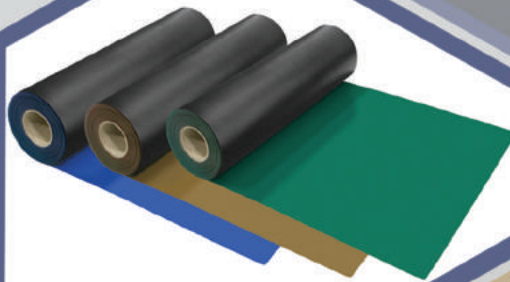


# ALI, INC.

ALUMINUM PROFILE



MODULAR RACKING SYSTEMS



ESD AND CLEANROOM PRODUCTS



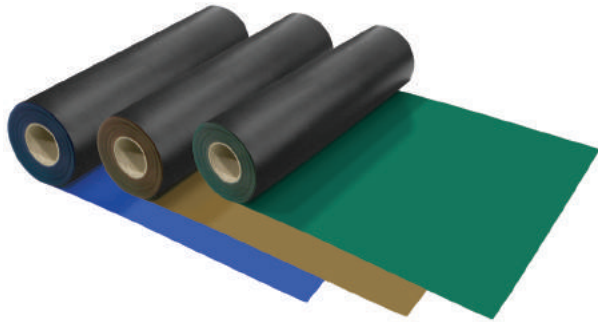
465 East Carmel Street  
San Marcos, CA 92078  
(760) 510-1072 Tel  
(760) 304-8186 Fax  
info@ameri-links.com



# ALI ESD & Clean Products



# ALI ESD Control Table Mat



## Available Worksurface Colors:

Green/Black; Blue/Black;  
Sky Blue/ Black; Gray/Black

## Features:

The mat is resistant to most chemicals and solvents. It is heat-resistant to soldering iron temperature, solder fluxes, and solder flux splatters.

| Item                      | Unit          |                    | Value                               | Method       |
|---------------------------|---------------|--------------------|-------------------------------------|--------------|
| Tensile Strength          | Width         | Kg/cm <sup>2</sup> | 105                                 | KS M 6518-91 |
|                           | Length        |                    | 114                                 |              |
| Elongation                | Width         | %                  | 380                                 |              |
|                           | Length        |                    | 370                                 |              |
| Harness                   | Length        | HS                 | 64                                  |              |
| Tear Strength (B)         | Width         | Kg/cm              | 31                                  |              |
|                           | Length        |                    | 37                                  |              |
| Temp. Resistance          |               | °C                 | Max. 130                            |              |
| Surface Resistivity (RTT) | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>5</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>9</sup> |              |
| Volume Resistivity (RTG)  | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>5</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>9</sup> |              |
| Static Decay 5,000V 500V  |               | Second             | <0.01                               | FTS 101 C    |

|               |  |
|---------------|--|
| Material      | Conductive Rubber, Static Dissipative Rubber                                     |
| Thickness     | 2 & 3 mm   |
| Width         | 120 cm   |
| Length        | 10m / Roll   |
| Color (Upper) | Green, Gray Blue, Sky Blue   |
| Tester        | *ETS 406C Static Decay meter. *3M Model 701 Test Kit for Static Control Surfaces |

| Part Number      | Description  |
|------------------|--|
| M11-M-007- Blue  | ESD Control Table Mat, Blue: 10m x 1.2m x 2mm Thickness  |
| M11-M-007- Gray  | ESD Control Table Mat, Gray: 10m x 1.2m x 2mm Thickness  |
| M11-M-007- Green | ESD Control Table Mat, Green: 10m x 1.2m x 2mm Thickness |

# ALI ESD Black Table Mat



## Other Information

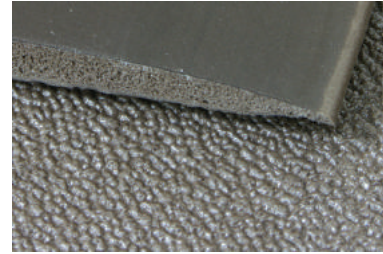
The mat is resistant to most chemicals such as solvents, it is heat - resistant to soldering iron temperature, solder fluxes, and solder flux splatters. This non-curling mat is the most economic solution for a static-safe work area.

| Item                      | Unit          |                    | Value                               | Method       |
|---------------------------|---------------|--------------------|-------------------------------------|--------------|
| Tensile Strength          | Width         | Kg/cm <sup>2</sup> | 105                                 | KS M 6518-91 |
|                           | Length        |                    | 114                                 |              |
| Elongation                | Width         | %                  | 380                                 |              |
|                           | Length        |                    | 370                                 |              |
| Hardness                  | Length        | HS                 | 64                                  |              |
| Tear Strength (B)         | Width         | Kg/cm              | 31                                  |              |
|                           | Length        |                    | 37                                  |              |
| Temp. Resistance          |               | °C                 | Max. 130                            |              |
| Surface Resistivity (RTT) | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Volume Resistivity (RTG)  | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Static Decay 5,000V 500V  |               | Second             | <0.01                               | FTS 101 C    |

|               |   |
|---------------|---|
| Material      | Conductive Rubber, Static Dissipative Rubber                                    |
| Thickness     | 2 mm  |
| Width         | 120 cm  |
| Length        | 10m / Roll  |
| Color (Upper) | Black   |
| Tester        | *ETS 406C Static Decay Meter *3M Model 701 Test Kit for Static Control Surfaces |

| Part Number | Description  |
|-------------|--|
| M13-M-000   | ESD Control Table Mat, Black: 10m x 1.2m x 2mm Thickness |

# ALI ESD Antifatigue Mat



**Part Number: M15-M-001**  
ESD Antifatigue Floor Mat, Roll 10m x 1m

| Specifications    |                |                  |                             |
|-------------------|----------------|------------------|-----------------------------|
| Description       | Unit           | Value            | Method                      |
| Tensile Strength  | Mpa (psi)      | 7.4 (1067.9)     | ASTM D 412-1998<br>A Method |
| Elongation        | %              | 225.3            |                             |
| Tear Strength (B) | kN/m (bf/inch) | 27.00 (154.1)    | ASTM D 624-2000             |
| Hardness          | HAD            | 64               | ASTM D 2240-2003            |
| Resistivity (RTT) | $\Omega$       | $10^7 \sim 10^8$ | ASTM D 257-1999             |
| Resistivity (RTG) | $\Omega$       | $10^7 \sim 10^8$ | ASTM D 257-1999             |

| Size and Packing Information |                        |             |    |  |
|------------------------------|------------------------|-------------|----|--|
| Size                         | Thickness              | $8 \pm 5\%$ | mm | Embossed Surface ↷<br><br>↶ Foamed PVC |
|                              | Width                  | 100         | cm |  |
|                              | Roll                   | 10          | m  |  |
| Color                        | Gray or Brown          |             | -  |  |
| Material                     | Foamed PVC + ESD Agent |             | -  |  |

# ALI ESD Silicon Mat



| Item                      | Unit          |                    | Value                               | Method       |
|---------------------------|---------------|--------------------|-------------------------------------|--------------|
| Tensile Strength          | Width         | Kg/cm <sup>2</sup> | 105                                 | KS M 6518-91 |
|                           | Length        |                    | 114                                 |              |
| Elongation                | Width         | %                  | 380                                 |              |
|                           | Length        |                    | 370                                 |              |
| Hardness                  | Length        | HS                 | 64                                  |              |
| Tear Strength (B)         | Width         | Kg/cm              | 31                                  |              |
|                           | Length        |                    | 37                                  |              |
| Temp. Resistance          |               | °C                 | Max. 130                            |              |
| Surface Resistivity (RTT) | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Volume Resistivity (RTG)  | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Static Decay 5,000V 500V  |               | Second             | <0.01                               | FTS 101 C    |

|               |  |
|---------------|--|
| Material      | Silicon  |
| Thickness     | 2.3 mm   |
| Width         | 300 mm   |
| Length        | 420 mm   |
| Color (Upper) | Black  |
| Tester        | *ETS 406C Static Decay meter. *3M Model 701 Test Kit for Static Control Surfaces |

| Part Number | Description                            |
|-------------|--|
| M36-M-001T  | ESD Silicon Mat, 2.3mm x 300mm x 420mm |

# ALI ESD Silicon Pin Mat

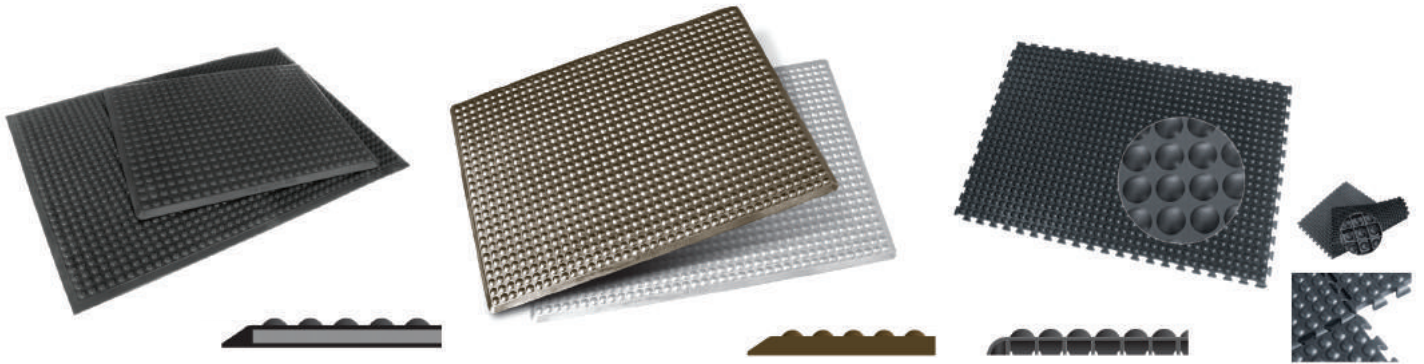


| Item                      | Unit          |                    | Value                               | Method       |
|---------------------------|---------------|--------------------|-------------------------------------|--------------|
| Tensile Strength          | Width         | Kg/cm <sup>2</sup> | 105                                 | KS M 6518-91 |
|                           | Length        |                    | 114                                 |              |
| Elongation                | Width         | %                  | 380                                 |              |
|                           | Length        |                    | 370                                 |              |
| Hardness                  | Length        | HS                 | 64                                  |              |
| Tear Strength (B)         | Width         | Kg/cm              | 31                                  |              |
|                           | Length        |                    | 37                                  |              |
| Temp. Resistance          |               | °C                 | Max. 130                            |              |
| Surface Resistivity (RTT) | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Volume Resistivity (RTG)  | Black (Under) | Ω/sqmt             | 10e <sup>3</sup> ~ 10e <sup>4</sup> | ASTMD257     |
|                           | Color (Upper) |                    | 10e <sup>7</sup> ~ 10e <sup>8</sup> |              |
| Static Decay 5,000V 500V  |               | Second             | <0.01                               | FTS 101 C    |

|               |  |
|---------------|--|
| Material      | Silicon  |
| Thickness     | 11 mm  |
| Width         | 300 mm   |
| Length        | 400 mm   |
| Color (Upper) | Black  |
| Tester        | *ETS 406C Static Decay meter. *3M Model 701 Test Kit for Static Control Surfaces |

| Part Number | Description                               |
|-------------|---|
| M36-M-001T  | ESD Silicon Pin Mat, 11mm x 300mm x 400mm |

# ALI ESD Antifatigue Mats



Type A

Type B

Interlocking Type

| Properties            |   | Unit           | Type A  |           | Interlocking Type                  | Type B                                  |
|-----------------------|---|----------------|---|-----------|------------------------------------|---|
| Item Code             |   |                | M15-M-002   | M15-M-003 | M15-M-004                          | M15-M-001                               |
| Basic Properties      | Material                                      | -              | Conductive NBR+<br>High Elastic Polyurethane          |           | Conductive NBR                     | Polyurethane                            |
|                       | Color   | -              | Black   |           | Black                              | Dark Gray, Gray                         |
|                       | Weight  | kg             | 3.4   | 2.1       | 2.7                                | 2.5                                     |
|                       | Length  | cm             | 90 ± 1%   | 45 ± 1%   | 90 ± 1%                            | 90 ± 1%                                 |
|                       | Width   | cm             | 60 ± 1%   | 60 ± 1%   | 60 ± 1%                            | 60 ± 1%                                 |
|                       | Thickness                                     | mm             | 16  |           | 16                                 | 15                                      |
| Mechanical            | Intensity                                     | Sh-A           | 30~40   |           | 30~40                              | 30~40                                   |
|                       | Density                                       | kg/Cubic Meter | -   |           | -                                  | 380 ± 10%                               |
|                       | Compressibility                               | %              | 50  |           | 50                                 | 50                                      |
|                       | Degree of Abrasion                            | Cubic mm       | 180   |           | 180                                | 180                                     |
|                       | Tensile Strength                              | Mpa            | 1.5   |           | 1.5                                | 2                                       |
|                       | Elongation                                    | %              | 500   |           | 500                                | 500                                     |
|                       | Crushing Strength                             | N/mm           | 4   |           | 4                                  | 4                                       |
|                       | Stability (Anti-slip)                         | R/V            | 10/11   |           | 10/11                              | 10/11                                   |
| Electrical Resistance | Surface                                       | ohm            | 10e <sup>5</sup> ~10e <sup>6</sup>                    |           | 10e <sup>5</sup> ~10e <sup>6</sup> | x 10e <sup>8</sup> ~ 5x10e <sup>9</sup> |
| Heat                  | The lowest Point for user                     | Degree C       | 80  |           | 80                                 | 80                                      |
|                       | Available Highest Point for Short Term to use | Degree C       | 120   |           | 120                                | 120                                     |
| Constructions         |   |                | Conductive NBR<br>Polyurethane Foam<br>Conductive NBR |           | Homegenous<br>Conductive NBR       | Homogenous<br>Polyurethane              |



# ALI Ground Cord



P/N: M05-Z-003



P/N: M05-Z-009



P/N: M05-Z-001

## Description

Ground cord connects the table mat to the grounding point. Polyurethane Polymer allows the strain reliefs to survive 1 million flexes. The included Ring Terminal allows for customizing cord length.

