Antistatic Products & Static Measuring Instrument

Recommended for the Chemical Industries

Contents

1) Products  
2) Instruments  
3) ISI Booklet  
4) New Products under developments  
5) Static Audit

KINETIC POLYMERS

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- Antistatic White Shoes
- Antistatic Shoe Covers
- Antistatic Heel Straps
- Antistatic Wrist Straps
- Antistatic Gloves
- Touch me Pad
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- Antistatic Transparent Bucket, White (14 Ltrs Capacity)
- Conductive Bucket, Black (14 Ltrs Capacity)
- Small Antistatic Transparent Bucket, White (5 Ltrs Capacity)
- Small Conductive Bucket, Black (5 Ltrs Capacity)
- Antistatic Mug, White (1 Ltr Capacity)
- Antistatic Mug, White (1 ½ Ltr Capacity)
- Conductive Mug, Black (1 Ltr Capacity)
- Conductive Mug, Black (1 ½ Ltr Capacity)
- Antistatic & Conductive Drums (5, 10, 20, 35, 50, 100 & 200 Ltrs Capacity)
- Antistatic Hose Pipe, HDPE (1” Dia)
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- Conductive Shoe Covers
- Seamless PU Auto – Clavable Shoes
- Permanent Washable Tacky Mat
Static Measuring Instruments

- Static Charge Meter (Digital)
- Surface Resistivity Meter (100V)
- Surface Resistivity Meter (100V) with Probes
- Human Body Static Voltage Checking Meter
- Wrist Strap Tester
- Wrist Strap & Footwear Tester
- Combo Tester
- Workstation Monitor
- Electro Static Alarm
- Fume Absorber
- Common Ground Point
- Ground Cord
- Bench Top Ionizer
- Over Head Ionizer (4 Fan)
Other Disposable Items

- Non Woven PP Disposable Caps
- Non Woven PP Disposable Shoe Covers
- Non Woven PP Face Masks
- PP / LDPE Disposable Garments
Others

- Antistatic Vinyl Chair With Arms
- Antistatic Vinyl Chair Without Arms
- Conductive Black Safety Shoes
- Antistatic Apron
- Antistatic Bunny Suit
- Antistatic / Conductive Drums (100 Ltrs)
- Antistatic / Conductive Pallets (800 x 1100 mm)
- Antistatic PVC Flooring
- Antistatic Filter Cloth
- Antistatic Can 20 Ltrs / 40 Ltrs Containers
- Conductive Trolley Wheels, 4”
- Antistatic / Conductive Sampler
- Antistatic / Conductive Hammer
- Antistatic / Conductive Scoop & Spatula
- Tacky Mat, 2’ x 3’ (1 Set = 30 Pcs)
- Antistatic Bags
- Conductive Bags
- Clean Room Wipes, 12” x 12”
- Flame Proof Torch 8040
- Epoxy Flooring
- Nitrile Gloves
- Moisture Barrier Bags
- ISI Booklet
- C.D Presentation on Static Electricity
- Static Electricity audit
- Clean Room Products / Clean Room Audit
### Technical Specification of Antistatic Apron

<table>
<thead>
<tr>
<th>Composition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrap (Polyester filament yarn)</td>
<td>Polyester filament yarn with Conductive filament yarn</td>
</tr>
<tr>
<td>Wrap (Polyester filament yarn)</td>
<td>75d / 36f</td>
</tr>
<tr>
<td>Wrap (Polyester filament yarn)</td>
<td>100d / 48f</td>
</tr>
<tr>
<td>Wrap (Conductive yarn)</td>
<td>97d / 25f</td>
</tr>
<tr>
<td>Wrap (Conductive yarn)</td>
<td>97d / 25f</td>
</tr>
<tr>
<td>Weaving Structure (twill)</td>
<td>2up / 1 down</td>
</tr>
<tr>
<td>Density (wrap x weft / inch)</td>
<td>192 x 92</td>
</tr>
<tr>
<td>Weight (gr / yd)</td>
<td>155</td>
</tr>
<tr>
<td>Conductive yarn’s interval</td>
<td>5 x 5 mm</td>
</tr>
<tr>
<td>Material</td>
<td>100 % Poly</td>
</tr>
<tr>
<td>Electro Conductive Yarn</td>
<td>Carbon</td>
</tr>
<tr>
<td>Air Permeability (cc / cm2 / sec)</td>
<td>9.3</td>
</tr>
<tr>
<td>Moisture Permeability (gr / m2 / 24hrs)</td>
<td>7,156</td>
</tr>
<tr>
<td>Tearing Strength (gr)</td>
<td>2,992</td>
</tr>
<tr>
<td>Weft</td>
<td>2,448</td>
</tr>
<tr>
<td>Acid Resistance (50 wash)</td>
<td>Good</td>
</tr>
<tr>
<td>Fractional Static Charge (V)</td>
<td>90</td>
</tr>
<tr>
<td>Wrap</td>
<td>110</td>
</tr>
<tr>
<td>Weft</td>
<td></td>
</tr>
<tr>
<td>Surface Resistivity (Ohm / Sq)</td>
<td>$10^3 - 10^7$</td>
</tr>
<tr>
<td>Particle Efficiency (%)</td>
<td>81</td>
</tr>
<tr>
<td>0.3</td>
<td>85</td>
</tr>
<tr>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>White / Blue</td>
</tr>
<tr>
<td>Uses – In Pharma area / clean room</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Normal apron made with cotton rich material are having lints. Which are not advisable in pharma / powder handling area.

Pure polyester cloth is one which can generate heavy static, because of insulating material. Hence not recommended in clean room / pharma area.
**Technical Specifications of Antistatic PVC Shoe**

- **Colour**: White
- **Sole**: Grey color, PVC Antistatic
- **Top**: Foamed leather, PVC.
- **Sole Resistance**: $\leq 10^9$ ohms
- **Sizes**: 7, 8, 9 & 10
- **Static Charge generation**: $\leq 200$ Volts.
- **Used in clean room & pharma area.**

**Note**: Normal shoes are made with insulating material, whose Surface resistance is $10^{12}$ ohms / sq. And they generate static voltage upto 5 KV on movement. No grounding of static charge is possible with normal shoes.
## Technical Specifications of Antistatic Shoe Cover

### Type: Disposable type (Yellow Colour)
- **Material**: P.E (Polyethylene)
- **Colour**: Yellow
- **Size**: Standard size of 8” x 15” to meet all sizes of shoes
- **Surface Resistance**: $10^{11-12}$ Ohms / Sq cm
- **Static Charge Generation**: $\leq 200$ Volts

### Type: Cloth type (White / Blue with grid)
- **Material**: Polyester
- **Colour**: White / Blue with grid
- **Size**: Standard size to meet all requirements
- **Type**: Reusable / Washable
- **Used**: Clean room compatible
Technical Specifications of Heel Strap

Designed for use in chemical shop floor with conductive heel and elastic fastener for use on any footwear worn by the operator. Provides grounding path for dissipation of Static Charges

**SPECIFICATION:**

Surface Resistivity

<table>
<thead>
<tr>
<th>Material</th>
<th>Resistivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductive Rubber</td>
<td>$10^4 – 10^6$ ohm/sq</td>
</tr>
<tr>
<td>Conductive Strip</td>
<td>$10^4 – 10^6$ ohm/sq</td>
</tr>
<tr>
<td>Surface to ground Resistance</td>
<td>&lt;50 Meg ohm</td>
</tr>
</tbody>
</table>

**Note:** Uses any shoes can be made antistatic using these heel straps. Simple to use and are quite economical. Ideal for visitor / normal employee.
Technical Specifications of Wrist Bands

SPECIFICATIONS:

Resistance : 1 Meg ohm
Resistor : ¼ watt, 1 Meg ohm carbon film
Insulation : PVC

WRIST BAND

22 CMS Conductive Fiber Woven elastic band with Velcro fasteners. Contact plate through 316 grade stainless steel, adjustable.

