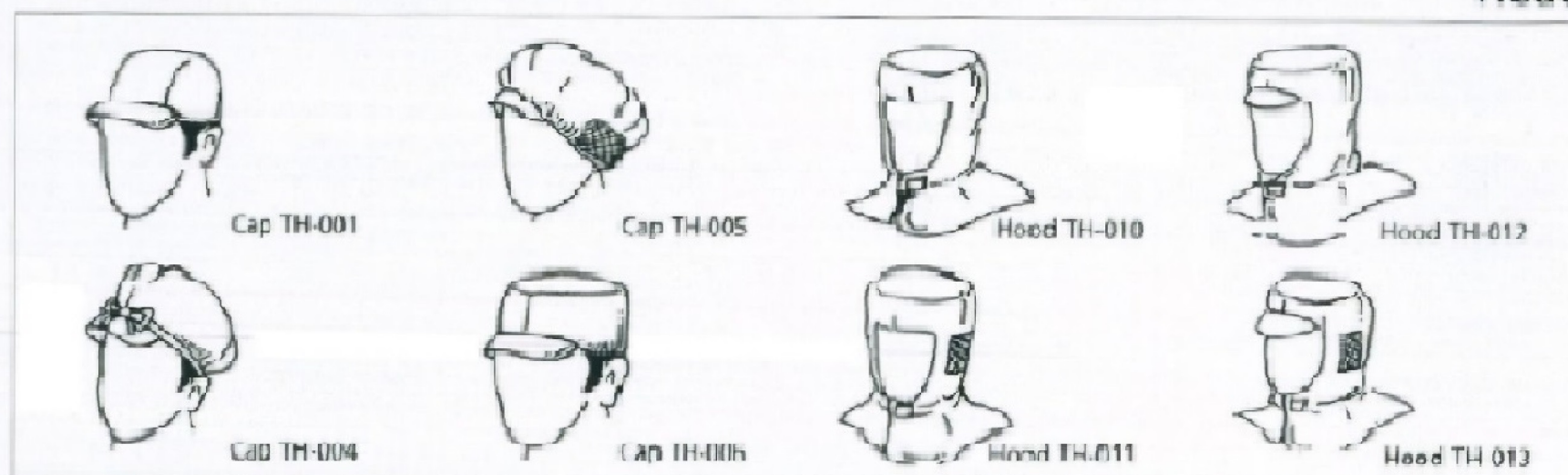
- Main Material : Nylon
- High Elasticity for prolonged use
- Effective control of ESD
- Sizes : S, M, L, XL