## Features


- Easy to use • No adjustment necessary
- Easy connect Ground snap to Mat
- Dome Cap reduces tripping
- Easy attachment with Ring Terminal and ESD ground
- Long shelf life, Easy to clean

## Properties


|                |                         |  |
|----------------|-------------------------|--|
| Cord           | <b>Length</b>           | 1.8 mtrs- 4.5 mtrs & (Any length is available) |
|                | <b>Mold Material</b>    | Polyurethane (PU)                              |
|                | <b>Cable Dia.</b>       | 2.0 mm   |
|                | <b>Cap</b>              | Yellow or Black                                |
|                | <b>Color</b>            | Black  |
|                | <b>Cable Break Load</b> | 120N   |
| Stud or Socket | <b>Plastic Material</b> | ABS+PC   |
|                | <b>Size</b>             | 10 mm  |

# ALI Work Station Ground Monitor


## Continuous Work Station monitor

| M54-E-001   | Features  |
|---|---|
|  | <ul style="list-style-type: none"> <li>• 100% Continuous Work Station Monitoring</li> <li>• Visual Indicating Light 6' Cable</li> <li>• Buzzer Alarm</li> </ul> |
|   | <p style="text-align: center;">Specifications</p>   |
|   | <ul style="list-style-type: none"> <li>• Input AC 100 ~ 230v / 50 /60 Hz (DC)</li> <li>• Weight: 60gm (not including power supply adaptor)</li> </ul>           |






## Dual Continuous Work Station Monitor

| M55-E-001   | Features   |
|---|--|
|  | <ul style="list-style-type: none"> <li>• 100% Continuous Work Station Monitoring</li> <li>• Visual Indicating Light</li> <li>• Monitor two operator and two work surface mats</li> <li>• Size: Monitor 13 x 10.3 x 3.6</li> </ul> <p>Remote Input Jack: 9.3 x 2.8 x 2.5 cm</p> |
|   | <p style="text-align: center;">Specifications</p>  |
|   | <ul style="list-style-type: none"> <li>• Input AC 100 ~ 230V /50 / 60 Hz (DC)</li> </ul>   |

## Dual Wrist Strap Bench Mount

| M11-Z-001   | Features  |
|---|---|
|  | <ul style="list-style-type: none"> <li>• Easy to use</li> <li>• No adjustment Necessary</li> <li>• Dual Banana Jacks for Grounding to Wrist Straps</li> <li>• Vinyl Boot Insulates Electrical Circuits</li> <li>• Cable Length: 4.5 meters</li> </ul> |

# ALI EVA Mat with Adhesive

|                        | EVA Mat with Adhesive   | EVA Mat with Adhesive   | ESD Tape   |
|------------------------|---|---|--|
| Item Code              | M-23-M-002  | M23-M-003   | M-24-T-001   |
| Size (mm, m)           | 2.5mm x 0.96m x 9.5m  | 2.7mm x 0.96m x 9.5m  | 0.2mm x 40mm x 30m   |
| S/R (ohm/sq)           | Top   | 10e <sup>6</sup> ± 1  | 10e <sup>6</sup> ± 1   |
|                        | Bottom  | 10e <sup>5</sup> ± 1  | 10e <sup>7</sup> ± 1   |
| Hardness               | HS  | 41 (KS M 651:8 2006, Type A)  | -  |
| Frictional Coefficient | 0.754 (KS M ISO 8295: 2006) Statical Friction   |   |  |
| Materials              | ESD Mat<br>EVA Foam   | ESD Mat<br>EVA Foam<br>Releasing Paper<br>Acrylic Adhesive  | ESD Mat<br>Releasing Paper<br>Acrylic Adhesive   |
| Pictures               |    |    |   |
| Structures             | <br>ESD Mat Fabric (4mm stripe)<br>EVA Foam  | <br>ESD Mat Fabric (4mm stripe)<br>Conductive EVA Foam<br>Acrylic Adhesive<br>Releasing Paper  | <br>ESD Tape (5mm grid)<br>Acrylic Adhesive<br>Releasing Paper  |
| Applications           | Table top of assembly lines for sensitive electronic parts  | Table top of assembly lines for sensitive electronic parts  | Cover for the edges of the ESD EVA mats, Pad and other Mats  |
| Features               | <ul style="list-style-type: none"> <li>• Smooth, soft and anti-scratches surface</li> <li>• Cushion for easy grip</li> <li>• Good ESD properties</li> <li>• Light Weight</li> </ul> | <ul style="list-style-type: none"> <li>• Smooth, soft and anti-scratches surface</li> <li>• Cushion for easy grip</li> <li>• Good ESD properties</li> <li>• Easy installation with bottom adhesive treatment</li> </ul> | <ul style="list-style-type: none"> <li>• ESD Properties on both sides</li> <li>• Soft and Flexible</li> <li>• No lint generation</li> <li>• No residue</li> <li>• Homogenous structures</li> </ul> |

# ALI ESD EVA Mat

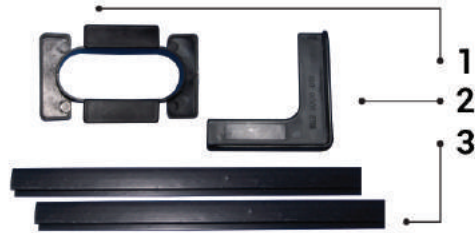


**Description:** ESD EVA Mat with Adhesive, surface Resistivity  $10^6 \sim 10^8$  ohm

**Color:** Black

| Technical Specifications |                    |                 |
|--------------------------|--------------------|-----------------|
| Item                     | Unit               | Value           |
| Density                  | kg/cm <sup>3</sup> | 0.0305          |
| Tensile Strength         | kg/cm <sup>2</sup> | 3.4             |
| Elongation to Break      | %                  | 208             |
| Tear Strength            | kg/cm              | 2.1             |
| Shrinkage                | %                  | -1.7            |
| Compression Strength     | kg/cm <sup>2</sup> | 0.39            |
| Available Thickness      | mm                 | 5mm; 10mm, 25mm |
| Surface Resistivity      | $\Omega$ /SQ       | $10^6 - 10^8$   |
| Test Method              |                    | ASTM-D257       |

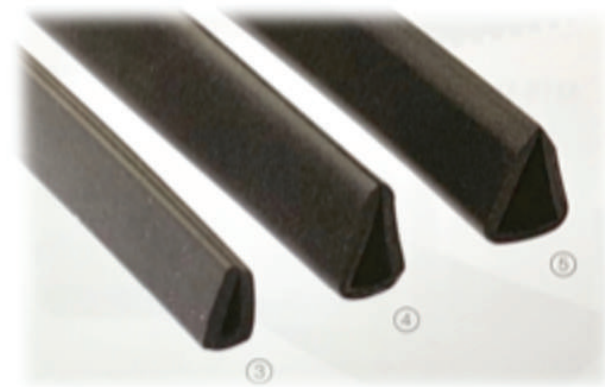
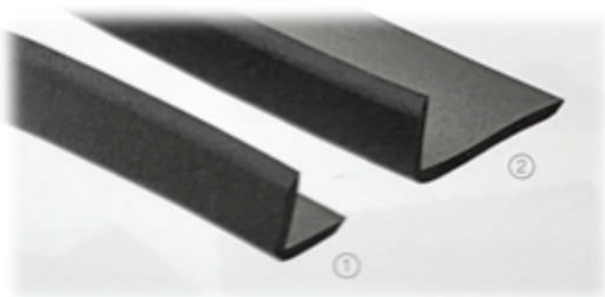
# ALI ESD Edge Protector



## ESD Accessories for Custom Conductive Corrugated Box

| 1) M14-H-003  | 2) M14-H-001  | 3) M14-H-002   |
|---|---|--|
| <p>ESD Handle<br/>Material: Conductive PP S/R:<br/><math>10e^4 \sim 10e^6</math> Ohm/sq<br/>Different Sizes Available</p> | <p>ESD Corner Angel<br/>Material: Conductive PP S/R:<br/><math>10e^4 \sim 10e^6</math> Ohm/sq<br/>Different Sizes Available</p> | <p>ESD Side/ Frame<br/>Material: Conductive PP S/R:<br/><math>10e^4 \sim 10e^6</math> Ohm/sq<br/>Different Sizes Available</p> |

## ESD Foamed Rubber Edge Protector

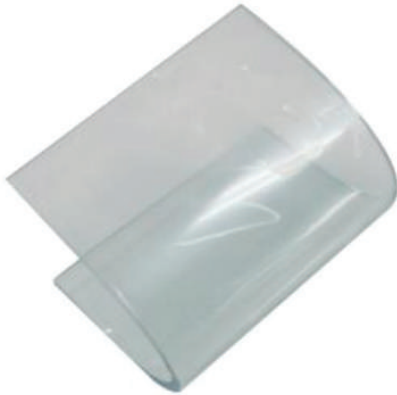


|  |
|--|
| <p>1) M00-M-002<br/>Material: ESD Foam Rubber SR: <math>10e^8 \sim 10e^9</math> Ohm/sq<br/>Size: 15mm x 15mm x 100 m (roll)</p>  |
| <p>2) M00-M-003<br/>Material: ESD Foam Rubber SR: <math>10e^8 \sim 10e^9</math> Ohm/sq<br/>Size: 15mm x 38mm x 50 m (roll)<br/><b>Application:</b> Edge protection Fortables</p> |
| <p>3) M00-M-003<br/>Material: Rubber<br/>SR: <math>10e^4 \sim 10e^5</math> Oms/sq<br/>Size: 10mm x 2.5mm x 100 m (roll)</p>  |
| <p>4) M00-M-004<br/>Material: Rubber<br/>SR: <math>10e^4 \sim 10e^5</math> Oms/sq<br/>Size: 15mm x 5mm x 100 m (roll)</p>  |
| <p>5) M00-M-005<br/>Material: Rubber<br/>SR: <math>10e^4 \sim 10e^5</math> Oms/sq<br/>Size: 15mm x 9mm x 100 m (roll)</p>  |

# ALI ESD Acrylic and Polycarbonate Sheets



# ALI ESD Acrylic Plate



**Part Number: M01-Y-003 ~ 20**

| Specifications          |  |   |   |             |
|-------------------------|--|---|---|-------------|
| Division                | Testing Items  | Unit  | PMMA Acrylic                                | Test Method |
| Physical Properties     | Specific Gravity   | g/cm <sup>3</sup>   | 1.19  | ASTM D-792  |
|                         | Water Absorption   | %   | 0.3   | ASTM D-570  |
|                         | Pencil Hardness  | -   | 3H ~ 5H                                     | JIS K-5400  |
|                         | Piece Close Adhesion Strength                                    | -   | 100/100                                     | JIS K-5400  |
| Mechanical Properties   | Tensile Strength   | Mpa (kgf/cm <sup>2</sup> )  | 560 ~ 670                                   | ASTM D-638  |
|                         | Elongation   | %   | 2.0 ~ 7.0                                   | ASTM D-638  |
|                         | Flexural Strength  | kgf/cm <sup>2</sup>   | 840 ~ 1200                                  | ASTM D-790  |
|                         | Flexural Modulus of Elasticity                                   | kgf/cm <sup>2</sup>   | 2.6 10 <sup>4</sup> ~ 3.2 x 10 <sup>4</sup> | ASTM D-256  |
|                         | Compressive Strength   | kgf/cm <sup>2</sup>   | -   | ASTM D-256  |
|                         | Compressive Strength   | J/N (kgf cm/cm <sup>2</sup> )                                       | 2   | ASTM D-256  |
| Thermal Properties      | Burning Resistance   | -   | Incombustibility HB                         | UL-94       |
|                         | Coefficient of Linear Thermal Expansion                          | x10 <sup>-5</sup> in/ in °F   | -   | ASTM D-696  |
|                         | Heat Deflection Temp   | °F/ °C at 264 psi   | -   | ASTM D-648  |
|                         | Vicat Softening Temp   | °F/ °C  | -   | ASTM D-3418 |
|                         | Max Operation Temp   | °F/ °C  | -   | -           |
|                         | Thermal Conductivity   | BTU-in/ft <sup>2</sup> -hr-°F<br>x10 <sup>-4</sup> cal/in/cm-sec-°C | -   | -           |
| Electronical Properties | Surface Resistivity  | 500   | 10 <sup>6</sup> ~ 10 <sup>8</sup>           | ASTM D-257  |
|                         | Anti-Static Decay Time   | Sec   | Below 0.1                                   | MIL B-81705 |
| Size                    | 1,200 mm x 2,400 mm  |   |   |             |
| Thickness               | 3.0/ 4.0/ 6.0/ 8.0/ 10.0   |   |   |             |
| Color                   | Clear Transparent  |   |   |             |
| Remark                  | Other Size, Thickness and Colors are also Available Upon Request |   |   |             |