GROUNDING CORD:

Wire Dia : 3 mm +/-0.1mm
Coil Dia : 8 mm +/-10%
Insulation : PVC
Banana Plug Dia : 4 mm

Moulded contact Button,
Banana Plug + Crocodile Clip
Length : 2 Mtr in expanded state

Uses: To drain static voltage to the ground for Human being.
Technical Specifications of Antistatic Gloves

Material : Antistatic Gloves

A. Anti Static non-slip gloves

B. Made from 100% polyester, continuous less-linting filament knitted with carbon fiber and PVC dots on palm for better grip on precision components and parts,

C. PVC coating on palm side ensures better grip

D. Back of glove made from low linting polyester with carbon fiber for ESD protection

E. Excellent sweat absorbency and good ventilation
Technical Specification for Touch me Pad / Static Discharge Pad

All persons who accumulate static electricity because of the friction or induction should touch the pad for 10 Seconds, the accumulated static electricity will drain safely. On one end of the mat 10 mm button will be provided along with the grounding wire to be connected to the ground or earth to drain the static electricity safely.

Material : Static Dissipative Single Layer Synthetic Polymer
Surface resistance : $\leq 10^6$ Ohms (Black Colour)
Antistatic Property : Permanent
Static Generation : Nil
Rate of Decay : $\leq 10$ Sec
Resistance to Weather : Yes
Size : 1’ x 1’ (Thickness along with board will be 4.5 mm +/- 0.5 mm, with two clips to hang and wire to ground)
### Technical Specifications of Antistatic Buckets

- **Material**: Injection Moulded P.P., (Antistatic Bucket)
- **Top Dia**: 11”
- **Bottom Dia**: 7.5”
- **Height**: 10.5”
- **Capacity**: 14 Ltrs
- **Colour**: White
- **Surface Resistance**: $10^{11-12}$ Ohms
- **Static Voltage**: $\leq 200$ Volts
- **Temp Resistance**: 80°C
- **Chemical / Acid Resistance**: Yes
- **Uses to carry solvents / transfer for one place to other place.**

**Note**: Normal HDPE / PP Bucket generates 5 – 10 KV Static Voltage & has surface resistivity of $10^{13}$ Ohms / Sqcm
### Technical Specifications of Conductive Buckets

- **Material**: Injection Moulded P.P., (Conductive Bucket)
- **Top Dia**: 11”
- **Bottom Dia**: 7.5”
- **Height**: 10.5”
- **Capacity**: 14 Ltrs
- **Colour**: Black
- **Surface Resistance**: $10^5$ Ohms
- **Static Voltage**: $\leq 10$ Volts
- **Temp Resistance**: $80^\circ C$
- **Chemical / Acid Resistance**: Yes
- **Uses to carry solvents / transfer for one place to other place.**

**Note:** Normal HDPE / PP Bucket generates 5 – 10 KV Static Voltage & has surface resistivity of $10^{13}$ Ohms / Sqcm
**Technical Specifications of Conductive Buckets**

- **Material**: Injection Moulded P.P., (Conductive Bucket)
- **Top Dia**: 5.5”
- **Bottom Dia**: 8”
- **Height**: 7.5”
- **Capacity**: 5 Ltrs
- **Colour**: Black
- **Surface Resistance**: $10^5$ Ohms
- **Static Voltage**: $\leq$ 10 Volts
- **Temp Resistance**: $80^0$C
- **Chemical / Acid Resistance**: Yes
- **Uses to carry solvents / transfer for one place to other place.**

**Note**: Normal HDPE / PP Bucket generates 5 – 10 KV Static Voltage & has surface resistivity of $10^{13}$ Ohms / Sqcm
Technical Specifications of Antistatic Mug

- **Material**: Injection Moulded P.P., (Antistatic Mug)
- **Top Dia**: 5”
- **Bottom Dia**: 4.5”
- **Height**: 5.5”
- **Capacity**: 1 Ltr & 1 ½ Ltr
- **Colour**: White
- **Surface Resistance**: $10^{11-12}$ Ohms
- **Static Voltage**: ≤ 100 Volts
- **Temp Resistance**: 80°C
- **Chemical / Acid Resistance**: Yes
- **Uses to carry solvents / transfer for one place to other place.**

**Note:** Normal HDPE / PP Mug generates 5 – 10 KV Static Voltage & has surface resistivity of $10^{13}$ Ohms / Sqcm
Technical Specifications of Conductive Mug

- **Material**: Injection Moulded P.P., (Conductive Mug)
- **Top Dia**: 5”
- **Bottom Dia**: 4.5”
- **Height**: 5.5”
- **Capacity**: 1 Ltr & 1 ½ Ltr
- **Colour**: Black
- **Surface Resistance**: $10^5$ Ohms
- **Static Voltage**: ≤ 10 Volts
- **Temp Resistance**: 80°C
- **Chemical / Acid Resistance**: Yes
- **Uses to carry solvents / transfer for one place to other place.**

**Note:** Normal HDPE / PP Mug generates 5 – 10 KV Static Voltage & has surface resistivity of $10^{13}$ Ohms / Sqcm
# Technical Specification of Conductive Hose Pipe

- **Material**: Antistatic HDPE Hose Pipe
- **Colour**: Black
- **Solvent Resistance**: Very Good
- **Temperature Resistance**: 80°C
- **Antistatic Property**: Permanent
- **Diameter (I.D)**: 1” / 1¼” / 1½”
- **Chemical Resistance**: Almost all Acids, Alkali, Solvents at room temp
- **Surface Resistivity**: \( \leq 10^6 \) Ohms
- **Pressure**: 6 Kg / cm²
- **Static Voltage**: Can be grounded to drain static voltage

**Note**: Normal HDPE Pipes, which is also black in colour has Surface Resistance - \( \geq 10^{12} \) Ohms / Sq and can generate static voltage upto 10KV. Grounding of these pipes does not drain static voltage.
Technical Specifications for Conductive Hose Pipe Flexible

- Material - Antistatic Nitrile Rubber
- Drainage of static voltage – by grounding
- Size - I.D. 1” / 2”
- Colour - Black,
- Operating Temp - 80°C
- Resistance to acid/alkali/water solvent – Very Good
- Smooth surface on outside & inside
- Permanent antistatic & Conductive property
- Static Charge Generation - Nil
- Surface Resistance - $\leq 10^5$ Ohms / Sq cm

Note: Normal Rubber hose pipes are insulators, having Surface Resistivity of $10^{12}$ ohms / Sq and they generate static voltage and also grounding does not help to drain of static voltage.
Technical Specifications of Conductive Shoe Cover

- **Material**: P.E
- **Size**: Standard size suitable to all shoe size
- **Colour**: Black
- **Surface Resistance**: $10^4$ Ohms / Sq cm
- **Volume Resistivity**: $10^4$ Ohm – cm
- **Static Charge Generation**: Nil
Technical Specifications of Seamless PU Auto – Clavable Shoes

- Clean room / OT Shoes
- Antistatic Seamless Polyurethane Clogs
- Anti Skid
- Auto Clavable
- Colour - Blue / White
- More Comfortable
- Unisex
- All Sizes available
**Technical Specifications of Static Charge Meter (Digital), Model No. DSM-01**

Digital static meters are ideal instruments for measuring the magnitude and polarity of electrostatic potentials commonly encountered in development laboratories, electronic manufacturing areas, printing press, packing and production lines, etc.

The model DSM-01 is a light weight non-contacting static meter to measure static voltages with a polarity on objects & surfaces. The unit gives direct readings of electrostatic potentials on any surface, when held at a distance of 1 inch. However, virtually higher electrostatic potential can be measured by proportionately increasing the distance from the meter to the charged object. The instrument features large display with a very low drift circuit to give measurements. Moreover the model has a special feature of visual and audible “HAZARD” indication when it measures more than +/- 1 kV.