Top Fit and Palm Fit Gloves

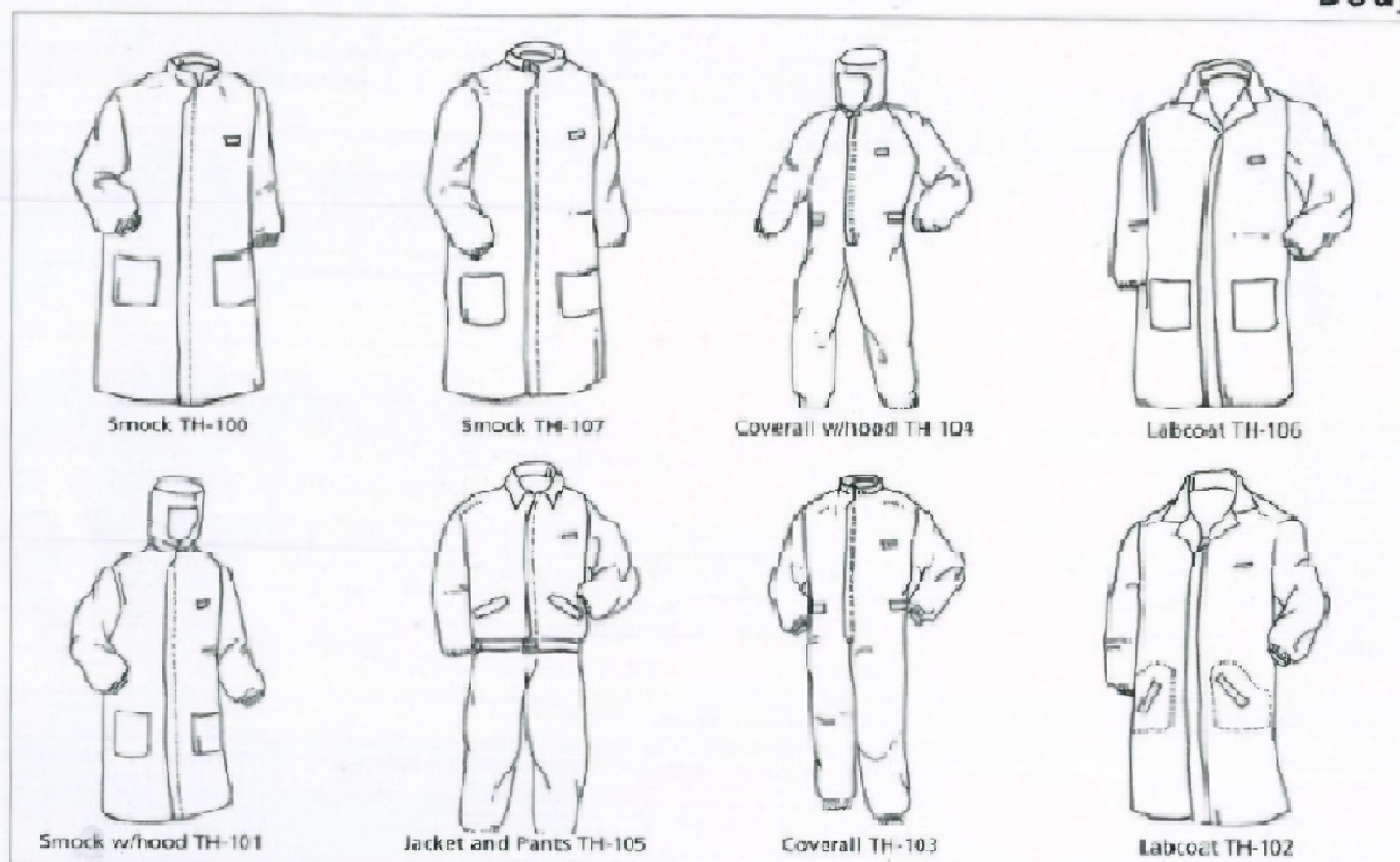
- Main Material : Nylon
- Finger tips : Urethane
- Anti-slip function
- Sizes : S, M, L, XL



