

MAC-6260

Mid Frequency Microwave Absorber



Based upon MWT Materials proprietary technology, our electrical absorbers utilize circuit analog technology to provide high absorption in a physically thin package. Our MAC-6260 quilted textile product utilizes this process, allowing for broadband performance in packages under 0.25 inch (0.64 cm) thickness.

Our thin and easy to handle MAC-6260 mid frequency RF absorbing material affords significant savings in labor and space when compared to traditional pyramidal foam RF absorbers. It contains an RF reflective ground plane to reject outside EMF and layers of microwave absorbing materials to maintain RF suppression inside

the area being treated.

This unique high performance EMF absorbing material can be tuned to provide broadband microwave suppression with a peak of more than -10 to -15 dB in the range between 6 GHz and 16 GHz, and isolation (front to back) in excess of -85 dB.

MAC-6260 is available with a variety of outer covers to handle various environmental conditions. From indoor (PVC outer cover) to outdoor environments (UV Stabilized acrylic coated nylon) to extreme conditions (Hypalon coated Kevlar), our products have been shown to withstand the test of time, yielding repeatable performance for over 15 continuous years with rough handling.

APPLICATIONS

- Equipment Covering and Concealment
- Extraneous Reflection Reduction on Outdoor Antenna Test Ranges
- Extraneous Reflection Reduction on RCS Test Facilities
- Low Observable

FEATURES

- Single Sided, Low Band RF Absorption
- Good Flexibility
- Corrosion Resistant
- Durable Outer Surfaces
- High Wear
- Tear Resistant
- High Tensile Strength
- Excellent Performance at Large Angles of Incidence

General Specifications

Construction: Single sided absorber composite, consisting of resistive materials, separators and ground plane material. A durable outer cover of PVC coated polyester fabric encapsulates it. It is quilted in 12" checked, single stitch pattern. The panel is sealed with vinyl cement.

Thickness: Typically .25 inches
Weight: Typically less than .45 lbs. per square foot
Color: Navy Haze Gray is standard (Other colors available - Olive Drab, Black, Red, Orange, etc.)

Mechanical Properties

Salt Fog: No adverse effects after 1000 hours (ASTM-B-117)
Effects of Liquids, Oil: Less than 6% increase in volume (ASTM-D-471)
Effects of Liquids, Water: Less than 6% increase in volume (ASTM-D-471)
Fungus: Resists, no permanent staining (ASTM-G-21)
Hydrostatic Resistance: No water leaks after 20-min./15 psi (ASTM-D-751)

Thermal Stability

Low Temperature Impact -20°F, 1.5 ft. lbs., and no adverse effects
Thermal Cycles: 10 cycles, 1 hr/-20°F - 1 hr/70° F, no adverse effects
Visual Defects: Uniform surface texture and appearance
Hazardous Material: None

Electrical Properties

Electrical Performance: -15dB from 6-16 GHz absorption (as tested at 15° normal incidence) and isolation (front to back) in excess of -85 dB.

Performances are stated in either polarization.

