

## ME-2101 RFID Portal Isolation Curtains

Effectively reduces microwave signal leakage, and portal isolation issues



Our ME-2101 RFID portal isolation curtains are extremely flexible allowing for broadband performance in packages under 0.20 inch (0.51 cm) thickness.

These RFID Portal Isolation Curtains utilize two layers of panels. Both the exterior panels and the interior ones contain an RF reflective ground plane to reject outside RFID signals and maintain RF suppression inside the area being treated. Our technology is more effective in isolating the RFID read area from outside areas than any competitive product.

*An optional clear window section is available for larger curtains, allowing for line of sight & safe passage.*

### APPLICATIONS

- RFID Isolation on Conveyor belt readers
- Wideband EMI Isolation
- For applications with light weight packages that might be displaced
- For situations where crosstalk inside the portal is not an issue
- For larger RFID portals where cost is a major factor

### FEATURES

- Minimum of -80 dB Isolation from 100 MHz to 26 GHz
- Custom designed slits for package transport through curtains
- Both exterior and interior panels contain high performance isolation material for signal isolation
- Durable Outer Surfaces
- High Wear resistance
- Tear Resistant
- High Tensile Strength
- POL (Petroleum, Oil, Lubricant) Resistant
- Custom cut and fit to RFID Conveyor size – top mount grommets

## GENERAL SPECIFICATIONS

### Construction

#### Interior panels

Single sided absorber composite flexible panel, consisting of resistive materials, separators and ground plane. Encapsulated in a durable waterproof outer cover of urethane coated nylon

#### Exterior panels

Dual sided isolation composite flexible panel, consisting of multiple ground plane and separators. Encapsulated in a durable waterproof outer cover of urethane coated nylon

#### Size:

Custom made to meet requirement.

#### Thickness:

Typically 0.20 inches (0.51 cm)

#### Weight:

Typically less than 0.5 lbs. per square foot (2.4 kg/m<sup>2</sup>)

#### Color:

Gray standard (other available: blue, green, red, black, etc.)

### Mechanical Properties

#### Effects of Liquids - Oil:

No adverse effects after 1000 hours (ASTM-B-117)

#### Effects of Liquids - Water:

Less than 6% increase in volume (ASTM-D-471)

#### Hydrostatic Resistance:

No water leaks after 20-min./15 psi (ASTM-D-751)

### Electrical Performance

#### Isolation:

More than -90 dB when closed

### Installation notes:

Our Portal Isolation Curtains are custom sewn to your specifications. Curtains should be measured carefully and just touch the belt without product on them. We suggest they overlap and be attached to both outer sides of the portal to allow for optimal RFID seal. We can include design details (notches in the side panels, varying panel length, etc.) to allow for adequate seal and maximum signal isolation.