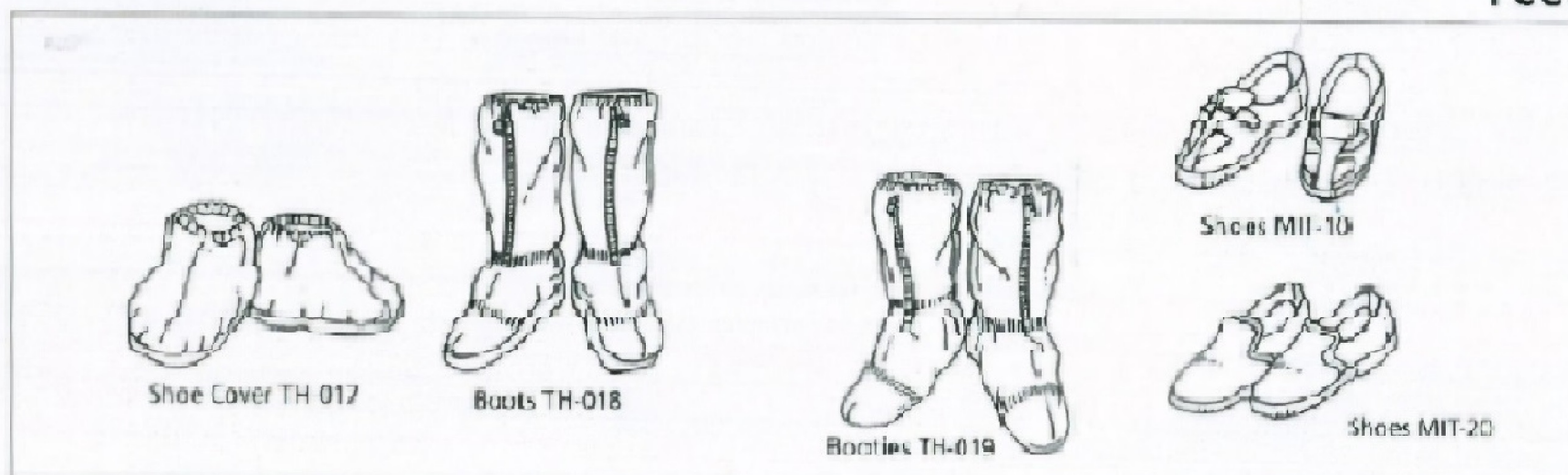
Head



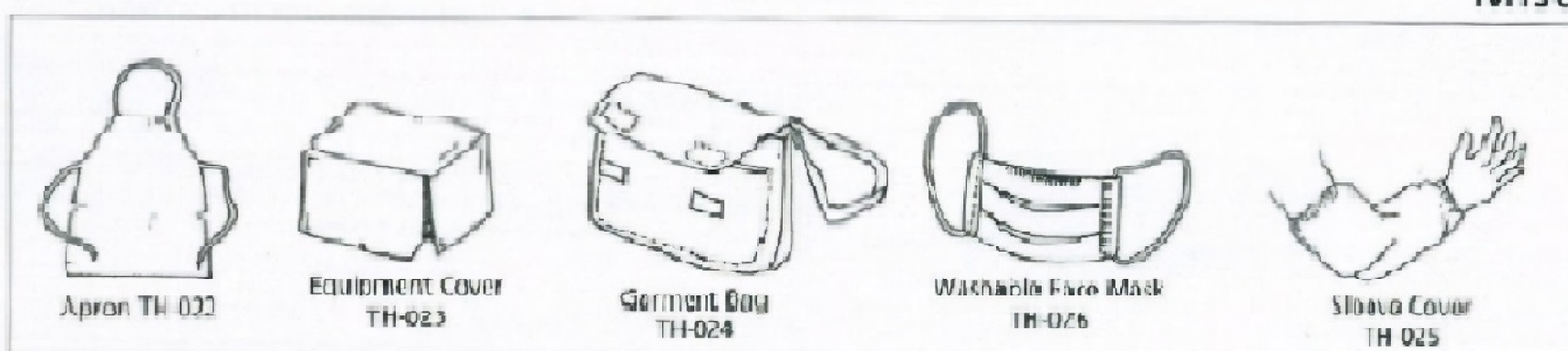
Body



Feet

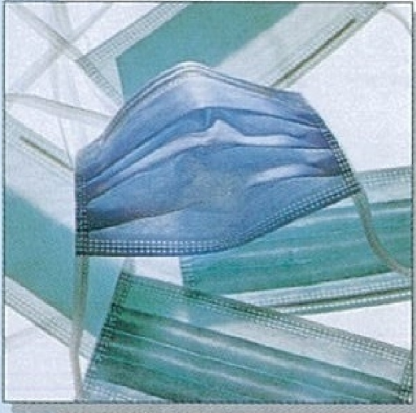


Misc

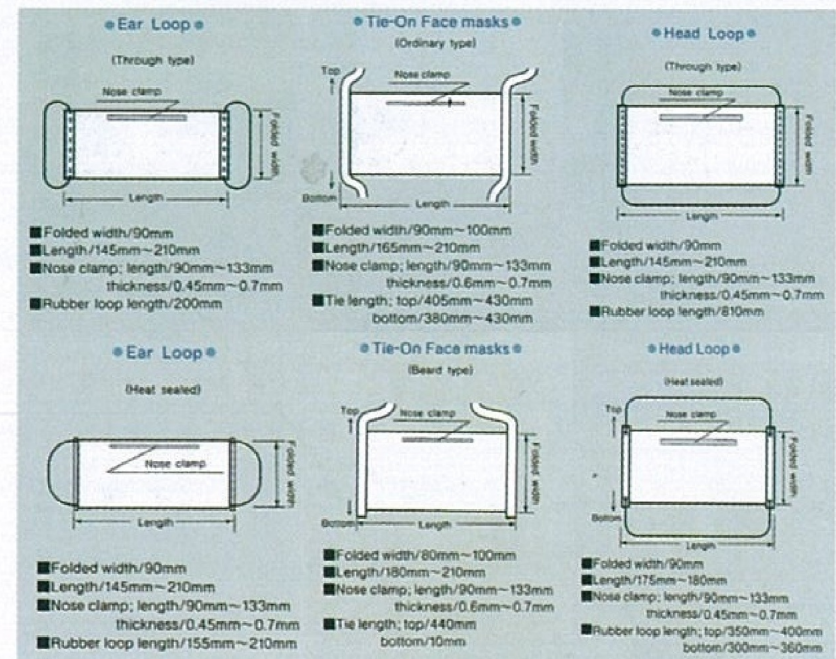


CLEANROOM ACCESSORIES 净化室附属耗用品

TEClean Cleanroom Face Masks



- Medical
- Cleanroom
- Dental
- Pollen Protection
- Food Isolation
- Industrial



Head Covers (Bouffant Caps)



Shoes / Boots



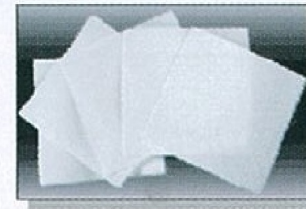
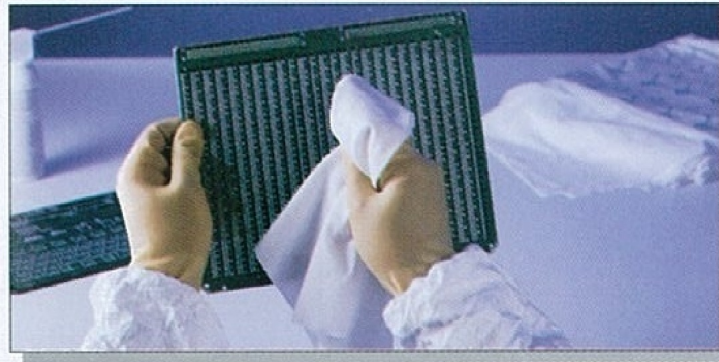
Sticky Mat