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Range</td>
<td>+/- 10kV @ 1 Inch,</td>
</tr>
<tr>
<td></td>
<td>+/- 20kV @ 2 Inch,</td>
</tr>
<tr>
<td></td>
<td>+/- 30kV @ 3 Inch.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+/-10%</td>
</tr>
<tr>
<td>Indication</td>
<td>3 ½ Digit LCD Display</td>
</tr>
<tr>
<td>Resolution</td>
<td>10 Volts</td>
</tr>
<tr>
<td>Over Range</td>
<td>On LCD symbol “▴” Indicates over range</td>
</tr>
<tr>
<td>Test Actuation</td>
<td>Press to Read</td>
</tr>
<tr>
<td>Power supply</td>
<td>9 Volt Battery</td>
</tr>
<tr>
<td>Low Battery</td>
<td>On LCD “BAT” indicates low battery</td>
</tr>
<tr>
<td>Calibration</td>
<td>Recommended every 12 months</td>
</tr>
<tr>
<td>Traceability</td>
<td>To National Standards</td>
</tr>
<tr>
<td>Dimensions</td>
<td>135 x 70 x 25 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>160 gms (with battery)</td>
</tr>
<tr>
<td>Warranty</td>
<td>12 Months</td>
</tr>
<tr>
<td>Accessories</td>
<td>Carry case</td>
</tr>
</tbody>
</table>

Note: The specifications mentioned in this datasheet are subject to change without prior notice due to our continuous research of product development. Buyer or User should decide the suitability of the product for the intended application.
Technical Specifications of Surface Resistivity Meter (100V), Model No.SRM-100V

The model SRM-100V is a precession, low cost, hand held, battery operated instrument designed to measure surface Resistivity, surface to ground and resistance between two points is accordance with EOS/ESD Association standard S-11.11.

The SRM-100V meter (Including external electrodes) is designed to make surface to ground and resistance between two point’s measurements.

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Range</td>
<td>$&lt;10^3$ to $&gt;10^{12}$ Ohms (or) Ohms/sq</td>
</tr>
<tr>
<td>Measurement Accuracy</td>
<td>Half decade</td>
</tr>
<tr>
<td>Resolution</td>
<td>One decade</td>
</tr>
<tr>
<td>Open Circuit voltage</td>
<td>100V ($\pm$ 5V)</td>
</tr>
<tr>
<td>Indication</td>
<td>Different Color LED’s</td>
</tr>
<tr>
<td>Test actuation</td>
<td>Press &amp; Hold to Test</td>
</tr>
<tr>
<td>Power Supply</td>
<td>9 Volt Battery</td>
</tr>
<tr>
<td>Low Battery Indication</td>
<td>Flashes by LOW – BATT Led</td>
</tr>
<tr>
<td>Dimensions</td>
<td>135 x 70 x 25 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>160 gms (with Battery)</td>
</tr>
<tr>
<td>Calibration</td>
<td>Recommended every 12 months</td>
</tr>
<tr>
<td>Traceability</td>
<td>To National Standards</td>
</tr>
<tr>
<td>Warranty</td>
<td>12 Months</td>
</tr>
<tr>
<td>Accessories</td>
<td>External cords &amp; Carry Case</td>
</tr>
<tr>
<td>Optional</td>
<td>External Electrodes.</td>
</tr>
</tbody>
</table>

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Technical Specifications of Surface Resistivity Meter (100V), Model No.SRM-100V

The model SRM-100V is a precession, low cost, hand held, battery operated instrument designed to measure surface Resistivity, surface to ground and resistance between two points in accordance with EOS/ESD Association standard S-11.11.

The SRM-100V meter (Including external electrodes) is designed to make surface to ground and resistance between two point’s measurements.

**SPECIFICATIONS:**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Range</td>
<td>&lt;10^3 to &gt;10^12 Ohms (or) Ohms/sq</td>
</tr>
<tr>
<td>Measurement Accuracy</td>
<td>Half decade</td>
</tr>
<tr>
<td>Resolution</td>
<td>One decade</td>
</tr>
<tr>
<td>Open Circuit voltage</td>
<td>100V (+/- 5V)</td>
</tr>
<tr>
<td>Indication</td>
<td>Different Color LED’s</td>
</tr>
<tr>
<td>Test actuation</td>
<td>Press &amp; Hold to Test</td>
</tr>
<tr>
<td>Power Supply</td>
<td>9 Volt Battery</td>
</tr>
<tr>
<td>Low Battery Indication</td>
<td>Flashes by LOW – BATT Led</td>
</tr>
<tr>
<td>Dimensions</td>
<td>135 x 70 x 25 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>160 gms (with Battery)</td>
</tr>
<tr>
<td>Calibration</td>
<td>Recommended every 12 months</td>
</tr>
<tr>
<td>Traceability</td>
<td>To National Standards</td>
</tr>
<tr>
<td>Warranty</td>
<td>12 Months</td>
</tr>
<tr>
<td>Accessories</td>
<td>External cords &amp; Carry Case</td>
</tr>
<tr>
<td>Optional</td>
<td>External Electrodes</td>
</tr>
</tbody>
</table>
OPTIONAL:

EXTERNAL ELECTRODES

External Testing Electrodes are used for measuring POINT – to – POINT resistance and SURFACE – to – GROUND resistance of floors, work surfaces, floor mats paint & floor fishes. It accepts 4 mm banana plug or 6 mm ring terminal for taking the connection. It is designed accordance with EOS/ESD Standards.

SPECIFICATIONS:

- **Weight**: 2.27 Kg (5 Pound) per probe
- **Contact Surface**: Conductive Rubber
- **Contact Area**: 63.5 mm (2.5 Inches)
- **Resistance**: < 500 Ohms
- **Hardness**: < 70 (in durometer)
- **Outer Sleeve**: Silicone Rubber
- **Handle**: Insulative Handle (Easy to carry)

Note: The specifications mentioned in this datasheet are subject to change without prior notice due to our continuous research of product development. Buyer or User should decide the suitability of the product for the intended application.
Technical Specifications of Human Body Static Voltage Checking Meter,  
Model No. PST - 01

One of the most common causes of electrostatic damage is the direct transfer of electrostatic charge from the human body. When one walks across a floor, an electrostatic charge accumulates on the body. Simple contact of a finger allows the body to discharge, possibly causing device to damage.

The Model PST-01 is designed to measure the static Voltages carried on a personnel. It is a precession instrument to verify whether Personnel entering an ESD safe area are carrying any hazardous charges on themselves.

It is very simple to use and only requires the personnel under test to touch the plate on the instrument and directly read the charge level in volts on the meter. Apart from the measuring the voltages, it can also be used to safely drain away the charges from the personnel. The instrument has a special feature of visual and audible “HAZARD” indication when it measures more than +/-100V. It is very quick and convenient method to check personnel voltages.

Moreover the tester will audit any potential static generator or dissipater, like. Wrist straps, heel grounders, toe straps, static safe shoes, floor mats, etc....
### PST-01 SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>+/- 1999V</td>
</tr>
<tr>
<td>Hazard Indication</td>
<td>Visual and audible alarm if voltage exceeds +/- 100V</td>
</tr>
<tr>
<td>Indications</td>
<td>3½ Digit LCD display with polarity indication</td>
</tr>
<tr>
<td>Resolution</td>
<td>1 Volt</td>
</tr>
<tr>
<td>Accuracy</td>
<td>+/- 10%</td>
</tr>
<tr>
<td>Test actuation</td>
<td>Touch To Test</td>
</tr>
<tr>
<td>Power supply</td>
<td>9V DC Adopter or 9V Battery</td>
</tr>
<tr>
<td>Low battery</td>
<td>Indicates at &lt; 7 V on Display</td>
</tr>
<tr>
<td>Dimensions</td>
<td>180 X 100 X 45 MM</td>
</tr>
<tr>
<td>Calibration</td>
<td>Recommended every 12 months</td>
</tr>
<tr>
<td>Traceability</td>
<td>To National Standards</td>
</tr>
<tr>
<td>Warranty</td>
<td>12 Months</td>
</tr>
<tr>
<td>Accessories</td>
<td>9V DC Adopter, Instruction board, Grounding cord &amp; Carry case.</td>
</tr>
</tbody>
</table>

Note: The specifications mentioned in this datasheet are subject to change without prior notice due to our continuous research of product development. Buyer or User should decide the suitability of the product for the intended application.
Technical Specifications of Wrist Strap Tester, (Model No. WST – 01e)

The potential for damage caused by a static charge build-up on personnel involved in the handling of semiconductor devices. ESD wrist strap is most commonly used protective devices which prevent the build-up of electrostatic charge on personnel. The random failure of wrist strap compromises the protection. Thus, it is important to test every wrist strap regularly.

