

## TECHNICAL BULLETIN 390-10

### C-RAM CFC

#### HIGH PERFORMANCE CLEANROOM RF ABSORBER

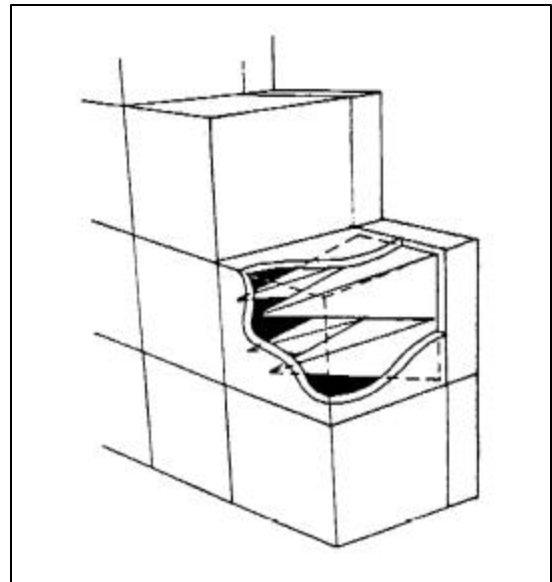
C-RAM CFC is a series of high performance broadbanded RF absorbers designed for electronic and aerospace cleanroom applications. The carbon loaded foam is completely embedded in a clean material, so there is no dusting or release of conductive particles.

C-RAM CFC is made by embedding the corresponding grade of C-RAM SFC Pyramidal absorber in a mating section of expanded polystyrene foam, and sealing the back with a polyvinyl chloride plastic film. The completed box is sprayed with a light blue antistatic coating, which can be wiped clean and requires no special vacuuming to maintain cleanroom conditions.

Because of the low dielectric constant of the polystyrene foam, C-RAM CFC has essentially the same reflectivity as the SFC absorber it is made from, up through X-band. At millimeter frequencies, performance may begin to degrade slightly.

#### METHOD OF APPLICATION

C-RAM CFC can be bonded to walls using a contact adhesive such as C-BOND 287. Alternatively, blocks can simply be stacked on top of each other. The material is designed so that, when stacked, the bases of the embedded SFC absorber are in close contact with each other, leaving minimal gaps, only of the thickness of the PVC film, between pieces.



#### AVAILABILITY

C-RAM CFC is available in 6 standard grades as shown in the table below. Standard base dimensions are 24 in x 24 in (610 x 610 mm). Other sizes and shapes are possible on special order.

C-RAM CFC can be supplied with an intumescent barrier coat under the antistatic coating; this further increases the fire retardancy of the polystyrene foam.

## TYPICAL DIMENSIONS AND REFLECTIVITIES OF C-RAM CFC GRADES

----- REFLECTIVITY AT FREQ., IN dB -----

Grade	Height	0.30 GHz	0.50 GHz	1.0 GHz	3.0 GHz	6.0 GHz	10.0 GHz
<b>CFC-4</b>	4.8" 120mm				30	35	42
<b>CFC-8</b>	8.8" 225mm			30	37	45	50
<b>CFC-12</b>	13" 330mm			35	40	45	50
<b>CFC-18</b>	19" 480mm		30	37	45	50	50
<b>CFC-24</b>	25" 635mm	30	35	40	45	50	50
<b>CFC-36</b>	37" 940mm	35	37	42	50	50	50

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