ESD-Safe Sandals/ Clean Slippers



COMPONENT CLEANING SUPPLIES 元件净洁材料



PVA Sponge



- TEClean
- Bencot
- Dusper
- Lymtech
- Anticon
- Contec
- Kanebo
- Teijin
- Toray
- Kimberly Clark
- Coventry
- Berkshire



Stencil Wiper
- PCBA



Swabs

- Cotton Tipped Applicators
- Foam Tipped Applicators
- Foam Over Cotton Tipped Applicators
- Chemical Resistant Applicators
- Anti-Static Applicators

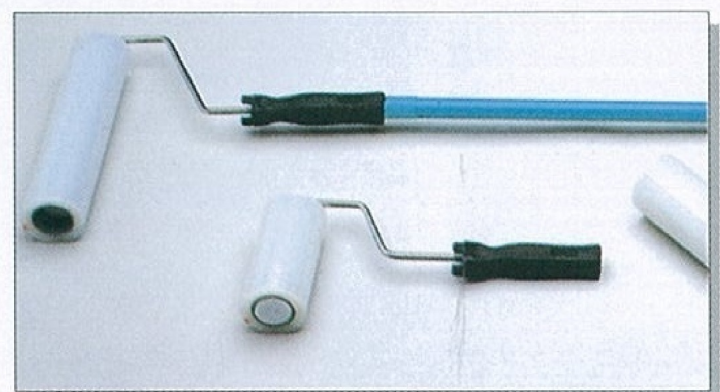
- Huby 340
- Berkshire
- Contec
- Lymtech
- Powell
- Coventry
- Wilshire

