

# CUMING MICROWAVE

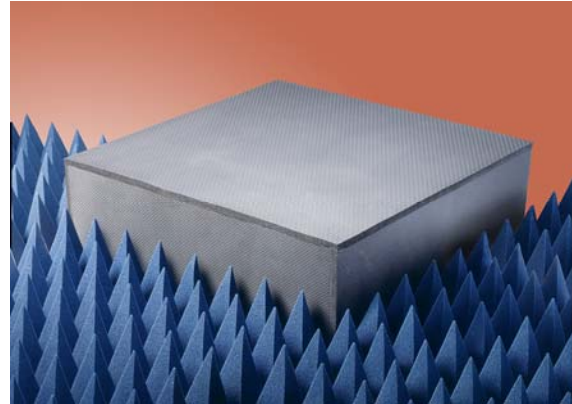
Technical Bulletin 390-14

## C-RAM SFC-WALKWAY HIGH PERFORMANCE BROADBANDED WALKWAY RF ABSORBER

RoHS  
Compliant

C-RAM SFC-WALKWAY is a series of high performance broadbanded RF absorbers, fabricated from standard C-RAM SFC pyramidal absorber. It is designed to be used on the floor of an anechoic chamber to allow access from the doorway to the equipment. The SFC absorber is fitted with a low density polystyrene foam matching section to square the piece off, and the sides and top of the block have bonded on a half inch (13 mm) thick sheet of a fire retardant, skinned plastic honeycomb.

Walkway absorber provides an effective access path for servicing the transmit and receive areas of an anechoic chamber.



### TYPICAL PROPERTIES

**Reflectivity performance** of a walkway is degraded from that of the SFC absorber comprising it, due to reflections from the skin. The degradation becomes more significant with increasing frequency; below 1 GHz, the degradation is small, at 10 GHz, reflectivity is limited to about 25 dB, in mm-wave applications, other methods of accessing equipment should be considered, such as removing and replacing absorber before beginning testing.

**Weight** of a walkway piece is approximately 20-25% heavier than the corresponding piece of C-RAM SFC.

**Height** of a walkway section is 3 inches (75 mm) higher than the height of the C-RAM SFC grade from which it is made. For example, SFC-8 Walkway is made using 8 inch pyramids, and has an overall height of 11 inches.

**Color:** All surfaces are black.

### AVAILABILITY

C-RAM SFC WALKWAY can be made from any grade of the standard SFC absorber, but SFC-24 is the largest standard size. For grades larger than SFC-24, consideration must be given to the stability of the piece since it would be taller than it is wide. Either larger sections should be produced, such as a 48 x 48 inch base, or a method of fixing the pieces to the floor should be used.

Pieces are generally 24 in. x 48 in. (610 x 1220 mm), or 24 in. x 24 in. (610 x 610 mm). Other custom sizes, as well as steps, ramps, and cutouts for pedestals and turntables, can be manufactured.

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### METHOD OF APPLICATION

Walkway absorber is simply laid in place on the floor of the chamber. As its performance is less than that of the corresponding grade of C-RAM SFC, the use of walkway should be minimized. It should be kept near walls, always as far from the transmission path as possible, and never near the specular bounce points. It is better to have two entries with short walkways than a long walkway servicing both the transmit and receive ends of the chamber.

If Walkway pieces are used directly under the antennas or devices being measured in the chamber, one should consider laying pyramidal absorber pieces on top of the Walkway in this region before beginning a test.

For aesthetic purposes, since the walkway is 3 inches higher than the SFC grade from which it is made, one may consider using a smaller grade than the surrounding SFC absorber. This will ensure the walkway is flush with or lower than the tips of the floor absorber.

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