Conductive NBR

# ALI Static Dissipative PC (Polycarbonate) Plate



Part Number: M03-Y-003 ~ 010

| Specifications          |  |  |                                   |             |
|-------------------------|--|--|-----------------------------------|-------------|
| Division                | Testing Items  | Unit   | PC Polycarbonate                  | Test Method |
| Physical Properties     | Specific Gravity   | g/cm <sup>2</sup>                                      | 1.2                               | ASTM D-792  |
|                         | Water Absorption   | %  | 0.01                              | ASTM D-570  |
|                         | Pencil Hardness  | -  | HB                                | JIS K-5400  |
|                         | Piece Close Adhesion Strength                                    | -  | 100/100                           | JIS K-5400  |
| Mechanical Properties   | Tensile Strength   | Mpa (kgf/cm <sup>2</sup> )                             | 58.8~68.6/(560~670)               | ASTM D-638  |
|                         | Elongation   | %  | 90~140                            | ASTM D-638  |
|                         | Flexural Strength  | kgf/cm <sup>2</sup>                                    | 920~980                           | ASTM D-790  |
|                         | Flexural Modulus of Elasticity                                   | kgf/cm <sup>2</sup>                                    | 2500                              | ASTM D-256  |
|                         | Compressive Strength   | kgf/cm <sup>2</sup>                                    | -                                 | ASTM D-256  |
|                         | Compressive Strength   | J/N (kgf cm/cm <sup>2</sup> )                          | 6                                 | ASTM D-256  |
| Thermal Properties      | Burning Resistance   | -  | Incombustibility V-0~v2           | UL-94       |
|                         | Coefficient of Linear Thermal Expansion                          | x10-5 in/ in °F  | 3.8                               | ASTM D-696  |
|                         | Heat Deflection Temp   | °F/ °C at 264 psi                                      | 270/132                           | ASTM D-648  |
|                         | Vicat Softening Temp   | °F/ °C   | 310/154                           | ASTM D-3418 |
|                         | Max Operation Temp   | °F/ °C   | 170/77                            | -           |
|                         | Thermal Conductivity   | BTU-in/ft <sup>2</sup> -hr-°F<br>x10-4cal/in/cm-sec-°C | 1.3/4.5                           | ASTM C-177  |
| Electronical Properties | Surface Resistivity  | 500  | 10 <sup>6</sup> ~ 10 <sup>8</sup> | ASTM D-257  |
|                         | Anti-Static Decay Time   | Sec  | Below 0.1                         | MIL B-81705 |
| Size                    | 1,200 mm x 2,400 mm  |  |                                   |             |
| Thickness               | 3.0/ 4.0/ 6.0/ 8.0/ 10.0   |  |                                   |             |
| Color                   | Clear Transparent  |  |                                   |             |
| Remark                  | Other Size, Thickness and Colors are also Available Upon Request |  |                                   |             |




# ALI ESD Clear Curtain Film

Part Number: M06-Y-006T

| Specifications         |             |                                      |                                      |                    |  |
|------------------------|-------------|--------------------------------------|--------------------------------------|--------------------|--|
| Descriptions           |             | Front Side                           | Back                                 | Unit               | Test Method                              |
| Surface Resistivity    |             | 10e <sup>8</sup> ~ 10e <sup>10</sup> | 10e <sup>8</sup> ~ 10e <sup>10</sup> | ohm                | ASTM D-257                               |
| Volume resistivity     |             | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | ohm/cm             |  |
| Friction Electrocharge |             | Less than 300                        | Less than 300                        | Voltage            | Electrostatic Field Meter                |
| Decay Time             | 5000V->500V | Less than 0.5                        | Less than 0.5                        | Sec.               | MIL-B-81705C                             |
| Tensile Strength       | MD          | 1.9                                  |                                      | kg/mm <sup>2</sup> | ASTM D-882                               |
|                        | TD          | 1.9                                  |                                      |                    |  |
| 100% Modulus           | MD          | 1.1                                  |                                      | kg/mm <sup>2</sup> |  |
|                        | TD          | 1.8                                  |                                      |                    |  |
| Elongation             | MD          | 170                                  |                                      | %                  |  |
|                        | TD          | 210                                  |                                      |                    |  |
| Heat Shrinkage         |             | Less than 5                          |                                      | %                  | Internal Method<br>(60°C x 30min in H2O) |

| Resistance to Chemicals |            |      |  |
|-------------------------|------------|------|--|
| Chemicals               | Front Side | Back | Test Method  |
| Hydrochloric Acid (10%) | ○          | ○    | JIS K-7114<br>5cm x 5cm<br>Size of Specimen:<br>Dipped for 168 hrs |
| Sulfuric Acid (10%)     | ○          | ○    |  |
| Acetic Acid (5%)        | ○          | ○    |  |
| Sodium Hydroxide (10%)  | ○          | ○    |  |
| Aqueous Ammonia (10%)   | ○          | ○    |  |
| Ethyl Alcohol (50%)     | △          | △    |  |
| Acetone (95%)           | △          | △    |  |
| Benzene (95%)           | ✖          | ✖    |  |
| Formalin (95%)          | ○          | ○    |  |


\*\* ○ Good    △ Average    ✖ N/G

| Size and Packing Information |                    |     |      |   |
|------------------------------|--------------------|-----|------|---|
| Size                         | Thickness          | 0.5 | mm   |  |
|                              | Width              | 137 | cm   |   |
|                              | Roll               | 20  | m    |   |
| Color                        | Clear Transparency |     | -    |   |
| Material of the Film         | PVC                |     | -    |   |
| Material of the Core         | Paper              |     | -    |   |
| Core Diameter                | 3                  |     | inch |   |

# ALI ESD Grid Black Curtain Film

Part Number: M09-Y-003

| Specifications                |                     |                                     |                        |                    |                           |
|-------------------------------|---------------------|-------------------------------------|------------------------|--------------------|---------------------------|
| Descriptions                  |                     | Front Side                          | Back                   | Unit               | Test Method               |
| <b>Surface Resistivity</b>    |                     | 10e <sup>5</sup> ~ 10e <sup>8</sup> | Over 10e <sup>11</sup> | ohm/ Sq.m          | ASTM D-257                |
| <b>Electro Static Voltage</b> |                     | Less than 700                       | Less than 1,200        | Voltage            | Electrostatic Field Meter |
| <b>Decay Time</b>             | 5000V->500V         | Less than 0.5                       | Less than 0.5          | Sec.               | MIL-B-81705C              |
| <b>Tensile Strength</b>       | Length/MD           | 1.9                                 |                        | kg/mm <sup>2</sup> | ASTM D-882                |
|                               | Width/TD            | 1.9                                 |                        |                    |                           |
| <b>100% Modulus</b>           | Length/MD           | 1.1                                 |                        | kg/mm <sup>2</sup> |                           |
|                               | Width/TD            | 1.8                                 |                        |                    |                           |
| <b>Elongation</b>             | Length/MD           | 170                                 |                        | %                  |                           |
|                               | Width/TD            | 210                                 |                        |                    |                           |
| <b>Heat Shrinkage</b>         | 60°C x 30min in H2O | Less than 5                         |                        | %                  | Internal Method           |

| Size and Packing Information |                      |     |      |   |
|------------------------------|----------------------|-----|------|---|
| <b>Size</b>                  | Thickness            | 0.5 | mm   |  |
|                              | Width                | 137 | cm   |   |
|                              | Roll                 | 20  | m    |   |
| <b>Color</b>                 | Grid on Opaque Black |     | -    |   |
| <b>Material of the Film</b>  | PVC                  |     | -    |   |
| <b>Material of the Core</b>  | Paper                |     | -    |   |
| <b>Core Diameter</b>         | 3                    |     | inch |   |

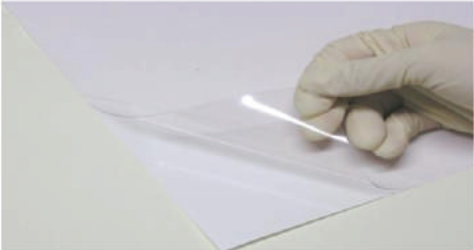
# ALI ESD Clear Adhesive Curtain Film

Part Number: M11-Y-001

| Specifications         |             |                                      |                                      |                    |  |
|------------------------|-------------|--------------------------------------|--------------------------------------|--------------------|--|
| Descriptions           |             | Front Side                           | Back (Adhe)                          | Unit               | Test Method                              |
| Surface Resistivity    |             | 10e <sup>8</sup> ~ 10e <sup>10</sup> | 10e <sup>8</sup> ~ 10e <sup>10</sup> | ohm                | ASTM D-257                               |
| Volume resistivity     |             | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | ohm/cm             |  |
| Friction Electrocharge |             | Less than 50                         | Less than 50                         | Voltage            | Electrostatic Field Meter                |
| Decay Time             | 5000V->500V | Less than 0.5                        | Less than 0.5                        | Sec.               | MIL-B-81705C                             |
| Tensile Strength       | MD          | 1.9                                  |                                      | kg/mm <sup>2</sup> | ASTM D-882                               |
|                        | TD          | 1.9                                  |                                      |                    |  |
| 100% Modulus           | MD          | 1.1                                  |                                      | kg/mm <sup>2</sup> |  |
|                        | TD          | 1.8                                  |                                      |                    |  |
| Elongation             | MD          | 170                                  |                                      | %                  |  |
|                        | TD          | 210                                  |                                      |                    |  |
| Heat Shrinkage         |             | Less than 5                          |                                      | %                  | Internal Method<br>(60°C x 30min in H2O) |

| Resistance to Chemicals |            |      |  |
|-------------------------|------------|------|--|
| Chemicals               | Front Side | Back | Test Method  |
| Hydrochloric Acid (10%) | ○          | ○    | JIS K-7114<br>5cm x 5cm<br>Size of Specimen:<br>Dipped for 168 hrs |
| Sulfuric Acid (10%)     | ○          | ○    |  |
| Acetic Acid (5%)        | ○          | ○    |  |
| Sodium Hydroxide (10%)  | ○          | ○    |  |
| Aqueous Ammonia (10%)   | ○          | ○    |  |
| Ethyl Alcohol (50%)     | △          | △    |  |
| Acetone (95%)           | △          | △    |  |
| Benzene (95%)           | ✖          | ✖    |  |
| Formalin (95%)          | ○          | ○    |  |

\*\* ○ Good    △ Average    ✖ N/G

| Size and Packing Information |                    |     |      |   |
|------------------------------|--------------------|-----|------|---|
| Size                         | Thickness          | 0.2 | mm   |  |
|                              | Width              | 120 | cm   |   |
|                              | Roll               | 10  | m    |   |
| Color                        | Clear Transparency |     | -    |   |
| Material of the Film         | PVC                |     | -    |   |
| Material of the Core         | Paper              |     | -    |   |
| Core Diameter                | 3                  |     | inch |   |