CLEANROOM CLEANING APPLIANCES & SUPPLIES 净化室整洁器具和有关用具



Cleanroom Vacuum Cleaner

- Nilfisk
- Karcher
- Minuteman
- Liberty



Cleanroom Sticky Roller

- Elep Clean

Category
Desktop Cleaning

Roller Size

80mm (W) x 10m (L)

160mm (W) x 20m (L)

Floor Cleaning

160mm (W) x 20m (L)

320mm (W) x 25m (L)

PCB Cleaning

80mm (W) x 10m (L)

160mm (W) x 20m (L)



Cleanroom Mops

- All stainless steel mop
- Picks up lint & dust easily
- Superb absorbency
- Roll-O-Matic
- Pertex
- Contec
- Berkshire
- Micronova

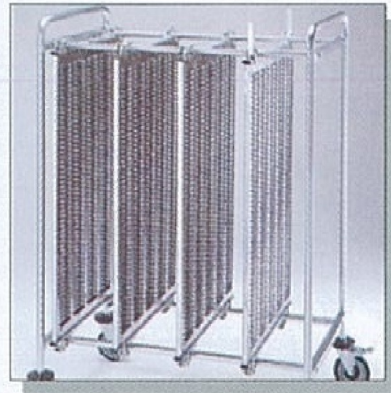


ESD/
Cleanroom
Brushes
• Gordon

CLEANROOM FURNITURE 净化室家私



- Fixed Position Stainless Steel Hangers
- Stainless Steel Hangers / Tube Type
- Clean Tables With Perforated Top
- Stainless Steel Benches
- Carts
- Two - & Three - Shelf Carts
- Conductive and Antistatic Chairs



CLEANROOM APPLIANCES 净化室仪器

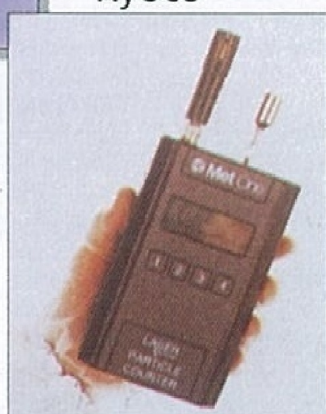
Ionizers

- Kasuga
- SSD
- Simco
- SCC
- ACL
- Trek



Particle Counters

- Sensitivity Level:
0.5 micron, 0.3 micron
- Rion
- PMS
- Ryoco
- Climet
- Met One



Surface Resistivity Meters

- Kasuga
- SSD
- Simco
- SCC
- ACL
- Trek



Voltmeters

- SCC
- Trek



Vacuum Handling Tool

- Pen-Vac



- ### Tweezers
- Ideal Tek
 - Fontex
 - Dumont
 - Dumoxel

GROUNDING SOLUTIONS 接地器材



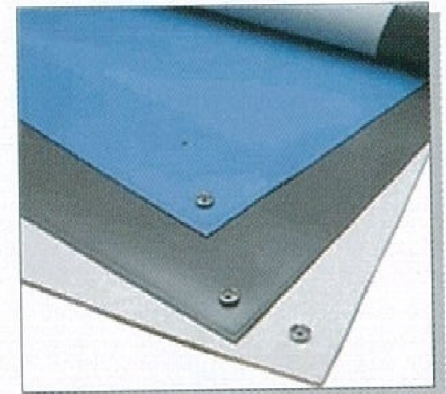
Wrist Strap / Tester

- Adjustable Wrist Strap & Coil Cord
- Disposable Type
- Adjustable Metal Wrist Band
- SCC • Kostat