The Model: WST-01e, wrist strap tester is a economy instrument that check the specified limit of all types of wrist straps under actual operating conditions with the strap on the wrist. It clearly indicates whether PASS or FAIL. The maximum wrist strap resistance should not be more than 10 Meg ohms. On the other end, the resistance should not be less than 0.75 Meg ohms as protection to the wearer from dangerous level of the voltage and current flow.

**SPECIFICATIONS:**

Range : Wrist strap 0.75 to 10 Meg ohms  
PASS Indication : Resistance Between 0.75 to 10 Meg Ohms  
FAIL Indication : Resistance below 0.75 or above 10 Meg Ohms  
Audible Alarm : Sounds for FAIL Indications  
Test actuation : By Press & Hold the Metal sensor plate.  
Accuracy : +/- 10%  
Power supply : 9 Volt Battery  
Dimensions : 135 x 70 x 25 mm  
Weight : 150 gms (with battery)  
Calibration : Recommended every 12 months  
Traceability : To National Standards  
Warranty : 12 Months  
Accessories : Carry Case.  
Optional : User Instruction Board.

The Optional USER INSTRUCTION BOARD can be wall mounted outside the ESD protected area.
Technical Specifications of Wrist Strap & Footwear Tester, (Model No. WSFT - 01)

The potential for damage caused by a static charge build-up on personnel involved in the handling of semiconductor devices. ESD wrist strap, heel strap, toestrap and foot wears are most commonly used protective devices which prevent the build-up of electrostatic charge on personnel. The random failure of wrist strap or foot wears compromises the protection. Thus, it is important to test every wrist strap / footwear regularly.

The Model: WSFT-01, wrist strap & footwear tester is a precession instrument that check the specified limit of all types of wrist straps, foot wears and other similar personnel grounding devices under actual operating conditions with the strap on the wrist or foot wear on the foot. It clearly indicates whether LOW-FAIL or PASS or HIGH-FAIL the maximum wrist strap resistance should not be more than 10 Meg ohms and foot wears resistance should not be more than 100 Meg ohms. On the other end, the resistance should not be less than 0.75 Meg ohms as protection to the wearer from dangerous level of the voltage and current flow.

The instrument circuits is specially designed for the drift less readings (i.e., it displays only one result accurately) and it is very quick and convenient method to check personnel groundings.

OPTIONAL: Customized resistance limits can be provided to meet special user requirements.
SPECIFICATIONS:

Range: Wrist strap 0.75 to 10 Meg ohms
      Foot Wear 0.75 to 100 Meg ohms
Range Selection: By Toggle Switch
Indications: LOW-FAIL (Indicates Less than 0.75 Meg Ohms)
             PASS (Indicates 0.75 to 10/100 Meg ohms)
             HIGH-FAIL (indicates More than 10/100 Meg Ohms)
             (Audible alarm for FAIL modes)
Test actuation: By Press & Hold the Metal sensor plate.
Accuracy: +/- 10%
Power supply: 9 Volt Battery
Battery Status: By dual color LED (Red-Low Bat & Green-Ok).
Dimensions: 135 x 70 x 25 mm
Weight: 150 gms (with battery)
Calibration: Recommended every 12 months
Traceability: To National Standards
Warranty: 12 Months
Accessories: Carry Case.
Optional: Foot Plate, User Instruction Board.

The Optional USER INSTRUCTION BOARD can be wall mounted outside the ESD protected area and Foot wears can be tested by connecting the stainless steel FOOT PLATE.
The potential for damage caused by a static charge build-up on personnel involved in the handling of semiconductor devices. ESD wrist strap, heel strap, toe-strap and foot wears are most commonly used protective devices which prevent the build-up of electrostatic charge on personnel. The random failure of wrist strap or foot wears compromises the protection. Thus, it is important to test every wrist strap / footwear regularly.

The CT-01 is a friendly user, precession engineered combination tester, and it measures the electrical resistance of LEFT FOOT, RIGHT FOOT and WRIST STRAP individually under actual operating conditions. The tester reduces the testing time by half, and offers the operator a visual and audible measurement of PASS or FAIL of personnel groundings before entering the EPA.

The tester has special circuits for drift less readings (i.e., it displays only one result accurately). Moreover the tester works with 9V DC adopter or 9V Battery. So, no need of charging or replacing the battery frequently. It is very quick and convenient method to check personnel groundings.

CT-01 SPECIFICATIONS:

Range : Wrist strap 0.75 to 10 Meg ohms
        Left footwear 0.75 to 100 Meg ohms
        Right footwear 0.75 to 100 Meg ohms

Indications : Pass - GREEN LED
              Low & High fail - RED LED with Buzzer sound

Test actuation : By press & hold the respective metal sensor plates

Accuracy : +/- 10%

Power supply : 9V DC Adopter or 9V Battery

Power supply status : By Dual Color LED.

Dimensions : 180 X 100 X 45 mm (Instrument size)
             485 x 380 mm (Foot plate size), 980 mm (Height)

Weight : 5.75 Kg (with foot plate)

Calibration : Recommended every 12 months

Traceability : To National Standards

Warranty : 12 Months only for Instrument

Accessories : 9V DC Adopter.

OPTIONAL : Customized resistance limits can be provided to meet special user requirements.
Technical Specifications of Combo Tester, (Model No. CT - 02)

The potential for damage caused by a static charge build-up on personnel involved in the handling of semiconductor devices. ESD wrist strap, heel strap, toe-strap and foot wear are most commonly used protective devices which prevent the build-up of electrostatic charge on personnel. The random failure of wrist strap or foot wear compromises the protection. Thus, it is important to test every wrist strap / footwear regularly.

The CT-02 is a friendly user, precession engineered combination tester, and it measures the electrical resistance of LEFT FOOT, RIGHT FOOT and WRIST STRAP individually under actual operating conditions. The tester reduces the testing time by half, and offers the operator a visual and audible measurement of PASS or FAIL of personnel groundings before. Moreover the tester has a special feature of open by release the ELECTROMAGNETIC LOCK on the door before entering the EPA.

The tester has special circuits for drift less readings (i.e., it displays only one result accurately). Tester works with 9V DC adopter or 9V Battery. So, no need of charging or replacing the battery frequently. It is very quick and convenient method to check personnel groundings.
CT-01 SPECIFICATIONS:

Range : Wrist strap 0.75 to 10 Meg ohms  
Left footwear 0.75 to 100 Meg ohms  
Right footwear 0.75 to 100 Meg ohms

Indications : Pass - GREEN LED  
Low & High fail - RED LED with Buzzer sound

Test actuation : By press & hold the respective metal sensor plates

Accuracy : +/- 10%

Power supply : 9V DC Adopter or 9V Battery

Power supply status : By Dual Color LED.

Dimensions : 180 X 100 X 45 mm (Instrument size)  
485 x 380 mm (Foot plate size), 980 mm (Height)

Weight : 5.75 Kg (with foot plate)

Calibration : Recommended every 12 months

Traceability : To National Standards

Warranty : 12 Months only for Instrument

Accessories : 9V DC Adopter.