# ALI ESD Black Adhesive Curtain Film

Part Number: M11-Y-002t

| Specifications         |             |                                      |                                      |                    |  |
|------------------------|-------------|--------------------------------------|--------------------------------------|--------------------|--|
| Descriptions           |             | Front Side                           | Back                                 | Unit               | Test Method                              |
| Surface Resistivity    |             | 10e <sup>8</sup> ~ 10e <sup>10</sup> | 10e <sup>8</sup> ~ 10e <sup>10</sup> | ohm                | ASTM D-257                               |
| Volume resistivity     |             | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | 10e <sup>7</sup> ~ 10e <sup>8</sup>  | ohm/cm             |  |
| Friction Electrocharge |             | Less than 50                         | Less than 50                         | Voltage            | Electrostatic Field Meter                |
| Decay Time             | 5000V->500V | Less than 0.5                        | Less than 0.5                        | Sec.               | MIL-B-81705C                             |
| Tensile Strength       | MD          | 1.9                                  |                                      | kg/mm <sup>2</sup> | ASTM D-882                               |
|                        | TD          | 1.9                                  |                                      |                    |  |
| 100% Modulus           | MD          | 1.1                                  |                                      | kg/mm <sup>2</sup> |  |
|                        | TD          | 1.8                                  |                                      |                    |  |
| Elongation             | MD          | 170                                  |                                      | %                  |  |
|                        | TD          | 210                                  |                                      |                    |  |
| Heat Shrinkage         |             | Less than 5                          |                                      | %                  | Internal Method<br>(60°C x 30min in H2O) |

| Resistance to Chemicals |            |      |  |
|-------------------------|------------|------|--|
| Chemicals               | Front Side | Back | Test Method  |
| Hydrochloric Acid (10%) | ○          | ○    | JIS K-7114<br>5cm x 5cm<br>Size of Specimen:<br>Dipped for 168 hrs |
| Sulfuric Acid (10%)     | ○          | ○    |  |
| Acetic Acid (5%)        | ○          | ○    |  |
| Sodium Hydroxide (10%)  | ○          | ○    |  |
| Aqueous Ammonia (10%)   | ○          | ○    |  |
| Ethyl Alcohol (50%)     | △          | △    |  |
| Acetone (95%)           | △          | △    |  |
| Benzene (95%)           | ✖          | ✖    |  |
| Formalin (95%)          | ○          | ○    |  |

\*\* ○ Good    △ Average    ✖ N/G


| Size and Packing Information |                    |     |      |
|------------------------------|--------------------|-----|------|
| Size                         | Thickness          | 0.2 | mm   |
|                              | Width              | 120 | cm   |
|                              | Roll               | 10  | m    |
| Color                        | Clear Transparency |     | -    |
| Material of the Film         | PVC                |     | -    |
| Material of the Core         | Paper              |     | -    |
| Core Diameter                | 3                  |     | inch |



# ALI ESD Grid Curtain Film

Part Number: M05-Y-009

| Specifications                |                     |                                     |                        |                    |                           |
|-------------------------------|---------------------|-------------------------------------|------------------------|--------------------|---------------------------|
| Descriptions                  |                     | Front (Grid) Side                   | Back                   | Unit               | Test Method               |
| <b>Surface Resistivity</b>    |                     | 10e <sup>5</sup> ~ 10e <sup>8</sup> | Over 10e <sup>11</sup> | ohm/ Sq.m          | ASTM D-257                |
| <b>Electro Static Voltage</b> |                     | Less than 700                       | Less than 1,200        | Voltage            | Electrostatic Field Meter |
| <b>Decay Time</b>             | 5000V->500V         | Less than 0.5                       | Less than 0.5          | Sec.               | MIL-B-81705C              |
| <b>Tensile Strength</b>       | Length/MD           | 1.9                                 |                        | kg/mm <sup>2</sup> | ASTM D-882                |
|                               | Width/TD            | 1.9                                 |                        |                    |                           |
| <b>100% Modulus</b>           | Length/MD           | 1.1                                 |                        | kg/mm <sup>2</sup> |                           |
|                               | Width/TD            | 1.8                                 |                        |                    |                           |
| <b>Elongation</b>             | Length/MD           | 170                                 |                        | %                  |                           |
|                               | Width/TD            | 210                                 |                        |                    |                           |
| <b>Heat Shrinkage</b>         | 60°C x 30min in H2O | Less than 5                         |                        | %                  | Internal Method           |

| Size and Packing Information |                      |     |      |  |
|------------------------------|----------------------|-----|------|--|
| <b>Size</b>                  | Thickness            | 0.5 | mm   |  |
|                              | Width                | 137 | cm   |  |
|                              | Roll                 | 20  | m    |  |
| <b>Color</b>                 | Grid on Opaque Black |     | -    |  |
| <b>Material of the Film</b>  | PVC                  |     | -    |  |
| <b>Material of the Core</b>  | Paper                |     | -    |  |
| <b>Core Diameter</b>         | 3                    |     | inch |  |

# ALI Conductive Corrugated Plastic



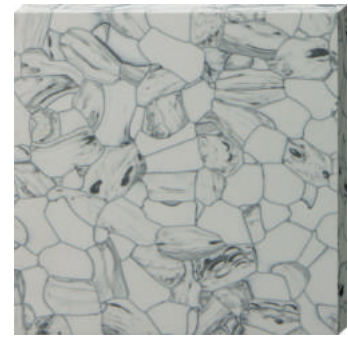
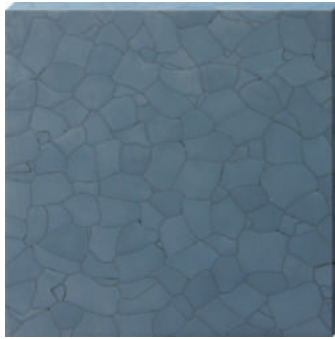
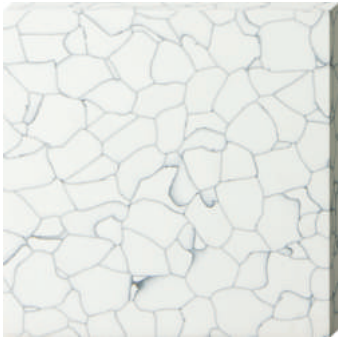
| General Information |                               |
|---------------------|-------------------------------|
| Standar Size        | 1200 mm x 2400 mm (4ft x 8ft) |
| Available Thickness | 4 mm & 10 mm                  |
| Color               | Black                         |
| Material            | Conductive PP                 |

| Features   |
|--|
| Light, good property against water, chemicals and oils.<br>Permanent conductive property, high durability. |

| Part Numbers        |   |
|---------------------|---|
| <b>M13-H-001-4</b>  | Black Conductive Corrugated Plastic, 4' x 8' x 4 mm; 10e4 ~ 10e6 ohm  |
| <b>M13-H-002-10</b> | Black Conductive Corrugated Plastic, 4' x 8' x 10 mm; 10e4 ~ 10e6 ohm |

| Part Numbers                |                     |               |             |
|-----------------------------|---------------------|---------------|-------------|
| Item                        | Unit                | Spec          | Test Method |
| <b>Specific Gravity</b>     | -                   | 1.050 ~ 1.150 | ASTM D-792  |
| <b>Tensile Strength</b>     | kg/cm <sup>2</sup>  | Min. 250      | ASTM D-638  |
| <b>Surface Resistivity</b>  | EΩ /sq              | E4 ~ E6       | ASTM D-257  |
| <b>Melt Index</b>           | g/10 Min            | 0.80 ~ 1.20   | ASTM D-1238 |
| <b>Flexural Strength</b>    | kgf/cm <sup>2</sup> | Min. 350      | ASTM D-790  |
| <b>Flexural Modulus</b>     | kgf/cm <sup>2</sup> | Min. 18,000   | ASTM D-790  |
| <b>Izod Impact Strength</b> | kg cm/cm            | Min. 20       | ASTM D-256  |
| <b>HDT 66psi</b>            | °C                  | Min. 105      | ASTM D-648  |
| <b>Appearance</b>           | -                   | Black Pellets | -           |

# ALI Conductive Tiles



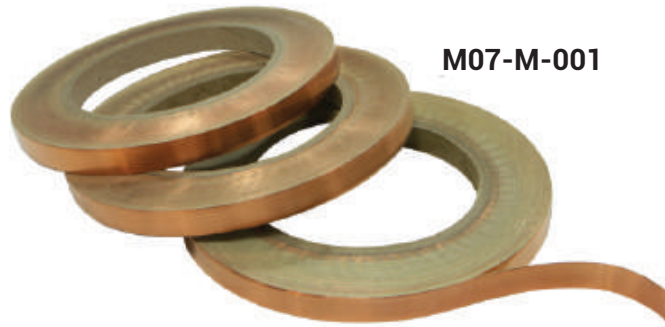
HK-1103

HK-1109

HK-1203

- Conductive & Static Dissipative Tiles route and drain static electricity charges away from electronic components and equipment.
- The electrical properties are permanent and are not affected by humidity variations in the environment.
- High contents of vinyl compound and our high pressure manufacturing process provide excellent durability, wear, and chemical resistance.
- The tiles are directly installed on the ground floor with a conductive adhesive, cooper strips/grounding cord.
- Once the adhesive is electrically bonded to the ground, the entire installation is grounded / ESD protected.











## Installation Accessories



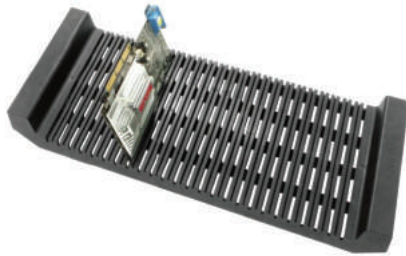
M07-M-001

| Copper Tape |                        |
|-------------|------------------------|
| M07-M-001   |                        |
| Size        | 0.038mm (T) x 10mm (W) |
| Packing     | 30m / roll             |

| Conductive Adhesive |                    |
|---------------------|--------------------|
| M10-M-001           | Carbon Fiber Type  |
| M10-M-002           | Carbon Powder Type |
| M10-M-003           | 2 Parts Epoxy      |
| M10-M-004           | PU Epoxy           |

| Welding Rod |  |
|-------------|--|
| M06-M-001   |  |
| M06-M-002   |  |
| M06-M-003   |  |
| M06-M-004   |  |
| M06-M-005   |  |
| M06-M-006   |  |
| M06-M-007   |  |
| M06-M-008   |  |
| M06-M-009   |  |
| M06-M-010   |  |

# ALI Conductive PC Rack



**M05-H-001**



**M06-H-001**

| Specifications                       |                                     |                                     |
|--------------------------------------|-------------------------------------|-------------------------------------|
| Descriptions                         | M05-H-001                           | M06-H-001                           |
| <b>Size L X W X H (mm)</b>           | 179 x 390 x 25                      | 325 x 205 x 93                      |
| <b>Surface Resistivity (Ohms/sq)</b> | 10e <sup>4</sup> ~ 10e <sup>6</sup> | 10e <sup>4</sup> ~ 10e <sup>6</sup> |
| <b>Pitch (mm)</b>                    | 16                                  | 15                                  |
| <b>Capacity (pcs)</b>                | 25                                  | 31                                  |
| <b>Weight (g)</b>                    | 500                                 | 480                                 |

# ALI Conductive Tray



| Specifications                       |                                     |                                     |                                     |                                     |
|--------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Descriptions                         | M10-H-005                           | M10-H-006                           | M10-H-007                           | M10-H-008                           |
| <b>Size L X W X H (mm)</b>           | 485 x 355 x 45 mm                   | 355 x 255 x 45 mm                   | 280 x 215 x 40 mm                   | 200 x 150 x 40 mm                   |
| <b>Surface Resistivity (Ohms/sq)</b> | 10e <sup>4</sup> ~ 10e <sup>6</sup> | 10e <sup>4</sup> ~ 10e <sup>6</sup> | 10e <sup>4</sup> ~ 10e <sup>6</sup> | 10e <sup>4</sup> ~ 10e <sup>6</sup> |
| <b>Weight (pc)</b>                   | 98g                                 | 126g                                | 246g                                | 378g                                |
| <b>Material</b>                      | Conductive PS                       | Conductive PS                       | Conductive PS                       | Conductive PS                       |



# ALI ESD Clear Notebook



| ESD Clear Note Book |  |
|---------------------|--|
| Model               | <b>M05-S-002</b>   |
| Description         | Clean Room Note Book   |
| Material            | High-density polyethylene cover, plastic spirals and durable clean paper |
| Size                | Spital / A4 (210 x 297 mm) 50 Sheets/Book                                |

| Features  |
|---|
| <ul style="list-style-type: none"> <li>• Easy to wrtite on</li> <li>• Tear resistant</li> <li>• Translucent cover allows the reader to easily identify the notebook’s content</li> <li>• Spiral design allows the notebook to lie flat and stay open</li> </ul> |