Workstation / Table Mat and Floor Mat

- Table Mat with ground cord system + Wrist Strap / Coil Cord



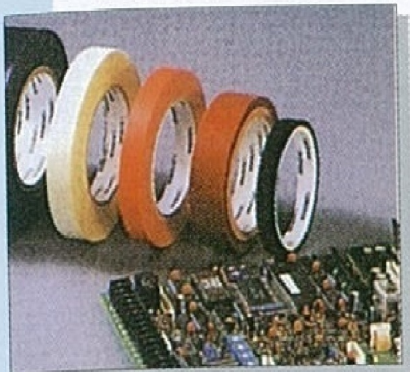
Heel Grounder

- Toe Grounder
- Cup Style Heel Grounder
- Standard Heel Grounder
- SCC • Kostat



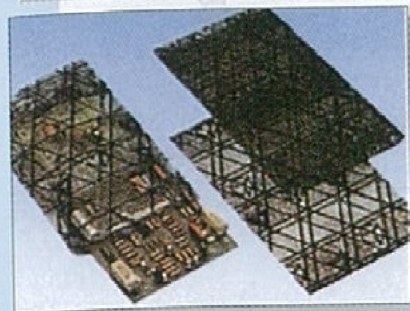
Conductive
Floor
Tiles

ELECTROSTATIC PROTECTION MATERIAL 防静电材料



Cleanroom Tapes

- Hot Air Levelling Tape
- Copper Conductive Type
- Polyester / Polyamide
- Silicon Tape
- Aluminium Conductive Tape
- Conductive Grid Tape



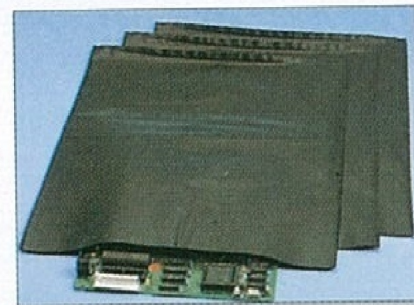
Conductive Grid Bag

- Antistatic Polyethylene + Conductive Ink



Moisture Barrier Bag

- Static Dissipative
- Excellent Moisture Barrier
- Protects against electromagnetic interference



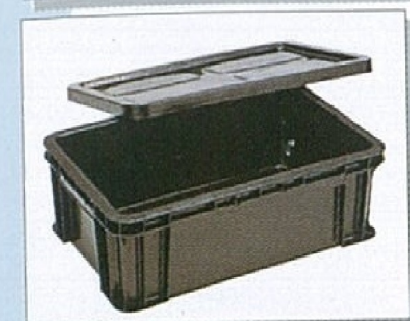
Conductive Black Bag

- Protects against electrostatic damage
- Ideal for transportation and storage purposes



Static Shielding Bag

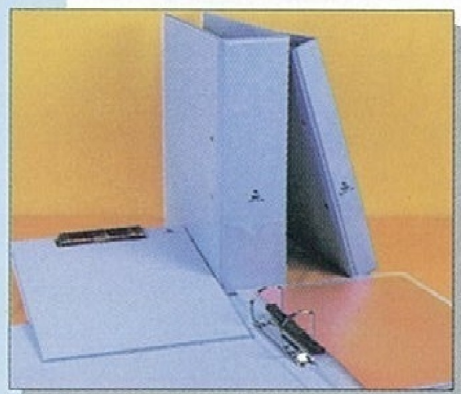
- Faraday cage effect of the metalized layer shields electronic devices from ESD & electrostatic fields.
- Polyester + Polyethylene



Conductive Boxes



ESD-Safe
Film



ESD-Safe File and Document Holder

The static dissipative file and document holder are used in static controlled area and cleanrooms to hold production traveller, process chart and engineering drawing for ESD sensitive area.

With surface resistivity of 10^8ohm/sq , it is used in PCBA, disk drive assembly and semi-conductor manufacturing line.

File:- The ESD file is available in blue colour and in 1", 2" and 3" file. Custom part number or logo can be printed for order of min 50 pcs.

Document Holder:- Customers' part number or logo. Available min 2000 pcs.

Stock available for document holder A3, A4, A5, A6, B4, B5 & etc.