OPTIONAL : Customized resistance limits can be provided to meet special user requirements.

DOOR ACCESS CONTROL SPECIFICATIONS:

Power supply : 12V / 1A DC Adopter

Power consumption : -

Lock release time : 3 to 15 second (Adjustable timer)

Operation : Entry by the COMBO TESTER  
Exit by the SWITCH

Accessories : 12V / 1A DC Adopter, Adjustable timer, Exit Switch and Connecting cords.

Warranty : 12 Months
Technical Specifications of Combo Tester Controlled Entry System, (Model No. CT - 03)

The potential for damage caused by a static charge build-up on personnel involved in the handling of semiconductor devices. ESD wrist strap, heel strap, toe-strap and foot wears are most commonly used protective devices which prevent the build-up of electrostatic charge on personnel. The random failure of wrist strap or foot wears compromises the protection. Thus, it is important to test every wrist strap / footwear regularly.

The model CT-03 Combo Tester Controlled Entry Systems is designed to control of personnel into ESD safe area by measuring foot wears or wrist strap resistance. If the measured resistance is within limits and access is approved, the turnstile unlocks permitting passage. Also the tester offers the operator a visual and audible measurement of PASS or FAIL of the personnel groundings. It is good security system for entry of personnel into the restricted ESD safe area.
CT-03 SPECIFICATIONS:

Range: Wrist strap 0.75 to 10 Meg ohms
       Left footwear 0.75 to 100 Meg ohms
       Right footwear 0.75 to 100 Meg ohms

Indications: Pass - GREEN LED
             Low & High fail - RED LED with Buzzer sound

Test actuation: By press & hold the respective metal sensor plates

Accuracy: +/- 10%

Power supply: 9V DC Adopter or 9V Battery

Power supply status: By Dual Color LED.

Dimensions: 180 X 100 X 45 mm (Instrument size)
            485 x 380 mm (Foot plate size), 980 mm (Height)

Weight: 5.75 Kg (with foot plate)

Calibration: Recommended every 12 months

Traceability: To National Standards

TURNSTILE SPECIFICATIONS:

Overall Dimensions: L-420 x B-630 x H-1020 mm

Weight: 40 Kg approx.

Material Finish: Stainless Steel or Mild Steel powder coated

Input Power: 230V AC, 50Hz

Power Consumption: 30 Watt max.

Tripod Release Time: 3 seconds

Lane indicator: It indicates lane direction & tripod status
               Green arrow mark – GO
               Red Cross mark – STOP

Operation: Entry by the COMBO TESTER
           Exit by the SWITCH

Warranty: 12 Months
Technical Specifications of Workstation Monitor (For One Operator),
(Model No. WSM - 01)

In the electronics semiconductor industry ESD protected tables are used, which
mainly consist of ESD mats or ESD laminates, and operators wear personnel
groundings devices of ESD wrist straps. Both the items are most important for
protection, and it is not possible to test the operators frequently in a day. As it will
compromise the protection at any time the ESD damage can occur.

The model WSM-01 is a precession instrument to continuously monitor and give the
indications by a visual & audible alarm to the operator of the ESD work surface
grounding connections and operator’s wrist straps connections simultaneously. It
does what which wrist strap & foot wear tester, surface resistivity meter, Common
Point Ground & earth bonding plug cannot do (i.e., continuous monitoring).

WRIST STRAP: This section continuously monitors the wrist strap to detect loss of
continuity between operator and monitor. Conditions such as broken coils cords
and improper contact with the skin are detected instantly to alert the operator. As
there is no resistance return path from the wrist strap, it uses the “capacitive AC
pulse principle” to check if the operator is adequately grounded.

WORK SURFACE / GND: This section continuously monitors the work surface
button to button resistance value, instrument to ground and work surface to ground
connections simultaneously. This is monitored by a DC Resistive principle and a
MAT/GND FAIL warning is given to the operator.

SPECIFICATIONS:

1. Wrist strap indications : Pass – Green LED
   Fail – Flashing Red LED
2. Mat/Gnd indications : Fail - Steady Red LED
   (Audible alarm For Fail modes)
3. Range : 10 Meg ohms
4. Accuracy : +/-10%
5. Input power : DC 12V @ 300mA
6. Construction : MS powder coated box with mounting brackets
7. Calibration : Recommended every 12 months
8. Traceability : To National Standards
9. Dimensions : 100 (L) x 60 (W) x 30 (H) mm
10. Weight : 200 gms
11. Warranty : One year
12. Accessories : Fixing clamp
Technical Specifications of Workstation Monitor (For Two Operator),
(Model No. WSM - 01)

In the electronics semiconductor industry ESD protected tables are used, which mainly consist of ESD mats or ESD laminates, and operators wear personnel groundings devices of ESD wrist straps. Both the items are most important for protection, and it is not possible to test the operators frequently in a day. As it will compromise the protection at any time the ESD damage can occur.

The model WSM-02 is a precession instrument to continuously monitor and give the indications by a visual & audible alarm to the operator of the ESD work surface grounding connections and operator’s wrist straps connections simultaneously. It does what which wrist strap & foot wear tester, surface resistivity meter, Common Point Ground & earth bonding plug cannot do (i.e., continuous monitoring).

WRIST STRAP: This section continuously monitors the wrist strap to detect loss of continuity between operator and monitor. Conditions such as broken coils cords and improper contact with the skin are detected instantly to alert the operator. As there is no resistance return path from the wrist strap, it uses the “capacitive AC pulse principle” to check if the operator is adequately grounded.

WORK SURFACE / GND: This section continuously monitors the work surface button to button resistance value, instrument to ground and work surface to ground connections simultaneously. This is monitored by a DC Resistive principle and a MAT/GND FAIL warning is given to the operator.
**SPECIFICATIONS:**

1. Wrist strap indications: Pass – Green LED  
   Fail – Flashing Red LED  
2. Mat/Gnd indications: Fail - Steady Red LED  
   (Audible alarm For Fail modes)  
3. Range: 10 Meg ohms  
4. Accuracy: +/-10%  
5. Input power: DC 12V @ 300mA  
6. Calibration: Recommended every 12 months  
7. Traceability: To National Standards  
8. Dimensions: 140 (L) x 110 (W) x 35 (H) mm  
9. Weight: 200 gms  
10. Warranty: One year  
11. Accessories: Fixing clamp  
12. Optional: 12V DC Adopter & Grounding Cords.
Technical Specifications of Electro Static Alarm (Model No. ESA-01)

The electrostatic alarm Model ESA-01 is a portable battery operated instrument, incorporating simple technology to indicate excessive charge accumulation in environments where ESD are detrimental to manufacturing process in the semiconductor and various ESD protected industries. The instrument can be kept in ‘ON’ for continuous monitoring of critical static safe area. Resetting the alarm is performed automatically.

OPERATION:

A static charge have the capability to produce electric field on any object, and the strength of the field at inversely at a distances from the charge, the electrostatic alarm responds this electric field, also more specifically it senses only charges in the electric field. So to detect a charge there should be a relative motion between the instrument and the charged body.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>9V Battery</td>
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<tr>
<td>Detection Voltage</td>
<td>+/- &gt;100V</td>
</tr>
<tr>
<td>Detection Method</td>
<td>Charge coupling by field interception</td>
</tr>
<tr>
<td>Range Selection</td>
<td>Auto ranging &amp; Auto Resetting</td>
</tr>
<tr>
<td>Indication</td>
<td>LED’s visual indication with audible sound</td>
</tr>
<tr>
<td>Dimensions</td>
<td>105 x 70 x 25 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>120 gms (with battery)</td>
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<tr>
<td>Warranty</td>
<td>12 Months</td>
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<tr>
<td>Accessories</td>
<td>Carry Case</td>
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</tbody>
</table>
Technical Specifications of Fume Absorber, (Model No. FA - 01)

Model FA-01 Fume absorber is a regular and anti-electronic type, portable, self standing, low noise unit which can be adjust height as well as angle for operators convenient to remove noxions fumes quickly.