\*Printing: Plaese refer to the image above

# ALI Electric Tape Dispenser



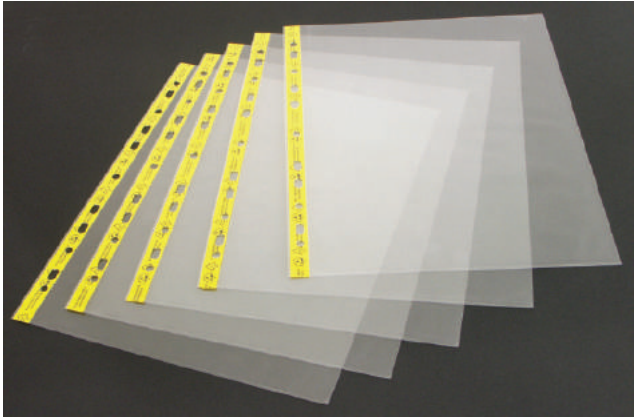
## General Information

- Ideal for multi-operator applications
- Allows up to 20 pieces of tape to be cut at a touch of a button
- Unique feed system places tape on carousel for easy removal
- Safety switch on cover

## Technical Specifications

|                                  |                                   |
|----------------------------------|-----------------------------------|
| <b>Tape Width</b>                | 3 to 25 mm                        |
| <b>Cut Length</b>                | 12 to 60 mm                       |
| <b>Max. Outside dia. of Roll</b> | 130 mm                            |
| <b>Core Diameter</b>             | 25, 32 and 76.2 mm                |
| <b>Accuracy of Cut</b>           | 1 mm                              |
| <b>Tape Cutter</b>               | Automatic                         |
| <b>Fee Type</b>                  | Carousel Type                     |
| <b>Adjustable Tape Spacing</b>   | Yes                               |
| <b>Length Setting</b>            | Mechanical (lead screw)           |
| <b>Weight</b>                    | 2.75 kg                           |
| <b>Dimensions</b>                | 30 cm (L) x 16 cm (W) x 16 cm (H) |
| <b>Electrical Requirements</b>   | AC 110V 50/60 Hz                  |

# ALI ESD Clear File

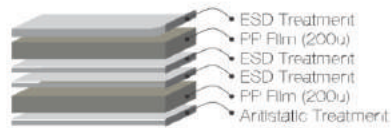


| ESD Clear File |                              |
|----------------|------------------------------|
| Model          | <b>M10-S-001</b>             |
| S/R            | 10e9 ~ 10e11 (Out side only) |
| Material       | PP                           |
| Thickness      | 0.05 mm                      |
| Size           | A3, A4, B4                   |

\*\*Custom sizes are also available

| Features                                   |
|--|
| Protect documents in cleanroom environment |

\*Printing: Please refer to the image



| ESD Document Holder with Logo |                               |
|-------------------------------|-------------------------------|
| Part Number                   | <b>M14-S-003</b>              |
| Description                   | ESD Document Holder with Logo |
| Material                      | PP                            |
| Size                          | A4                            |

| Features  |
|---|
| ESD Properties Inside and Outside Document Holder Opens on Top 1 side |

| Properties         |            | Units | Value       | Test Method |
|--------------------|------------|-------|-------------|-------------|
| Thickness          | Base Film  | µm    | 0.2 mm      |             |
|                    | PP Hotmelt | µm    | 0.2 mm      |             |
| Total Thickness    |            | µm    | 200 +/- 5   |             |
| Size               |            |       | A4          |             |
| Color              |            |       | Clear       |             |
| Surface Resistance |            | Ω/SQ  | 10e5 ~ 10e7 | ASTM D-257  |
| Triboelectricity   |            | V     | Max 300     |             |

# ALI ESD Chair



**M22-E-001**



**M22-E-003**

| Specifications                     |      | M22-E-001                                  | M22-E-003          |
|------------------------------------|------|--|--------------------|
| Materials                          | Seat | PVC + PU Film                              | PVC + PU Film      |
|                                    | Back | PVC + PU Film                              | -                  |
|                                    | Body | Aluminium + Metal with hard chrome coating |                    |
|                                    | Size | Conductive Plastic                         | Metal              |
| Color                              |      | Blue                                       | Black or Blue      |
| Surface Resistivity                |      | $10e^6 \sim 10e^8$                         | $10e^6 \sim 10e^8$ |
| Resistivity to Ground              |      | $10e^6 \sim 10e^8$                         | $10e^6 \sim 10e^8$ |
| Back Size (W X H)                  |      | 45 cm x 40 cm                              | -                  |
| Seat Size (W X H)                  |      | 48 cm x 42 cm                              | 48 cm x 42 cm      |
| Height (bottom to seat/adjustable) |      | 45 cm ~ 58 cm                              | 45 cm ~ 58 cm      |
| Cleanroom Class                    |      | 100 ~ 1000                                 | 100 ~ 1000         |

# ALI Claenroom Vacuum Cleaner



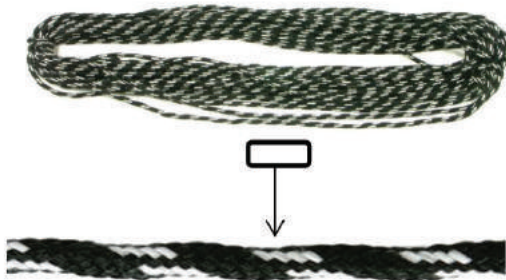
**M12-E-001**



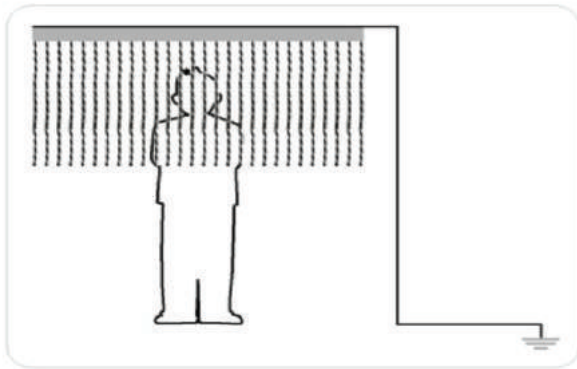
**M12-E-003**

| Specifications                | M12-E-001                                       | M12-E-003        |
|-------------------------------|---|------------------|
| <b>Vacuum Motor</b>           | 1200W 7 1.6 HP                                  |                  |
| <b>Capacity (Liter)</b>       | 40  | 60               |
| <b>Filtering Capacity (%)</b> | 99.97   | 99.99            |
| <b>Inside Filter</b>          | 3 Steps of paper                                | 4 Steps of paper |
| <b>Dimension (mm)</b>         | 350 x 650                                       | 450 x 950        |
| <b>Power</b>                  | 220 / 50 ~ 60 Hz (110V is available on request) |                  |
| <b>Net Weight (kg)</b>        | 14.3  | 16.6             |
| <b>Gross Weight (kg)</b>      | 16  | 18               |

# ALI Conductive Rope



**Description:** This conductive rope is designed to make a blind curtain for grounding the static charges built up to human body and transport equipment.



### Reference:

- Install a blind curtain at the entrance of EPA area
- Touch the rope of the curtain whenever in and out
- Static charges of human body and transport equipment will be discharged along grounding path.

| Specifications        |  |
|-----------------------|--|
| Part Number           | <b>M14-Y-001</b>   |
| Color                 | Black and White Mixed  |
| Composition           | Poly Propylene - 93%, Stainless Fiber - 7%   |
| Weight                | 9 grs/meter  |
| Diameter              | 7 mm   |
| Surface Resistivities | $10e^3$ ohm/ unit  |
| Packing               | 100 meters/ hank   |
| Application           | <ul style="list-style-type: none"> <li>• Storage of ESD sensitive products</li> <li>• Entrance of assembly line</li> <li>• EPA area</li> </ul> |

# ALI ESD PET Film



| Specifications          |          |                      |                    |
|-------------------------|----------|----------------------|--------------------|
| Properties              |          | Unit                 | Value              |
| Film                    |          | -                    | ESD PET            |
| Thickness               | Backing  | $\mu\text{m}$        | $100 \pm 2$        |
|                         | Adhesive | $\mu\text{m}$        | $20 \pm 3$         |
| Color                   |          | -                    | Clear              |
| Adhesion                |          | gf/25mm              | $20 \pm 3$         |
| Resistance              | Adhesive | $\Omega/25\text{mm}$ | -                  |
|                         | Backing  | $\Omega/25\text{mm}$ | $10e^5 \sim 10e^8$ |
| Electrostatic Discharge |          | sec                  | Max. 0.1           |
| Size                    |          | mm, m                | 1000mm x 100m      |

| Size and Packing Information |          |             |                    |
|------------------------------|----------|-------------|--------------------|
| Size                         | Backing  | $100 \pm 2$ | mm                 |
|                              | Adhesive | $20 \pm 3$  | mm                 |
|                              | Widths   | 1000        | mm                 |
|                              | Roll     | 100         | m                  |
| Color                        | Clear    |             | -                  |
| Material of the film         | ESD PET  |             | $10e^5 \sim 10e^8$ |
| Material of the core         | Plastic  |             | -                  |
| Core Diameter                | 3        |             | inch               |

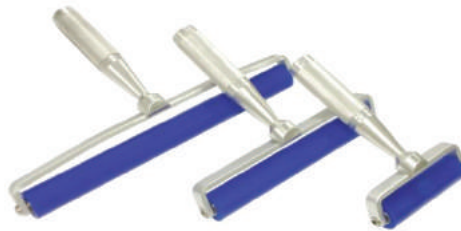
Antistatic Treatment  
 PET Film (50 $\mu\text{m}$ , 75 $\mu\text{m}$ , 100 $\mu\text{m}$ , etc.)  
 Antistatic Treatment

# ALI Silicon Rubber Roller and DCR-Pad for Clean Rooms



## General Information

|                    |                           |       |                  |    |              |     |               |
|--------------------|---------------------------|-------|------------------|----|--------------|-----|---------------|
| <b>Materials</b>   | Shaft (All Models)        |       | SUS304           |    |              |     |               |
|                    | Handle (M15-C-005 to 008) |       | ABS              |    |              |     |               |
|                    | Handle (M15-C-009 to 012) |       | Stainless        |    |              |     |               |
|                    | Rollers (All Models)      |       | Silicon Rubber   |    |              |     |               |
|                    | 1                         | 2     | 3                | 4  | 5            | 6   | 7             |
| Adhesive (%)       | 0                         | 20    | 40               | 60 | 80           | 100 | 120           |
| Hardness           | 40-50                     | 40-50 | 40               | 30 | 20           | 15  | 12            |
|                    | <b>Part Number</b>        |       | <b>Dia. (mm)</b> |    | <b>Width</b> |     | <b>Length</b> |
| <b>Sticky Type</b> | M15-C-001                 |       | 5                |    | -            |     | 120 mm        |
| <b>Handy Type</b>  | M15-C-005                 |       | 30               |    | 150 mm       |     | 150 mm        |
|                    | M15-C-008                 |       | 30               |    | 300 mm       |     | 150 mm        |
| <b>Floor Type</b>  | M15-C-009                 |       | 50               |    | 250 mm       |     | 1~2 mm        |
|                    | M15-C-010                 |       | 50               |    | 300 mm       |     | 1~2 mm        |
|                    | M15-C-011                 |       | 50               |    | 500 mm       |     | 1~2 mm        |
|                    | M15-C-012                 |       | 50               |    | 600 mm       |     | 1~2 mm        |



|                           |  |                       |
|---------------------------|--|-----------------------|
|                           | <b>Adhesive Paper</b>  | <b>Release Paper</b>  |
| <b>Materials</b>          | Paper, Adhesive  | Paper                 |
| <b>Adhesion (gf/25mm)</b> | 1,250 ± 100  | -                     |
| <b>Weight</b>             | 88.80 g/m <sup>2</sup>   | 98.40g/m <sup>2</sup> |
| <b>Thickness</b>          | 80 um/ sheet   | 117 um/sheet          |
| <b>Size</b>               | 330mm x 240mm (Adhesive Area: 330mm x 180mm)<br>165mm x 240mm (Adhesive Area: 165mm x 180mm) |                       |
| <b>Packing</b>            | 50 sheets / pad, 5 pads/inner box,<br>5 inner boxes/ outer carton                            |                       |
| <b>Total Thickness</b>    | 13.00mm/ pad (50 sheets)   |                       |
| <b>Total Weight</b>       | 860g/ pad, 24.5 kgs/ carton (25 pads)  |                       |



