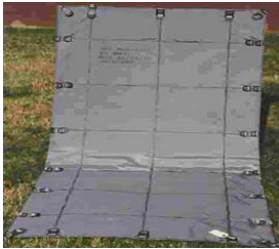


MAC-6400

Flexible High Frequency Micro/Millimeter Wave 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-6400 high frequency micro/millimeter wave absorber quilted textile product utilizes this process, allowing for broadband performance in packages under 0.25 inch (0.64 cm) thickness.

It is thin and easy to handle. 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 high-band microwave suppression with a minimum of -15 dB Absorption from 20 to 100 GHz.

MAC-6400 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, high band RF absorption
- Good flexibility
- Corrosion resistant
- Durable outer cover
- High wear
- Tear resistant
- High tensile strength

General Specifications

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

Thickness: Typically less than 0.20 inches (0.51 cm)

Weight: Typically less than 3.3 oz. per square foot (1.0 kg/m²)

Color: Black is standard (Other colors available: Gray, White, 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)

Thermal Stability: Range of -40°F to 160°F

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 20-100 GHz (as tested at 15° normal incidence). Performances are stated in either polarization.

MAC-6400 Reflection Loss vs Frequency (GHz)