ESD-Safe Badge Holder (Pouch) ESD Clip

Benefits and Features

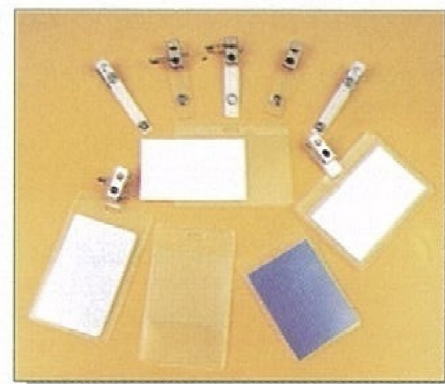
- Permanent anti-static character
- Insensitive to environmental conditions
- Custom size & design are available

ESD-Safe Sleaving

Tubing Specification

- Decay time at end of tube: 0.8 to 1.3 seconds
- Decay time at centre of tube: 0.5 to 1.2 seconds
- Float voltage observed: 0V to 3V
- Peel off voltage observed: 0V to 3V
- Surface Resistivity: $8 \times 10^8 \text{ohm/sq}$
- The tubing are free from silicone

The tubes were charged to 1000V and decayed off to 100V by using 3M 711 charge plated monitor and Desco charged plate analyser #A50268. Floating voltage was also observed along with decay time.



ESD-Safe Spiral Coil (ESD Wire Wrap)

Benefits and Features

- Permanent anti-static character
- Insensitive to environmental conditions
- Special design for cleanroom applications

Applications

- To wrap cables or wires inside cleanrooms
- To coil pens inside cleanrooms

ESD-Safe Air Tubing

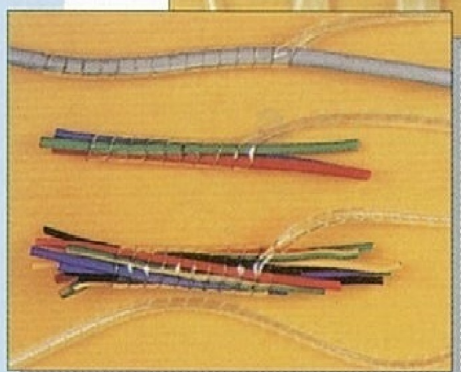
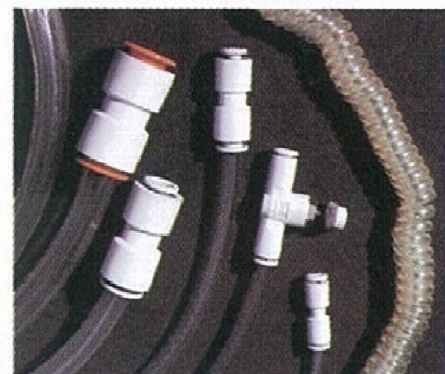
Tubing Specification

- Decay time at end of tube: 0.8 to 1.3 seconds
- Decay time at centre of tube: 0.5 to 1.2 seconds
- Float voltage observed: 0V to 3V
- Peel off voltage observed: 0V to 3V
- Surface Resistivity: $8 \times 10^8 \text{ohm/sq}$
- The tubings are free from silicone

The tubes were charged to 1000V and decayed off to 100V by using 3M 711 charge plated monitor and Desco charged plate analyser #A50268. Floating voltage was also observed along with decay time.

Applications

- Disc Drive Industries (MR & GMR Head)
- Semi - Conductor Industries
- Aerospace Industries



ESD-Safe Grounding Wire

- Decay time at end of tube: 0.8 to 1.3 seconds
- Decay time at centre of tube: 0.5 to 1.2 seconds
- Float voltage observed: 0V to 3V
- Peel off voltage observed: 0V to 3V
- Surface Resistivity: $8 \times 10^8 \text{ohm/sq}$
- The tubings are free from silicone

The tubes were charged to 1000V and decayed off to 100V by using 3M 711 charge plated monitor and Desco charged plate analyser #A50268. Floating voltage was also observed along with decay time.