SPECIFICATIONS:

- Power source : 230 V AC 50Hz
- Power consumption : 25 Watts
- Filter element : Carbon foam (Replaceable)
- Housing : M.S Powder coated
- Dimensions : 290 x 220 x 115 MM (With stand)
- Weight : 2.1 Kgs (Approx.)
- Warranty : 12 months
Technical Specifications of Common Ground Point, (Model No. CPG)

As per ANSI/ESD S20:20 all conductors including Personnel must be electrically connected and attached to a known ground.

Operators need a convenient method of grounding their wrist straps in the work stations. The Common Point Grounds are designed for the use of workstations to bring the grounding connections at the same potential.

Model: CPG-4P

![Image of CPG-4P]

Model: CPG-2P

![Image of CPG-2P]

FEATURES:

1. M.S powder coated is designed to mount under bench, saving work surface space.

2. Two meter grounding cable, at one end LUG provided for attachment to ground.
Technical Specifications of Ground Cord

Every Antistatic table mat and ESD Table top laminate requires grounding cord for grounding. Our GC-01 & GC-02 is specially designed for the grounding purpose.

MODEL: GC-01 (Features)

1). Two meter standard copper wire ground cord.
2). both sides 10mm female snaps for easy attachments to mats.

MODEL: GC-02 (Features)

1). Two meter standard copper wire ground cord.
2). Includes 10mm female snap for easy attachments to mats.
3). Built in 1 Meg Ohm, Provides a safe level of isolation from being grounding directly.
4). Lug / Crocodile clip can be provided at the end of cord fro attachment to earth.
Technical Specifications of Bench Top Ionizer, (Model No. BTI - 01)

Bench top ionizer are useful in neutralizing generated electrostatic charges, which may cause Electrostatic Discharge, Electrostatic Attraction, as well as preventing equipment latch-up and safety related shock. The model BTI-01 is a portable unit designed to neutralize static charges from insulator surfaces in assembly areas, wave soldering lines, laboratories, storage racks, test stations and packing areas.

The Ionizer works on the principle of high voltage corona discharge to produce the neutralizing ions, and it produces ions airflow that is rich in positive and negative ions directing the airflow on an object that has static electricity in order to neutralize the charges. It will be neutralized by attracting opposite polarity charges from the ionized air. It does what grounding cords, table mats & antistatic laminates cannot do (i.e., remove the static charges from insulator objects and surfaces). More over the bench top ionizer is designed with compact high voltage pulse circuitry for continuous trouble free operation.

**SPECIFICATIONS:**

- **Power supply**: 230V AC 50Hz
- **Power consumption**: 25 watts
- **Speed**: 2550 RPM
- **Air flow**: 2.24 m³/min
- **Noise**: 45 dBA
- **Static pressure**: 6.4 mm H2O
- **Ionization voltage**: 6 - 8 KV
- **Ion balance**: under +/- 100 V
- **Construction**: Powder coated MS cabinet
- **Dimensions in mm**: 225 x 190 x 110 (with stand & knob bolt)
- **Weight**: 2.7 kgs
- **Warranty**: One year
Technical Specifications of Over Head Ionizer, (Model No. OHI - 01)

Overhead Ionizer are useful in neutralizing generated electrostatic charges, which may cause Electrostatic Discharge, Electrostatic Attraction, as well as preventing equipment latch-up and safety related shock. The model OHI-4F is overhead unit designed to neutralize static charges from insulator surfaces in assembly areas, wave soldering lines, laboratories, storage racks, test stations and packing areas. The unit can be conveniently hung over the work place and the four fans covers larger area to neutralize the charges.

The overhead Ionizer works on the principle of high voltage corona discharge to produce the neutralizing ions, and it produces ions airflow that is rich in positive and negative ions directing the airflow on an object that has static electricity in order to neutralize the charges. It will be neutralized by attracting opposite polarity charges from the ionized air. More over the overhead Ionizer is designed with compact high voltage pulse circuitry for continuous trouble free operation.

SPECIFICATIONS:

- **Power supply**: 230V AC 50Hz
- **Power consumption**: 100 watts
- **Speed**: 2550 RPM
- **Air flow**: 2.24 m³/min
- **Noise**: 55 dBA
- **Static pressure**: 6.4 mm H2O
- **Ionization voltage**: 6 - 8 KV
- **Ion balance**: under +/- 100 V
- **Construction**: Powder coated MS cabinet
- **Dimensions in mm**: 1095 x 165 x 85 mm
- **Weight**: 7.5 Kg (appx.)
- **Warranty**: One year
Technical Specification of Tanker Ground Monitor (Model: TGM-100)

The TGM-100 provides positive verification of static ground connection on a wide range of industrial plant equipment, including tankers trucks, railcars, drums, containers and other conductive equipments.

Whenever flammable liquids or powders are transferred, or whenever there is a risk of conductive plant items becoming isolated from ground within hazardous locations, effective grounding and bonding is necessary to ensure safe dissipation of static electricity to prevent fires and explosions which can be ignited by static.

When connected to a tanker truck or other conductive equipment, the monitoring circuit ground the equipment and verifies a low resistance connection between the equipment and ground. Good connection is confirmed by an indicator light and the relay is energized (switch contact) for controlling the other drives like motors.

FEATURES:

1. Easy to install, operate, maintain.
2. Confirms safe, low-resistance static dissipation path from tanker, drum etc. to designated ground point.

TECHNICAL DATA:

1. Input Voltage : 230V AC 50Hz.
2. Relay contractor : 230V / 5A Max.
3. Enclosure : EX-d AS PER IS : 2148/81
4. Protection : IP-65 AS PER IS: 13947 (PART-I)-93
5. Area Classification : Div-I Gas group IIA & IIB AS PER IS : 2148/81
6. Material of construction : Cast aluminium alloy LM-6
7. Gasket : Endless moulded neoprene
8. Mounting : Hole Ø8.5mm – 4 Nos.
10. Weight : 3.5 Kgs (Approx.)
Technical Specification of Tanker Ground Monitor, (Model No. TGM-200)

The TGM-200 provides positive verification of static ground connection on a wide range of industrial plant equipment, including tankers trucks, railcars, drums, containers and other conductive equipments.

Whenever flammable liquids or powders are transferred, or whenever there is a risk of conductive plant items becoming isolated from ground within hazardous locations, effective grounding and bonding is necessary to ensure safe dissipation of static electricity to prevent fires and explosions which can be ignited by static.

When connected to a tanker truck or other conductive equipment, the monitoring circuit ground the equipment and verifies a low resistance connection between the equipment and ground. Good connection is confirmed by an indicator light and the relay is energized (switch contact) for controlling the other drives like motors.

**FEATURES:**

1. Easy to install, operate, maintain
2. Confirms safe, low-resistance static dissipation path from tanker, drum etc. to designated ground point.

**TECHNICAL DATA:**

1. Input Voltage : 230V AC 50Hz.
2. Relay contractor : 230V / 5A Max.
3. Enclosure : EX-d AS PER IS : 2148/81
4. Protection : IP-65 AS PER IS: 13947 (PART-I)-93
5. Area Classification : Div-I Gas group IIA & IIB AS PER IS : 2148/81
6. Material of construction : Cast aluminium alloy LM-6
7. Gasket : Endless moulded neoprene
9. Weight : 5.5 Kgs (Approx.)
Technical Specification of Non Woven PP Disposable Head Caps

- **Material**: PP Non Woven
- **Colour**: Blue
- **Size**: Standard Size, Suitable for all male / female

Technical Specification of Non Woven PP Face Masks

- **Material**: Non woven Fabric / Non Toxic 2 and 3 – Ply Non woven surgeon face mask
- **Capability**: Disposable and Soft
- **Colour**: Blue / Green
- **Type**: Tie / Ear Loop

Technical Specification of PP / LDPE Disposable Garments

- **Material**: P.E
- **Colour**: Transparent
- **Size**: Standard size suitable for all
- **Type**: Disposable
Technical Specification of Antistatic Vinyl Chair

ESD safe chair is essentially designed for discharging the accumulated electrical charges for the operator during critical electronic assembly.

