

Technical Bulletin 390-2

C-RAM™ SFC WEDGE

HIGH PERFORMANCE WEDGE SHAPED ABSORBERS

C-RAM SFC-WEDGE is a series of high performance broadbanded absorbing materials of wedge configuration. SFC-WEDGE complements the pyramidal SFC product and is made using the same process and materials. SFC-WEDGE has the same fire retardancy compliance with NRL-8093 Tests 1, 2 and 3.

C-RAM SFC-WEDGE is designed for use in special applications where energy is directed at very wide angles, as in the case of energy propagation down the taper of a tapered chamber, and on chamber side walls, ceiling and floor in very long and narrow chambers. The wedge design eliminates backscatter at these high incidence angles.

An added feature of SFC-WEDGE is that the reflectivity performance at near normal incidence angles is approaching that of the pyramidal SFC product, but due to the wedge geometry, the product is polarization sensitive. The performance versus frequency is listed below. The performance difference is largely due to the polarization of the wedge geometry.

TYPICAL PROPERTIES

Dimensions and weights of the various grades of SFC WEDGE are given in Table 1. Typical and minimum reflectivity of the various grades is given in Table 2. Material is black throughout, surfaces are painted blue. Standard method of attachment is the same as for *C-RAM* SFC pyramidal grades.





AVAILABILITY

C-RAM SFC-WEDGE is available in seven standard grades, 3, 4, 6, 8, 12, 18, and 24 inches tall. Grades larger than 24 inches are available as special order.

All grades have a 24 inch x 48 inch (610 x 1220 mm) base size, with wedges running along the 48 inch dimension. Parts can be factory cut to special shapes and miters. In addition, predesigned tapered chamber kits are available with all necessary pre-cuts.

Specify the part as *C-RAM* SFC-xxW, where xx is the height in inches, for example, SFC-18W.

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TABLE 1 -- SFC WEDGE PHYSICAL DATA

Grade	Base	Height	Wedge Rows	Weight	
	Dimension		per piece		
SFC-3 WEDGE	24x48 in.	3 in.	16	4 lbs.	
SFC-4 WEDGE	24 x 48 in.	4 in.	12	5 lbs.	
SFC-6 WEDGE	24 x 48 in.	6 in.	10	8 lbs.	
SFC-8 WEDGE	24 x 48 in.	8 in.	8	10 lbs.	
SFC-12 WEDGE	24 x 48 in.	12 in.	6	13 lbs.	
SFC-18 WEDGE	24 x 48 in.	18 in.	4	16 lbs.	
SFC-24 WEDGE	24 x 48 in.	24 in.	3	22 lbs.	
SFC-36 WEDGE	24 x 48 in.	36 in.	2	30 lbs.	

TABLE 2 -- TYPICAL REFLECTIVITY AT NORMAL INCIDENCE, dB

(MINIMUM REFLECTIVITY AT NORMAL INCIDENCE, dB)

Frequency (GHz)	0.08	0.1	0.3	.5	1	3	6	10	18	36	50
SFC-3 WEDGE								-35 (-26)	-45 (-30)	-45 (-42)	-45 (-42)
SFC-4 WEDGE						-30 (-20)	-35 (-25)	-45 (-29)	-45 (-32)	-45 (-42)	-45 (-42)
SFC-6 WEDGE						-30 (-19)	-40 (-30)	-50 (-33)	-50 (-33)	-45 (-42)	-45 (-42)
SFC-8 WEDGE					-25 (-20)	-37 (-24)	-44 (-35)	-50 (-40)	-50 (-40)	-45 (-42)	-45 (-42)
SFC-12 WEDGE			-20 (-15)	-23 (-18)	-30 (-27)	-45 (-35)	-49 (-45)	-55 (-47)	-55 (-47)	-47 (-44)	-47 (-44)
SFC-18 WEDGE			-22 (-20)	-26 (- 24)	-35 (-28)	-47 (-39)	-50 (-45)	-55 (-47)	-55 (-47)	-50 (-44)	-50 (-44)
SFC-24 WEDGE	-6 (-3)	-8 (-5)	-23 (-20)	-27 (-25)	-35 (-29)	-47 (-37)	-50 (-45)	-57 (-47)	-58 (-47)	-50 (-47)	-50 (-47)
SFC-36 WEDGE	-16 (-10)	-18 (-10)	-28 (-15)	-36 (-25)	-40 (-32)	-50 (-38)	-55 (-45)	-60 (-47)	-60 (-47)	-50 (-47)	-50 (-47)

For SFC-48 WEDGE, please inquire to our technical sales group.

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