



TECHNICAL BULLETIN 390-7

C-RAM FAC

HIGH PERFORMANCE CONVOLUTED ABSORBER

C-RAM FAC is a series of high performance broad banded microwave absorbers, made from light weight, very flexible urethane foam treated with a dielectric lossy material, which also imparts great fire retardancy. The product meets NRL 8093.

C-RAM FAC is a convoluted product; the front face is rippled or convoluted like an egg carton, the convolutions provide an impedance taper, which is very effective in minimizing front face reflections, especially at higher frequencies.

C-RAM FAC is the workhorse of the industry for frequency ranges of 15 GHz and above. For premium performance at lower frequencies the SFC product line is recommended.

C-RAM FAC is frequently used to line anechoic chambers used for high frequency measurements, and has many applications involving suppression of unwanted RF and radar reflections.

INSTALLATION

C-RAM FAC is readily cut to size and shape using a sharp knife or a bandsaw, and being relatively thin and flexible it easily conforms to contoured surfaces.

For permanent installation it is usually bonded in place using a rubber contact adhesive such as C-BOND 287 (see TB No. 287). For a removable installation, C-RAM FAC can be supplied with Velcro loop bonded to the back surface. Rolls of Velcro hook are supplied,

which are bonded to the walls, allowing the absorber to be pressed into place.

AVAILABILITY

C-RAM FAC is available in the standard grades listed below. Custom sizes and shapes are available on special order.

The standard base dimension is 24 in x 24 in (610 x 610 mm). C-RAM FAC is available in a walkway version, having a rigid foamed reverse insert and a PVC foam walk surface. At high frequency application, walkway should be kept to a minimum in a chamber, as the foam surface has a negative affect on the performance of the absorber.

C-RAM FAC is normally painted blue. For mm-wave applications (30 GHz and above), it is recommended to leave the material unpainted, as the minerals in the paint itself can begin to affect performance. In this case, "unpainted" should be specified along with the part number.

TYPICAL DIMENSIONS AND REFLECTIVITY PERFORMANCE (dB)

	3GHz	6GHz	10GHz	15GHz	30GHz	Height		Weight	
FAC 1.5	-	20	30	35	40	1.5 in	38mm	1.0 lb.	.45 kg
FAC 3.0	20	30	40	45	50	3.0 in	76mm	1.8 lb.	.82 kg
FAC 4.0	25	30	40	45	50	4.0 in	102mm	2.3 lb.	1.1 kg

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