

ME-2100 OC

RF Isolation Fabric with Outer Cover



ME-2100 OC is a simple solution for effective RF signal attenuation in many commercial applications. It provides -100 dB RF isolation from 100 MHz to 1 GHz and more than -70 dB to 18GHz.

ME-2100 OC is a robust RF/RFID isolation material with a durable urethane or acrylic coated nylon pack cloth outer cover. The cover is water resistant and therefore washable using most hard surface cleaners. Optionally, the seams can be treated to allow for outdoor use in wet environments.

Shapes can be fabricated for any application to contain RF/RFID signals. Panels can be attached to a frame (such as a commercially available welders frame or a custom frame design) or hung on from a supporting rod.

TYPICAL APPLICATIONS:

- RFID signal isolation and reduction of crosstalk from one area to another
- Security uses, including RF shielding to prevent the use of cellular telephones and other communication devices (including covert ones) in selected areas.
- Construction of RF quiet zones for scientific and developmental research.
- Isolation of noisy RF sources (such as microwave ovens) to protect sensors and receivers.
- Isolation of cell tower transmitters to protect building inhabitants.
- RF shielding for medical instrumentation in hospitals and medical facilities.
- Wideband EMI Shielding.

FEATURES:

CONSTRUCTION:

ME-2100 OC is an effective RF/RFID isolation material with a durable urethane or acrylic coated nylon pack cloth outer cover and is manufactured to the customer's size and shape requirements. Seams can be waterproofed for outdoor applications. Grommets, Velcro or D rings can be added at customer request.

SIZE:

ME-2100 OC is made to order as per customer requirements and should not be cut.

COLOR:

ME-2100 OC is supplied in black or grey (custom colors are available).

MECHANICAL PROPERTIES (ME-2100):

Substrate	Dual layer metalized textile encapsulated in outer cover
Basis Weight	12-14 oz. /yard ²
Thickness	0.05 in (0.0127 cm)
Weight	Typically less than 0.1 lbs./ft ² (0.45 kg/m ²)
Thermal Stability	Range of -40°F to 160°F
Elongation MD	9% (per ASTM D5035)
Tensile Strength	7.5 /18.5 lb. /in (CMD / MD)
Hazardous Material	None
Visual Defects:	Uniform surface pattern and appearance
Thermal Cycles:	10 cycles, 1 hr/-20°F - 1 hr/70° F, no adverse effects
Low Temperature Impact:	-20°F, 1.5 ft. lbs., and no adverse effects
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)

PERFORMANCE (ME-2100 and ME-2100 OC):

-100 dB RF isolation from 100 MHz to 1 GHz

Greater than -70 dB RF isolation from 1 GHz to over 18 GHz

Nail, screw and staple punctures have no effect on signal attenuation