

C-RAM™ MT

Lossy, carbon filled, flexible foam sheet stock

Description

C-RAM™ MT is a series of flexible, lightweight lossy polyurethane foam sheet material.

Material is carbon loaded and therefore, electrically conductive.

Low cost solution for many applications.

C-RAM™ MT is available in several grades with varying levels of carbon loading.

Availability

Standard sheets are 24" x 24" (610 mm x 610 mm).

Standard thickness are 1/8" (3.2 mm), 1/4" (6.4 mm), 3/8" (9.6 mm), 1/2" (12.7 mm), 3/4" (19.1 mm), 1" (25.4 mm), 1.5" (38 mm), 2.0" (51 mm), 2.5" (64 mm) and 3.0" (76 mm).

C-RAM™ MT can be supplied in other sizes, thickness or per customer specified configurations.

C-RAM™ MT can be supplied with an anti-dust clear coat (-CL) to prevent carbon fallout.

C-RAM™ MT can be supplied with a rubber coating (-RC) to prevent moisture uptake in high humidity environments or it can be wrapped in a weatherproof fabric (-W or -HCN) for outdoor use. Material can be supplied with a pressure sensitive adhesive (/PSA).



Applications

Isolation of antennas or elements by insertion loss.
Lower the Q of cavities containing any RF radiating elements.
Reduce surface currents on radiating elements.
Eliminate crosstalk between adjacent antennas.
Lining the inside of RF shielded boxes.

Instructions for use

C-RAM™ MT can be easily cut with a sharp knife, scissors, steel rule die or a waterjet machine.

C-RAM™ MT can be securely applied to a substrate or to itself using a neoprene contact adhesive when not supplied with PSA.

Typical Properties

Frequency range	≥ 500 MHz
Service temperature, °F (°C)	-40 to +250 (-40 to +121)
Density (dependent upon grade)	4 to 8 lb/ft ³
Tensile strength	12 psi
Elongation, min.	50%
Tear strength	1.5lb/inch
Fire Retardancy	UL94-HBF

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Grade	Insertion loss dB/cm (dB/inch)			Attenuation, dB/cm (dB/inch)
	1 GHz	3 GHz	10 GHz	3 GHz
MT-14	0.2 (0.5)	0.4 (1.0)	0.9 (2.2)	0.4 (1.0)
MT-16	0.7 (1.8)	1.5 (3.8)	2.0 (5.0)	1.4 (3.5)
MT-18	0.9 (2.3)	1.8 (4.0)	2.8 (7.0)	1.5 (3.7)
MT-20	1.8 (4.5)	3.2 (8.0)	5.1 (13.0)	3.0 (7.5)
MT-22	2.2 (5.5)	3.9 (10.0)	6.3 (16)	3.7 (9.5)
MT-24	3.5 (14)	11 (32)	24 (60)	11 (27)
MT-26	4.9 (19)	16 (46)	34 (89)	16 (39)
MT-28	11 (30)	20 (52)	37 (94)	17.5 (43)
MT-30	16 (40)	24 (60)	43 (110)	19 (49)

NOTE: Insertion loss measurements include the effects of surface reflections; the above values are close to, but not exactly, linear with thickness. For example, a 1/4" thick piece has somewhat more than 1/4th as much insertion loss as a 1" thick piece.

Attenuation is a measure of loss within a homogeneous material, and does not take into account any reflections at interfaces. It is independent of thickness. This is a calculated, not measured, value.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

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