

## MAC-8101-RFID

### Microwave absorbing RFID Portal Isolation Curtains



Based upon MWT Materials proprietary technology, our electrical absorbers utilize circuit analog technology to provide high absorption in a physically thin package. Our MAC-8101-RFID microwave absorbing RFID portal isolation curtains utilize this process, allowing for broadband performance in packages under 0.25 inch (0.64 cm) thickness.

Our thin and easy to handle RF absorbing materials afford significant savings in labor and space when compared to traditional pyramidal foam RF absorbers. They contain a RF reflective ground plane to reject outside EMF and layers of microwave absorbing materials to maintain RF suppression inside the area being treated. These materials don't require specialized tools or techniques to install.

#### APPLICATIONS

- RFID Isolation on Conveyor belt readers
- Wideband EMI Reduction & Isolation

#### FEATURES

- Minimum of -15 dB Absorption from 0.9 to 5 GHz
- Minimum of -80 dB Isolation from 100 MHz to 26 GHz
- Custom designed slits for luggage transport
- Subpart 100800-1 Single Sided, Low Band RF Absorption
- Subpart 100879-1 Composite high performance isolation material
- Durable Outer Surfaces
- High Wear
- Tear Resistant
- High Tensile Strength
- POL (Petroleum, Oil, Lubricant) Resistant
- Custom cut and fit to RFID Conveyor size – top mount grommets



## General Specifications

### Construction

#### Subpart 100800-1

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

#### Subpart 100879-1

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 0.25 inches (0.64 cm)

#### Weight:

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

#### Color:

Absorber - Black standard (others available: blue, green, red, gray, etc.)

Reflector – 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