- Height Adjustable
- Without Arms
- Seat Size: 18” x 18”
- Back Rest Size: 17” x 19”
- Seat height from the floor min: 19”
- Seat height from the floor max: 24”
- Height of the Handle Adjustable maximum: 12”
- Height of the Handle Adjustable minimum: 9”
- Seat and backrest upholstered with ESD PVC leather which is low in maintenance and clean
- Colour of seat and backrest – black
- Seat type: Smooth revolving
- Cushion: 2” seat and backrest
- Structure of chair: Tubular M.S. with chrome plating
- Chair base: Chrome plated 5 stars M.S. Base with 1 ESD Castor & 4 Normal castors. Drag included in center of base.
- Height adjustable seat: Using Hydraulic Mechanism
- Tilting back seat: The back can be locked in vertical positioning and can be tilted by unlocking.

Electrical Properties:

1). Seat & Backrest Surface Point to Point surface resistance: < 10⁷ Ohms
2). Seat to Castor and Seat to Chair Base Grounding chain resistance: < 10⁷ Ohms

- Antistatic Chair: Surface Resistivity of seat & back to the Ground 10⁶ – 10⁸ Ohms
- Meets the ANSI ESD S20.20-2007 and EIA 625 Standards
Technical Specification of Antistatic Vinyl Chair

ESD safe chair is essentially designed for discharging the accumulated electrical charges for the operator during critical electronic assembly.

- Height Adjustable
- With Arms
- Seat Size: 18” x 18”
- Back Rest Size: 17” x 19”
- Seat height from the floor min: 19”
- Seat height from the floor max: 24”
- Height of the Handle Adjustable maximum: 12”
- Height of the Handle Adjustable minimum: 9”
- Seat and backrest upholstered with ESD PVC leather which is low in maintenance and clean
- Colour of seat and backrest – black
- Seat type: Smooth revolving
- Cushion: 2” seat and backrest
- Structure of chair: Tubular M.S. with chrome plating
- Chair base: Chrome plated 5 stars M.S.Base with 1 ESD Castor & 4 Normal castors. Drag included in center of base.
- Height adjustable seat: Using Hydraulic Mechanism
- Tilting back seat: The back can be locked in vertical positioning and can be tilted by unlocking.

Electrical Properties:

1). Seat & Backrest Surface Point to Point surface resistance: < 10^7 Ohms
2). Seat to Castor and Seat to Chair Base Grounding chain resistance: < 10^7 Ohms

- Antistatic Chair: Surface Resistivity of seat & back to the Ground 10^6 – 10^8 Ohms
- Meets the ANSI ESD S20.20-2007 and EIA 625 Standards
Technical Specifications of Conductive Leather Shoes

- **Sole**: ESD Safe Rubber
- **Top**: Leather
- **Resistance of the Sole**: $10^6$ ohms
- **Resistance to ground**: $10^6$ ohms
- **Colour**: Black
- **Toe**: Steel toe / Fiber toe
- **Sizes**: 7, 8, 9 & 10.
- **Slip on & Lace type, both models available.**
- **Static Charge generation**: Nil
- **Used in chemical industries to drain body static voltage.**

**Note**: Normal shoes are insulator, these are not recommended as they don’t drain static voltage from human body.
Technical Specifications of PE Conductive Drum

- **Capacity**: 100 Ltrs
- **Material**: PE in Conductive Range as per STEC – 7 / BS – 2050
- **Dimensions**: Top Open Dia 31 cm x Height 65 cm (Approximate) Bottom Dia 41 cm
- **Colour**: Black
- **Surface Resistance**: ≤ 50 Kilo Ohms
- **Volume Resistance**: ≤ 50 Kilo Ohms
- **Static Charge Generation**: Nil
- **Antistatic Properties**: Permanent

**Uses**: To carry liquid / powder and can easily drain static voltage when grounded.
### Technical Specification of Conductive Drum

- **Capacity**: 20 Ltrs
- **Height**: 425 mm +/- 25 mm
- **Opening dia**: 200 mm +/- 25 mm
- **Bottom dia**: 280 mm +/- 25 mm
- **Neck height**: 75 mm +/- 10 mm
- **Color**: Black
- **Surface Resistivity**: ≤ 50 K Ω
- **Volume Resistance**: ≤ 50 K Ω

Uses: To carry / store various solvents and can easily drain static voltage when grounded.
### Technical Specification of Conductive Drum

- **Capacity**: 40 Ltrs
- **Height**: 600 mm
- **Opening dia**: 200 mm
- **Bottom dia**: 320 mm
- **Neck height**: 75 mm
- **Color**: Black
- **Surface Resistivity**: \( \leq 50 \text{ K } \Omega \)
- **Volume Resistance**: \( \leq 50 \text{ K } \Omega \)

**Uses:** To carry / store various solvents and can easily drain static voltage when grounded.
Technical Specifications of ESD Pallets

- **Material**: Antistatic Conductive Plastic
- **Size**: 800 x 1100 mm
- **Thickness**: 150 mm
- **Surface Resistance**: $< 10^9$ Ohms
- **Load Bearing Capacity**: $\geq 750$ Kgs
**Technical Specification of Antistatic PVC 3 Layer Mat**

1. **Material**: Homogeneous Antistatic composition with black Conductive layer sandwiched between Two antistatic layers.

2. **Thickness**: 2 mm ± 0.1mm

3. **Sound Reduction factor**: 3 db for 2 mm thickness

4. **Inflammability**: Self-extinguishing.

5. **Water absorption**: At room temperature for 24 hours is Less than 0.1%

6. **Colour**: Blue / Grey

**ELECTRICAL PROPERTIES:**

1). **Surface Resistivity**: $10^7$–$10^9$ ohms/sq.

2). **Decay Time**: Less than 2 seconds

**Uses:** For clean room and other area to drain static voltage for human being and trolleys etc.,
Technical Specifications of Conductive Wheel

- Colour: Black
- Material: Conductive Polymer
- Diameter: 6” x 1 ½” With bushing bearing mm
- Density: $1.2 +/− 0.1$ gms / cm$^3$
- Surface Resistance: $\leq 10^6$ Ohms
- Volume Resistance: $\leq 10^6$ Ohms - Cm
- Static Generation: Nil
- Antistatic Properties: Permanent
- Load bearing capacity: 500 Kgs for 4 Wheels
- Excellent abrasion, excellent chemical resistance and can withstand till 100°C
- Used for trolley wheels
- Other sizes like 3”, 5”, 6” & 8” are also available.
- These wheels are essential for the trolley to ground and drain out static voltage generated during the movement.