# ALI Sticky Mat for Cleanroom



**Part Number: M01-C-146-B**

| General Information |  |
|---------------------|--|
| <b>Description</b>  | Sticky Mat                                       |
| <b>Packing</b>      | 6 Mats/ Case, 8 Mats/ Case, 10 Mats/ Case        |
| <b>Size</b>         | 18" x 36", 18" x 45", 24" x 36", 26" x 45", etc. |
| <b>Color</b>        | Blue, Grey, White, Semi-Transparent              |
| <b>Material</b>     | LDPE, Acrylic Ester Copolymer                    |

|                            | Unit                            | Specifications                                       | Test Methods     |
|----------------------------|---------------------------------|--|------------------|
| <b>Dimension</b>           | Thickness (mm)                  | 0.045 ± 0.005 (Standar)<br>0.035 ± 0.005 (Thin Film) | Mitutoyo ID-C112 |
|                            | The Number of Sheets            | 30 + Double Adhesive Sheet + Each Cover Sheet        |                  |
| <b>Adhesive (gf/25mm)</b>  | Adhesive Strength               | 190(L)/ 250(M)/ 300(H) ± 50                          | Kyung-Jin K-OPC  |
|                            | 1st. Adhesive Strength (Back)   | 250 (L)/ 120(M)/ 120(H) ± 50                         |                  |
|                            | 2nd. Adhesive Strength (Ground) | 700(L,M,H) ± 100                                     |                  |
| <b>Tensile Strength</b>    | Width (kg/sqcm)                 | 150 or more  | Shimadsu-AGS-D   |
|                            | Length (kg/ sqcm)               | 150 or more  |                  |
| <b>Elongation</b>          | Width (%)                       | 250 or more  | Shimadsu-AGS-D   |
|                            | Length (%)                      | 250 or more  |                  |
| <b>External Appearance</b> | Bubble                          | Dia. 5mm or bigger x 10/pad or less                  |                  |
|                            | Pleat                           | Length 10mm or larger x 5/pad or less                |                  |

- \*L: Low Tack
- \*M: Midium Tack
- \*H: High Tack

# ALI ESD Marking Tape with Printings



**Part Number: M04-T-000**

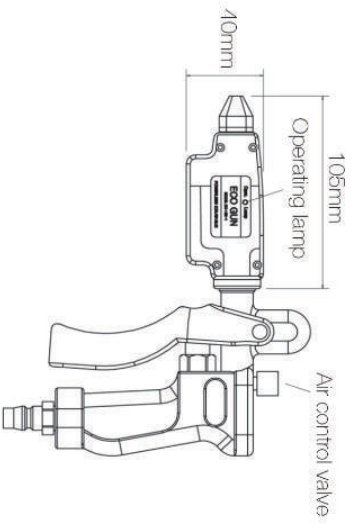
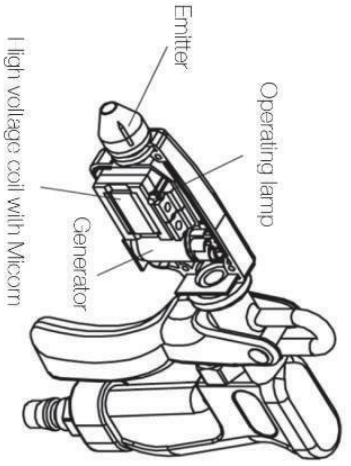
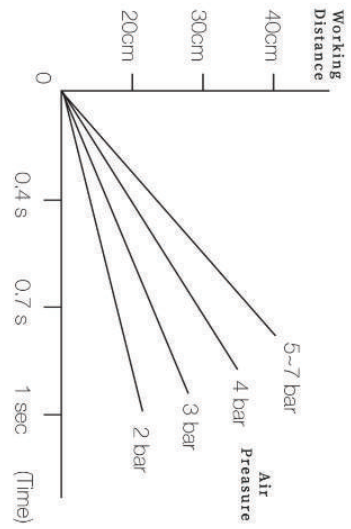
| Description   | Application  |
|---|--|
| PET laminated PVC tape with printings and antistatic treatment on both sides.   | <ul style="list-style-type: none"> <li>• Indication of "ESD Protected Area", "ESD Controlled Area" or "ESD Safe Area"</li> <li>• Various Colors Available</li> <li>• ESD Markings on Tape</li> </ul> |
| Features  |  |
| <ul style="list-style-type: none"> <li>• Antistatic Treatment • PET (15µm)</li> <li>• ESD logo printed PVC (100µm)</li> <li>• Antistatic Acrylic Adhesive (30µm)</li> </ul> |  |

| Specifications      |                        |               |                     |                                 |
|---------------------|------------------------|---------------|---------------------|---------------------------------|
|                     | Properties             | Unit          | Value               |                                 |
| Physical properties | Film Type              | -             | Antistatic PVC Film |                                 |
|                     | Adhesive Type          | -             | Antistatic Acrylic  |                                 |
|                     | Total Thickness        | µm            | 155 ± 10            |                                 |
|                     | Color                  | -             | Green, Yellow, Blue |                                 |
|                     | Size                   |               |                     |                                 |
|                     | Strength of Adhesive   | gf/ inch      | Min 500             |                                 |
|                     | S/R                    | Adhesive Face | Ω25cm               | 10e <sup>8</sup> ~ <sup>9</sup> |
|                     |                        | Backing Face  |                     | 10e <sup>6</sup> ~ <sup>8</sup> |
|                     | Static Decay Time      | Sec           | Max 0.1             |                                 |
|                     | Peeling Static Voltage | V             | Min 100             |                                 |
| Size                | Width                  | 1", 2"        |                     |                                 |
|                     | Length                 | 33 Meters     |                     |                                 |

# ALI Eco-Friendly Ion Gun

## Specifications

|                                 |                    |                    |
|---------------------------------|--------------------|--------------------|
| <b>Powerless Eco Ion Gun</b>    | <b>Part Number</b> | M39-E-002          |
| <b>Ion Mode</b>                 | <b>Color</b>       | Color              |
| <b>Decay Time</b>               |                    | 0.6 sec            |
| <b>Ion Balance</b>              |                    | (± 1,000v - 100v)  |
| <b>Recommended Air Pressure</b> |                    | Less than +, - 10v |
| <b>Working Distance</b>         |                    | 70 to 90 PSI       |
| <b>Weight</b>                   |                    | 4" ~ 20"           |
| <b>Air Hose</b>                 |                    | 7 oz               |
|                                 |                    | 3/8"               |
| <b>Country of Origin</b>        |                    | Japan              |



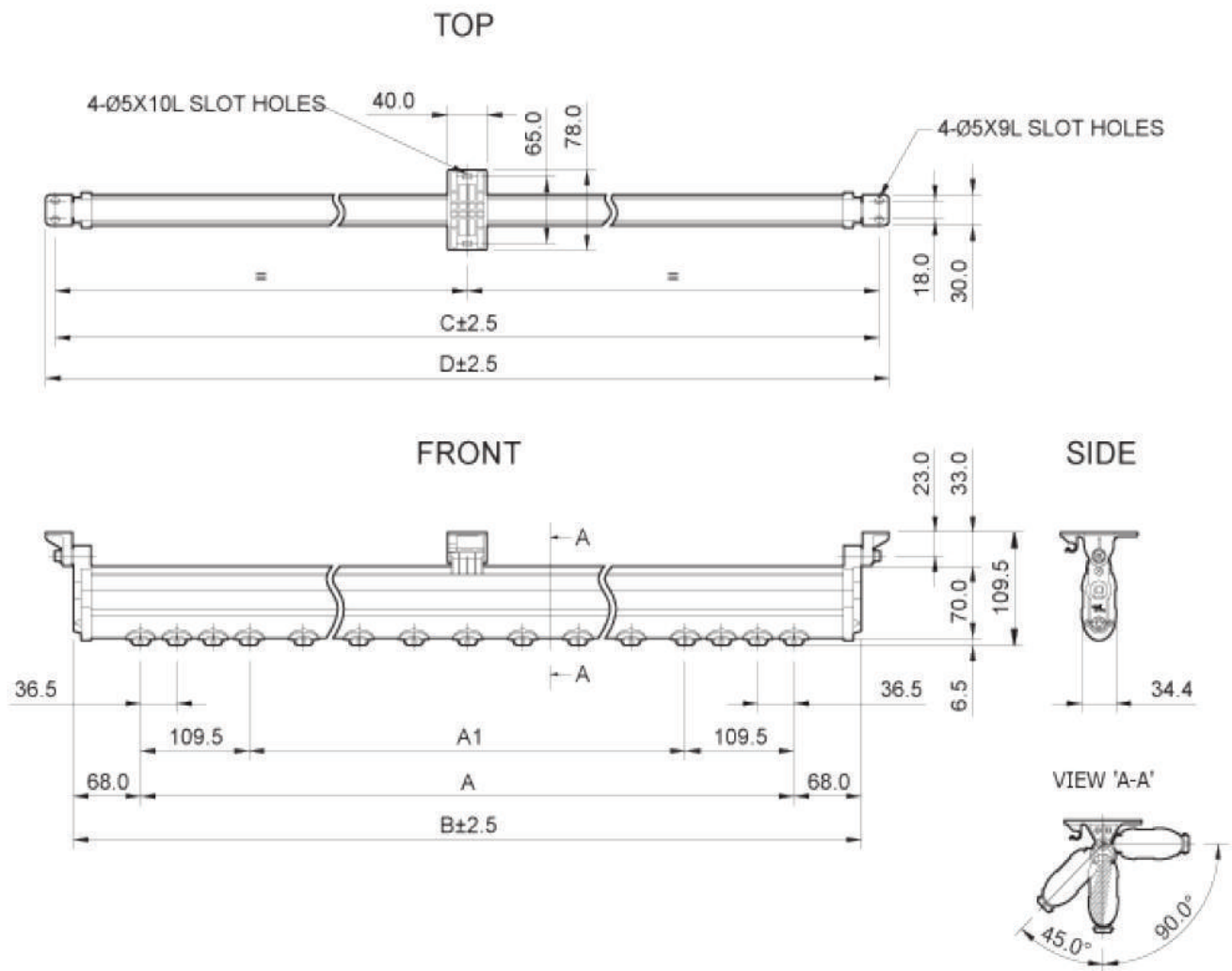
\*Do not use ion gun continuously by typing the trigger with a cable tie or any other mechanism.  
**Eco-Friendly, Eliminates the Need for a Power Supply, Light Weight, Flow Control Valve**

# ALI Ion Bar



| Specifications            |   |                                      |
|---------------------------|---|--------------------------------------|
| Model                     | Description                                 | Remark                               |
| Input Power               | DC24V (±5%) 1A                              | RJ45                                 |
| Power Consumption         | Max. 12W                                    | -                                    |
| Ion-Generation Method     | Corona Discharge Pulse AC                   |                                      |
| Air Purge Supply Pressure | 1~5 kgf/ cm <sup>2</sup>                    | CDA<br>(Clean Dry Air), N2           |
| Air Purge Connection Port | Pipe Tap 1/8"                               |                                      |
| Ion Balance               | Within ± 30V                                | 1000 mm                              |
| Ozone (O3) Concentration  | ≤0.05 ppm                                   |                                      |
| Main Body Material        | Non-Flammable ABS                           | Level V0                             |
| Electrode Material        | Tungsten/ Titanium/Poly Silicon/ X-Material |                                      |
| Emitter Replacement       | Cartridge Type                              |                                      |
| Operation Circumstance    | 0 ~ +50 (32~122) 35% ~85% RH                |                                      |
| Dimensions                | See the accompany drawing paper             |                                      |
| Mounting Method           | Ceiling                                     |                                      |
| Function                  | Remote Control                              |                                      |
| Adjust Function           | Frequency (Hz)                              | 0.1, 0.3, 1, 3, 5, 8, 10, 20, 30, 50 |
|                           | Duty Ratio (%)                              | 40 ~70                               |
|                           | Voltage (Level)                             | Positive 1~10, Negative 1~10         |
| Alarm Function            | HV Abnormal Alarm, Low Ion Alarm, Tip       |                                      |
| Interface                 | Run State, Remote, Interlock, RS485         | RJ45                                 |
| Operating Distance        | 50~2,000 mm                                 |                                      |
| Option                    | RMS (Real Monitoring System)                |                                      |
|                           | SBP-RD (AC to DC Power Supply)              |                                      |