Benefits and Features

- Permanent anti-static character
- Insensitive to environmental conditions
- Specially designed for cleanroom applications

Applications

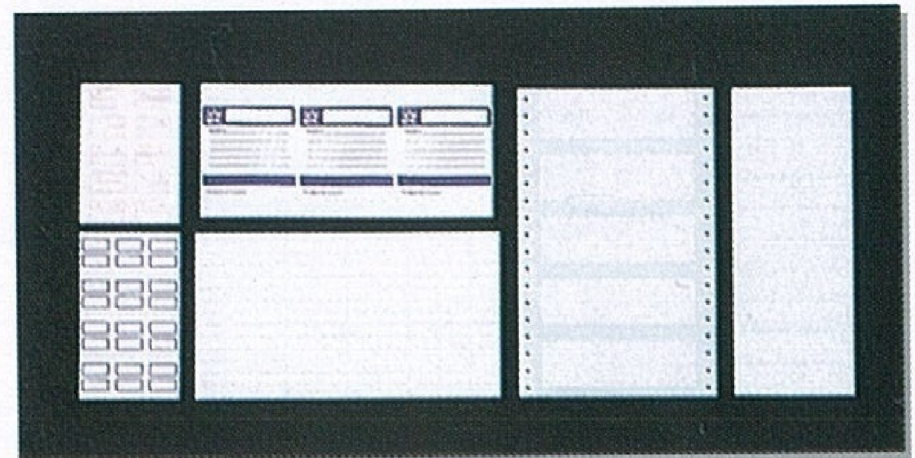
- Machine grounding
- Jig grounding



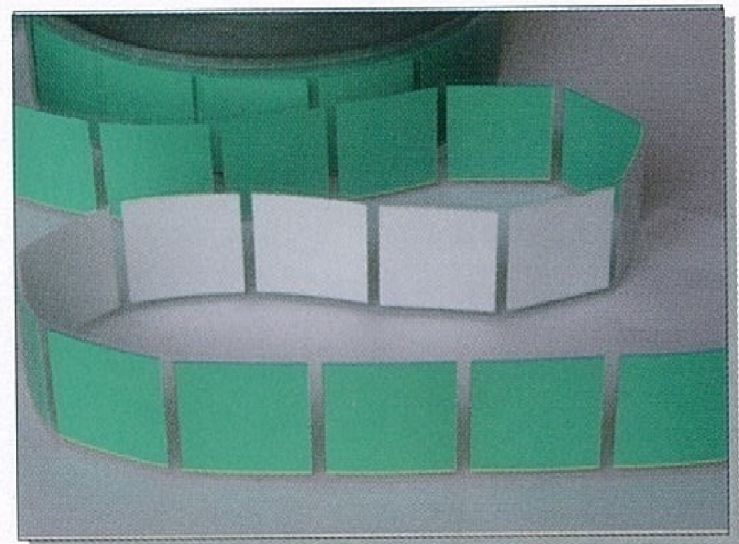
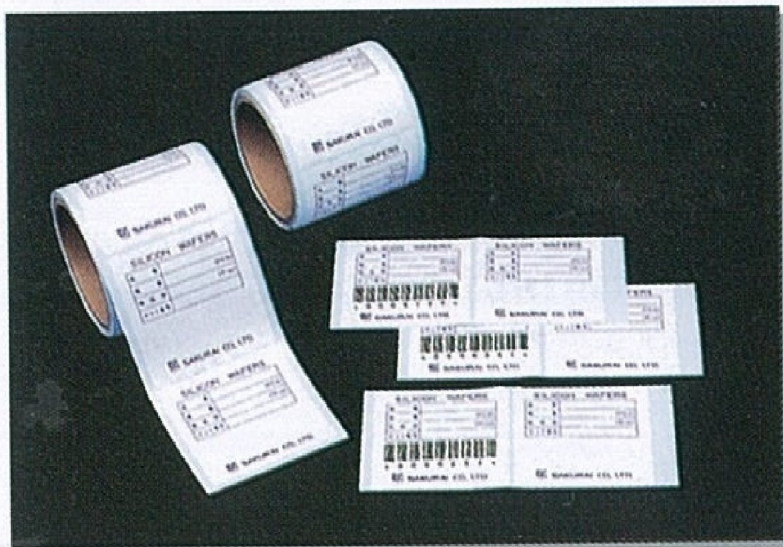
CLEANROOM / ESD CONTROL LABELS 净化室 / 防静电标签



ESD Control Labels and Signs



Cleanroom Labels



ESD CONTROL CHEMICALS 防静电剂



Antistatic Spray
• SCC



ESD Lotion
• SCC



ESD Mat
Cleaner
• SCC

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