



## TECHNICAL BULLETIN 390-16

### C-RAM SFC-HC

#### HIGH POWER BROADBAND PYRAMIDAL HONEYCOMB RF ABSORBER

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C-RAM SFC-HC is a series of high power broadband honeycomb RF absorbers made from specially treated Pyramidal Honeycomb. Using a steep pyramid design, which provides an impedance gradient, C-RAM SFC-HC provides premium performance in anechoic chambers at both normal and off-normal incidence angles.

#### TYPICAL PROPERTIES

Typically, C-RAM SFC-HC absorbers, with no forced air, can handle up to 10 W/in<sup>2</sup> of RF energy with our phenolic coated honeycomb, and 3 W/in<sup>2</sup> of RF energy with our Neoprene coated Honeycomb. The product is black throughout.

With forced air cooling through the honeycomb cells, power handling is increased as shown in the tables:

##### Phenolic Coating

Air Velocity, ft/min.	Watts/in <sup>2</sup>
200	20
300	40
400	60
600	80

##### Neoprene Coating

Air Velocity, ft/min.	Watts/in <sup>2</sup>
100	6
300	12

#### AVAILABILITY

Standard sizes of C-RAM SFC-HC are listed in Table 1, ranging from a 4 inch to 18-inch height. C-RAM SFC-HC-4 up through SFC-HC-18 are shaped as conventional pyramids and supplied as square 24-inch (610 mm) panels.

In addition to simply supplying a bill of materials, Cuming Corporation designs and installs complete anechoic chambers. Chambers can be designed to meet your specifications, and an entire kit of materials is supplied, including factory pre-cuts of special fitting parts. We can install all materials or supply technical support to help you complete your own installation.

## METHOD OF APPLICATION

Absorber pieces are generally installed in a chamber using solvent-based neoprene contact adhesive. Higher power applications generally require nylon ties, which fasten the absorber to a screen mesh.

**TABLE 1**  
**PHYSICAL CHARACTERISTICS AND**  
**TYPICAL REFLECTIVITY AT NORMAL INCIDENCE**

GRADE	HEIGHT In. (mm)	WEIGHT lbs. (kg)	TIPS PER PIECE	REFLECTIVITY AT FREQUENCY (GHz)							
				0.12	0.3	0.5	1.0	3.0	6.0	10	18
SFC-HC4	4.3 (109)	3 (1.4)	144					25	30	40	40
SFC-HC6	6 (152)	3.5 (1.6)	100					25	35	40	40
SFC-HC8	8 (203)	4.5 (2.0)	64				25	30	40	40	40
SFC-HC12	12 (305)	6 (2.7)	36				25	30	40	40	40
SFC-HC18	18 (457)	12 (5.4)	16			25	30	40	40	40	40

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