# ALI Ion Bar Dimensions



## Dimensions

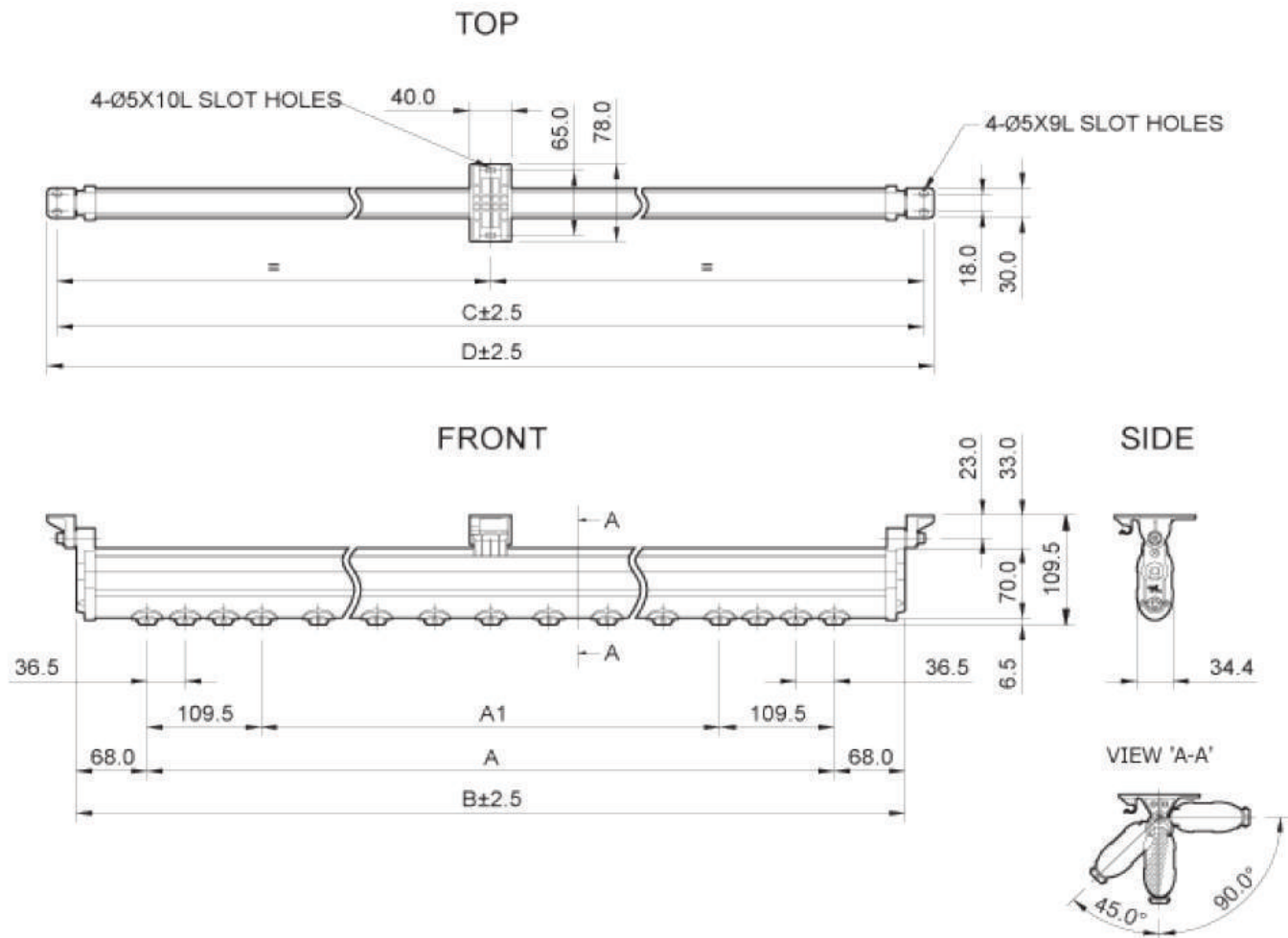
| Part Number      | Tip Qty | "A" | "A1" | "B" | "C" | "D" |
|------------------|---------|-----|------|-----|-----|-----|
| <b>M07-E-005</b> | 17      | 769 | 550  | 906 | 942 | 962 |

# ALI Ion Bar



| Specifications            |   |                                      |
|---------------------------|---|--------------------------------------|
| Model                     | Description                                 | Remark                               |
| Input Power               | DC24V (±5%) 1A                              | RJ45                                 |
| Power Consumption         | Max. 12W                                    | -                                    |
| Ion-Generation Method     | Corona Discharge Pulse AC                   |                                      |
| Air Purge Supply Pressure | 1~5 kgf/ cm <sup>2</sup>                    | CDA                                  |
| Air Purge Connection Port | Pipe Tap 1/8"                               | (Clean Dry Air), N2                  |
| Ion Balance               | Within ± 30V                                | 1000 mm                              |
| Ozone (O3) Concentration  | ≤0.05 ppm                                   |                                      |
| Main Body Material        | Non-Flammable ABS                           | Level V0                             |
| Electrode Material        | Tungsten/ Titanium/Poly Silicon/ X-Material |                                      |
| Emitter Replacement       | Cartridge Type                              |                                      |
| Operation Circumstance    | 0 ~ +50 (32~122) 35% ~85% RH                |                                      |
| Dimensions                | See the accompany drawing paper             |                                      |
| Mounting Method           | Ceiling                                     |                                      |
| Function                  | Remote Control                              |                                      |
| Adjust Function           | Frequency (Hz)                              | 0.1, 0.3, 1, 3, 5, 8, 10, 20, 30, 50 |
|                           | Duty Ratio (%)                              | 40 ~70                               |
|                           | Voltage (Level)                             | Positive 1~10, Negative 1~10         |
| Alarm Function            | HV Abnormal Alarm, Low Ion Alarm, Tip       |                                      |
| Interface                 | Run State, Remote, Interlock, RS485         | RJ45                                 |
| Operating Distance        | 50~2,000 mm                                 |                                      |

# ALI Ion Bar Dimensions



| Dimensions       |         |      |      |      |      |      |
|------------------|---------|------|------|------|------|------|
| Part Number      | Tip Qty | "A"  | "A1" | "B"  | "C"  | "D"  |
| <b>M07-E-008</b> | 23      | 1099 | 880  | 1236 | 1272 | 1292 |

# ALI SRB Series - Room Ionizer



## Components

Ion Bar (2)  
 Power Controller  
 Ground Cable (3)  
 Middle Brackets (0~39)  
 Signal Cable  
 Output Cable (2)  
 Power Cable

## Optional Components

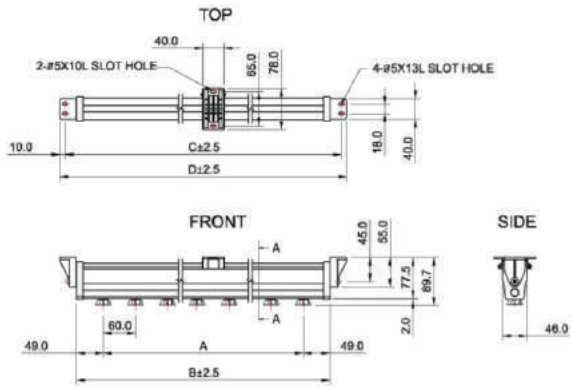
RMS Controller  
 URP Cable

## Specifications

| Model                          | Description                            |                                    |
|--------------------------------|--|------------------------------------|
| Input Power                    | AC 100~240V, 50/60 Hz                  |                                    |
| Power Consumption              | Max. 15W                               |                                    |
| Current Consumption            | Max. 68 mA, AC 220v                    |                                    |
| Ion-Generation Method          | Corona Discharge Pulse AC              |                                    |
| Main Body Material<br>Level V0 | SRB Series                             | Non-Flammable ABS                  |
|                                | SRC - 2P                               | EI                                 |
| Electrode Material             | Tungsten                               |                                    |
| Emitter Replacement            | Cartridge Type                         |                                    |
| Operation Circumstance         | 0°C ~ +50°C (32°F~122°F) 35% ~85% RH   |                                    |
| Dimensions                     | SRB Series                             | See Drawing                        |
|                                | SRC-2P (with bracket)                  | 190.0 (W) x 81.0 (H) x             |
| Function                       | Remote Control                         |                                    |
| Adjust Function                | Period (Sec)                           | Positive 1 ~10, Negative 1 ~ 10    |
|                                |  | 40 ~70                             |
|                                | Voltage (Level)                        | Positive 4~11 KV, Negative 4~11 KV |
| Alarm Function                 | HV Abnormal                            |                                    |
| Interface (RJ45)               | Run Stop, RS-485, Alarm (H/V Abnormal) |                                    |
| Warranty                       | 1 year                                 |                                    |

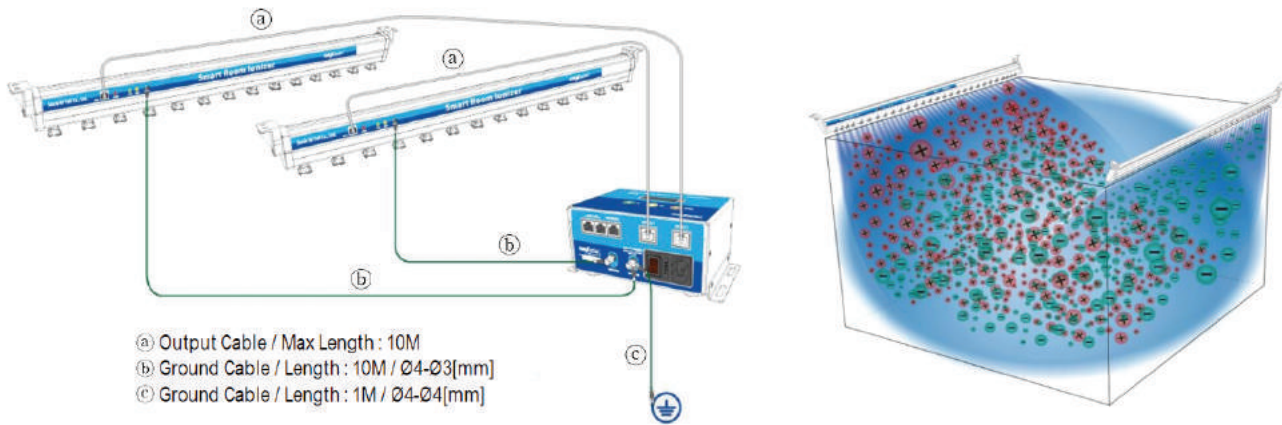


# ALI SRB Series - Room Ionizer



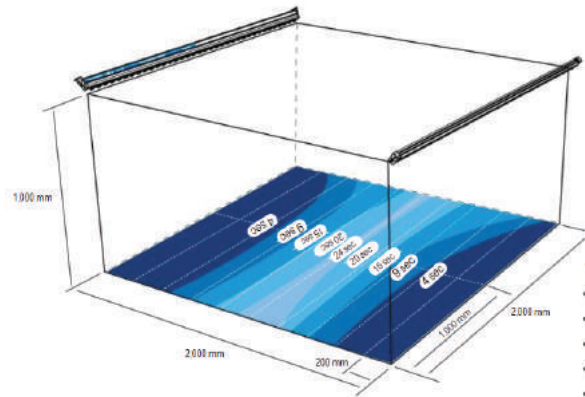
| Dimensions  |         |      |      |      |      |                    |
|-------------|---------|------|------|------|------|--------------------|
| Part Number | Tip Qty | A    | B    | C    | D    | Middle Bracket Qty |
| M08-E-1100  | 18      | 1020 | 1118 | 1160 | 1180 | -                  |
| M08-E-1200  | 20      | 1140 | 1238 | 1280 | 1300 | -                  |
| M08-E-1300  | 22      | 1260 | 1358 | 1400 | 1420 | -                  |
| M08-E-1500  | 24      | 1380 | 1478 | 1520 | 1540 | 1                  |
| M08-E-1600  | 26      | 1500 | 1598 | 1640 | 1660 | 1                  |
| M08-E-1800  | 30      | 1740 | 1838 | 1880 | 1900 | 1                  |
| M08-E-2100  | 36      | 2100 | 2198 | 2240 | 2260 | 2                  |
| M08-E-2200  | 38      | 2220 | 2318 | 2360 | 2380 | 2                  |
| M08-E-2300  | 39      | 2280 | 2378 | 2420 | 2440 | 2                  |
| M08-E-2500  | 43      | 2520 | 2618 | 2660 | 2680 | 3                  |
| M08-E-3000  | 50      | 2940 | 3038 | 3080 | 3100 | 3                  |
| M08-E-3200  | 53      | 3120 | 3218 | 3260 | 3280 | 3                  |

## Decay Time Characteristics



## Test Conditions

| Model                    | M08-E-2100                             |
|--------------------------|--|
| Output Time              | Positive(+) 1 sec, Negative(-) 1 sec.  |
| Output Voltage           | Positive (+) 11kV, Negative (-) 7.5 kV |
| Decay Time               | ±1,000V to ±100V                       |
| Charge Plate Capacitance | 20pF (150 x 150mm) Trek 156A1          |