Additional features: Self lubricating properties
### Technical Specifications of Antistatic Sampler

- **Material**: HDPE
- **Colour**: Black
- **Type**: Permanent Antistatic
- **Temp. Resistance**: 80°C
- **Size**: 2 mtr length
- **Sampler size**: 50 ml capacity
- **Surface Resistance**: $10^6$ Ohms
- **Static Charge Generation**: $\leq 20$ Volts

**Uses**: Used to take sampler from reactors can be used for both SS & GLS type reactors.

**Note**: Normal sampler are made with SS are not recommended in GLS & PVC grey colour are insulators, which generates static electricity and has surface resistance $\geq 10^{12}$ ohms / sq cm
Technical Specifications for Conductive Hammer

- Diameter of the Handle: 25 +/- 2 mm
- Length of the Handle: 250 +/- 10 mm
- Diameter of the top portion of the hammer: 50 +/- 5 mm
- Length of the top portion of the hammer: 100 +/- 10 mm
- Colour: Black
- ESD Property: Permanent
- Resistance to acid / alkali
- Temperature: 20\(^\circ\) C to 80\(^\circ\) C
- Surface Resistance: \(\leq 10^8\) Ohms
- Static Generation: Nil
- Ideal substitute for metal hammer.
Technical Specifications of Conductive Scoop

- **Material**: Antistatic PP
- **Colour**: Natural / Semi Transparent / Black
- **Surface Resistance**: $10^{11}$ Ohms
- **Static Generation**: $\leq 200$ Volts

![Conductive Scoop Image]

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**Kinetic Polymers**
D-13/2, Phase – 1, Road No : 3, IDA, Jeedimetla, Hyderabad – 500 055.
Phone NO : 040 – 65278344, 65408277, Tele Fax No : 040 – 23093957
E-Mail: kineticpolymers@gmail.com, Website: www.kineticpolymers.com
Technical Specifications of Conductive Spatula

- Colour : Black
- Material : Conductive Rubber
- Width (Top) : 25 mm
- Width (Bottom) : 55 mm
- Length : 250 mm
- Temperature Resistance : 80°C
- Surface : Smooth on both the sides
- Surface Resistance : < 10^4 Ohms
- Volume Resistance : < 10^4 Ohms - Cm
- Static Generation : Nil

Uses: Used for mixing high static sensitive items.
**Technical Specification of Sticky Door Mat**

Technology improvements in the field of Electronics, Pharmaceutical, Precision and Food processing have made the cleanliness more demanding. Static clean room Zoning is effective only when entrance of particles and dust into the clean room is fully prevented. Through experience and various test it has been confirmed that only one strap or two of uncleaned shoe soles are enough to bring thousand of harmful particles and dust into the clean room Areas / Shoes, slippers etc., which pass over the DISPOSABLE STICKY MAT surface are cleaned of dust particles by sticky mat.

**APPLICATIONS:**

- Electronics precision industry
- Pharmaceutical industry
- Computer room
- Semiconductor assembly room
- Hospital operation theatre
- Chemical and medical laboratories
- 1 Set = 30 Pieces
- Size: 2’ x 3’

**Uses:** Used for clean room entrance point.
Technical Specifications of Antistatic Bags

- Thickness – 100 +/- 10 Microns
- Polymers – Poly Ethylene
- Static Charge - Nil
- Permanently inhibits generation of harmful static charges
- See-through polyethylene material
- Heat sealable
- Resealable bags
- Tubing is ideal for making your own packaging
- Surface resistance - $10^{11}$ Ohm / Sq
- Colour – Transparent

Uses: Used for packing of static sensitive powder, used as liners.
Technical Specifications of Conductive Bags

- Thickness of bag: 90 +/- 10 Microns
- Colour: Black

**ELECTRICAL PROPERTIES**

- Surface Resistivity: $10^4$ Ohms / Sq
- Electrostatic properties: The decay rate less than 2.0 seconds.
- Static Charge Generation: Nil

**Uses:** Used to pack static sensitive powder and it is used to drain static charge for powder when the bag is grounded.
#8040 M10 ALKALINE 4C

The M10 is a member of Pelican's Black Knight™ Series, an innovative range of hi-tech flashlights for use by professionals. M10 Alkaline 4C is 11-1/4" (28.6 cm) in length and equipped with a handy on/off intermittent switch. The M10 is made of chemical resistant, unbreakable material with a thermoplastic rubber grip. The lens is made of a high temperature nylon lens protected by a thermoplastic rubber shroud. The sure grip sheath and head are made of thermoplastic rubber to resist chemicals and perspiration. Its bright pre-focused Xenon laser spot beam penetrates fog and smoke. It also includes a safety battery tray with 4C cell alkaline batteries (not included) in order to avoid accidents in case that cells are inverted. It is water resistant (not for diving applications). You break it, we replace it... forever.

<table>
<thead>
<tr>
<th>CANDLEPOWER</th>
<th>LUMENS</th>
<th>WEIGHT W/BATTERIES</th>
<th>BATTERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000 CP</td>
<td>72</td>
<td>1.15 lbs (521 gr)</td>
<td>4 Alkaline ‘C’ Cells</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>VOLTS</th>
<th>WATTS</th>
<th>AMPS</th>
<th>BATTERY BURN TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00</td>
<td>4.8</td>
<td>0.80</td>
<td>7.7 Hours @ 50° F (10° C)</td>
</tr>
</tbody>
</table>

**COLOR**

Black, Yellow

**APPROVALS**

<table>
<thead>
<tr>
<th>FM</th>
<th>Factory Mutual United States</th>
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<tbody>
<tr>
<td>UL</td>
<td>Underwriters Laboratory United States</td>
</tr>
<tr>
<td>CENELEC</td>
<td>European Standards (Ex II 3 G EEx nL IIC T3)</td>
</tr>
<tr>
<td>MSHA</td>
<td>10C 649 - O</td>
</tr>
<tr>
<td>CSA</td>
<td>Canadian Standards Association</td>
</tr>
</tbody>
</table>

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Technical Specifications of Antistatic Epoxy

- **Material**: Antistatic Epoxy
- **Colour**: Green / Grey
- **Thickness**: 2 mm / 3mm
- **Surface**: Smooth / Joint less
- **Type**: Clean room compatible
- **Antistatic Property**: Permanent
- **Surface Resistance**: $\leq 10^8$ Ohms / Sq
- **Rate of Decay**: $\leq 10$ Seconds
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Technical Specifications of Antistatic Rubber Gloves

➢ Material : Green Colour Rubber Antistatic Gloves
➢ Acid / Alkali Solvent Resistance : Yes
➢ Surface Resistance : $10^{10}$ Ohms / Sq cm
➢ Static Charge Generation : $\leq$ 20 Volts
➢ Size : Small, Medium & Large
➢ Type : Reusable
Technical Specifications to Moisture Barrier Bags

1) Type – PET + Al + P.E
2) Heat Sealable – Yes
3) Size – Maximum 1 mtr width
4) Structure of Static dissipative polyethylene and metalized polyester
5) Provide excellent moisture barrier
6) Maximum puncture resistance
7) Thickness – 100 +/- 10 microns
8) Static Decay Rate - < 0.03 Seconds
9) MVTR (g / 100 sq.in / 24 hrs.) - < 0.5 (ASTM F 1249)
10) Uses – Used to pack high moisture sensitive material
11) Antistatic Property - Yes
## Kinetic Polymers

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<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th>Antistatic</th>
<th>Conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>HDPE</td>
<td>HDPE</td>
<td>HDPE</td>
</tr>
<tr>
<td>Colour</td>
<td>Blue / White</td>
<td>Blue / White</td>
<td>Black</td>
</tr>
<tr>
<td>Material used to make the antistatic / Conductive</td>
<td>Nil</td>
<td>GMS + Extruded oil</td>
<td>Conductive Carbon + Graphite</td>
</tr>
<tr>
<td>Static Charge Generation</td>
<td>10 KV</td>
<td>£ 1 KV</td>
<td>£ 10 V</td>
</tr>
<tr>
<td>Surface Resistance</td>
<td>£ 10¹³</td>
<td>10¹¹ – 10¹²</td>
<td>10⁴ - 10⁶</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>---</td>
<td>8 months – 1 year</td>
<td>Permanent</td>
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<tr>
<td>Mechanical Properties</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Good</td>
</tr>
<tr>
<td>Rate of Decay</td>
<td>£ 1000 Sec</td>
<td>£ 10 Sec</td>
<td>£ 0.02 Sec</td>
</tr>
</tbody>
</table>

- **50 Ltrs Capacity**
- **100 Ltrs Capacity**
- **20 Ltrs Capacity**
- **5 Ltrs Capacity**
- **35 Ltrs Capacity**