# ALI Overhead Ion Blower



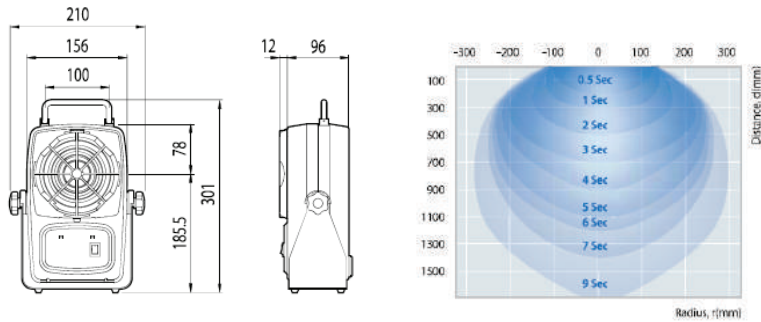
| Categories                                      | Description  |                          |                           |                           |
|---|--|--------------------------|---------------------------|---------------------------|
| <b>Item Code</b>                                | M03-E-005  | M-03-E-006               | M03-E-023                 | M03-E-024                 |
| <b>Input Power</b>                              | AC100~230v, 50/60 Hz   |                          |                           |                           |
| <b>Power Consumption (Max. Fan Speed)</b>       | 62W  | 77W                      | 88W                       | 99W                       |
| <b>Ion-Generation Method</b>                    | Steady-State DC  |                          |                           |                           |
| <b>Air Blow Volume</b>                          | 9.68 m <sup>3</sup> /min   | 14.52m <sup>3</sup> /min | 19.36 m <sup>3</sup> /min | 24.20 m <sup>3</sup> /min |
| <b>Noise Level (dB), 1000mm, High fan speed</b> | 63dB   | 64dB                     | 65dB                      | 67dB                      |
| <b>Ion Balance (at 600mm, Max air flow)</b>     | Within ±2V   |                          |                           |                           |
| <b>Ozone(O3) Concentration at 300mm</b>         | ≤0.005 ppm   |                          |                           |                           |
| <b>Operation Circumstance</b>                   | 0°C~ +50(32°F ~ 122°F), 35% ~85% RH                                |                          |                           |                           |
| <b>Material (Main Body)</b>                     | Aluminum   |                          |                           |                           |
| <b>Material (Electrode)</b>                     | Tungsten/ Titanium   |                          |                           |                           |
| <b>Mounting Method</b>                          | Ceiling, Desk-Top, Self-Standing                                   |                          |                           |                           |
| <b>Function</b>                                 | Remote Control, 4 Steps Fan speed, Tip Cleaning, Buzzer On/Off     |                          |                           |                           |
| <b>Alarm Function</b>                           | Ion Unbalance Alarm, Alarm Buzzer                                  |                          |                           |                           |
| <b>Interface</b>                                | Run State, Remote On/Off, RS485, Alarm (IonUnbalance) Tip Claening |                          |                           |                           |
| <b>Option</b>                                   | RMS (Real Monitoring System)                                       |                          |                           |                           |
| <b>Weight</b>                                   | 4.8 Kg   | 6.7 Kg                   | 8.6 Kg                    | 10.5 Kg                   |
| <b>Size (W x L x D) mm</b>                      | 180 x 670 x 98   | 180 x 1000 x 98          | 180 x 1200 x 98           | 180 x 1500 x 98           |

# ALI Desk Top on Blower

- Ion Balance within  $\pm 30V$  (at 60cm distance, max fan speed)
  - One touch front fan cover off for tip cleaning
- Various input voltages (AC 110/220, 50/60Hz, DC 24V)
  - ACtype



**M02-E-006**



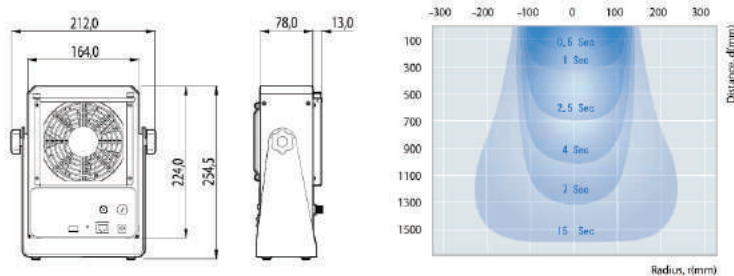
**Basic Component**

|             |  |    |                     |
|-------------|--|----|---------------------|
|             |  | or |                     |
| <b>Body</b> | <b>Power Cable</b>   |    | <b>Ground Cable</b> |
| 1ea         | AC 110V, 50~60Hz / 1.8m / 1ea<br>AC 220V, 50~60Hz / 1.8m / 1ea |    | 1m / 60, 40 / 1ea   |



**M02-E-008**

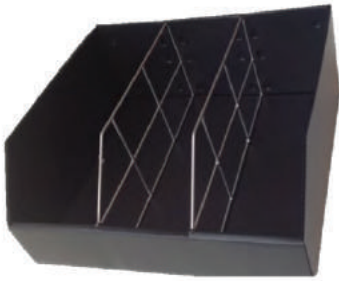
- Ion Balance within  $\pm 2V$  (at 60cm distance, max fan speed)
  - EMI (Electro-Magnetic Interference) and EMS (Electro-Magnetic Susceptibility)
    - Automatic tip cleaning function
- Various interfaces with automated factories (PLC, Computer)
  - Ion bar graph (LED)
  - RMS (Real Monitoring System)



|                        |  |                                    |                     |                             |                       |                     |
|------------------------|--|------------------------------------|---------------------|-----------------------------|-----------------------|---------------------|
| <b>Basic Component</b> |  |                                    |                     | <b>Additional Component</b> |                       |                     |
|                        |  |                                    |                     |                             |                       |                     |
| <b>Body</b>            | <b>Adapter</b>   | <b>Power Cable</b>                 | <b>Ground Cable</b> | <b>UTP Cable (Option)</b>   | <b>RMS Controller</b> | <b>Single Cable</b> |
| 1ea                    | INPUT:100~240VAC / 50~60Hz<br>OUTPUT:DC24V<br>3m / 1ea | AC 100~240V, 50/60Hz<br>1.8m / 1ea | 1m / 60, 40 / 1ea   | 10m / 1ea                   |                       |                     |

# ALI Conductive Corrugated Plastic Box

**Stackable ESD Box with Wire Mesh Dividers**



**Stackable ESD Boxes**



## Features

- Customizable
- Made to specific customer spec.
- Permanent Conductive Properties
  - Durable
  - Stackable
- Ultrasonic Welding
- Fast Delivery

**ESD Box with Lid**



**ESD Box with Plastic Dividers**

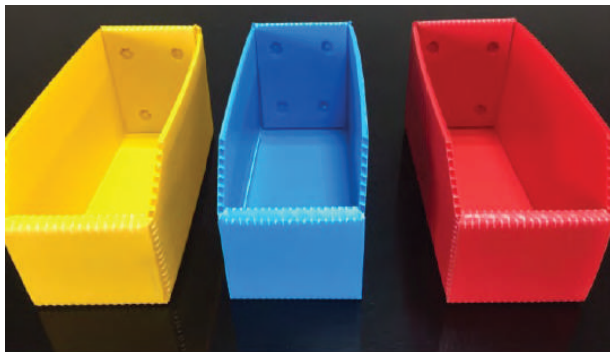


**ESD Box with Molded Handles**



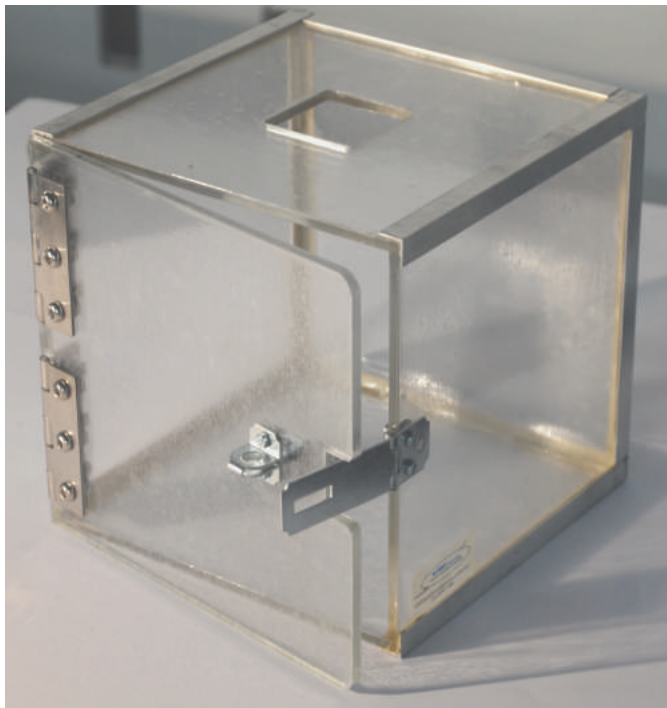
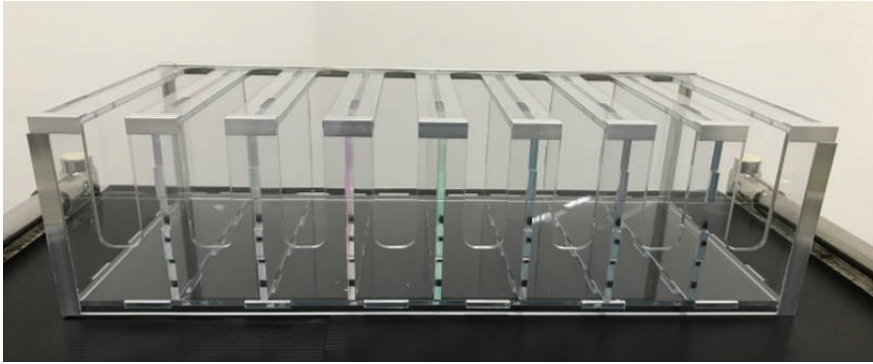
# ALI Non ESD Custom Made Plastic Boxes

**Regular Customizable Corrugated Plastic Bins**



Let us know what sizes you need,  
We will make it & make it right.

# ALI Acrylic Box



## Features

- Customizable
- Made to specific customer spec.
- Permanent Conductive Properties
  - Durable
  - Stackable
- Ultrasonic Welding
  - Fast Delivery
  - Laser Cut

# ALI Automation Equipment



MT4B

## Features

- Long Life and reliability
- Prism-cut lenses for even light distribution
- Surface, Pole or Wall Mounted (Order poles and bases separately)
  - Wire leads
  - IP54 rated
- MT4B Approvals - CE, UL, Rotts
- MT5B/8B Approvals - UL, Rotts



MT5C

## Automatic Guided Vehicle (AGV)



## Features

- Magnetic navigation system
- Load weight up to 200 kgs
  - Speed up to 30m/min
- Multi-station (RFID card) parking
  - Easy battery replacement
  - Auto charge station
- 8 Continuous working hours

## Precision Screw Feeder



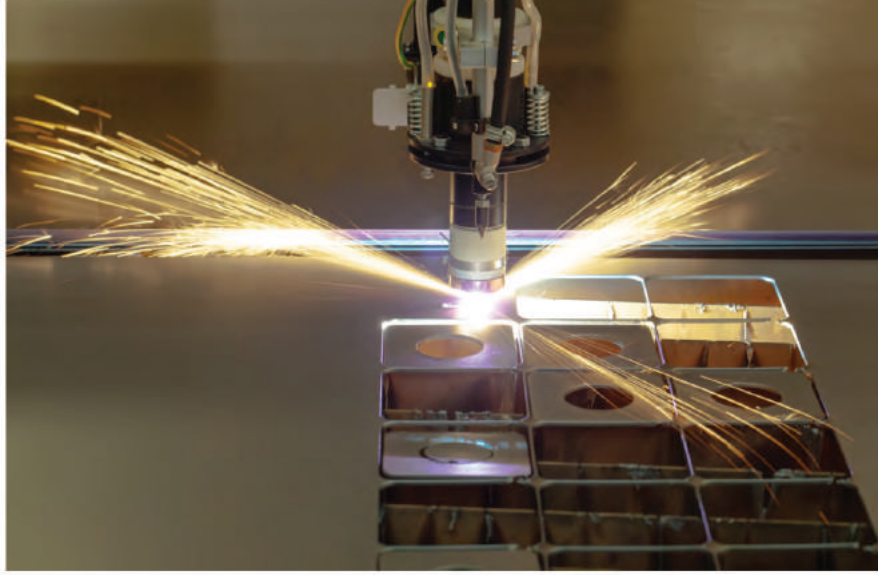
## Applicable Rails

| Model Type | Applicable Screw Diameter | Applicable Rail |
|------------|---------------------------|-----------------|
| FM36       | 3.0mm                     | FR-30           |
|            | 3.5mm                     | FR-35           |
|            | 4.0mm                     | FR-40           |
|            | 5.0mm                     | FR-50           |
|            | 6.0mm                     | FR-60           |

\*Please specify the applicable rail N. at the time of purchase.

\*A rail comes with a rotary escaper.

# ALI Plasma Cutting Technology Services



**Mild Steel** from 26 GA to 1-1/4" thickness  
**Aluminum** from 1/32" to 1" thickness  
**Stainless Steel** from 26 GA to 1-3/4" thickness

## Laser Cutting Technology Services

- Acrylic
- Wood
- Leather
- Plastics
- MDF
- Cardboard
- Paper
- Foam
- Fiberglass
- Rubber



# ALI, INC.



## **USA Office**

465 East Carmel Street  
San Marcos, CA 92078

(760) 510-1072 Tel  
(760) 304-8186 Fax

[info@ameri-links.com](mailto:info@ameri-links.com)

