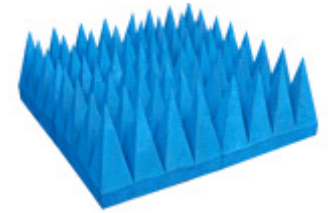


RF & Microwave Division

POLYURETHANE FOAM BASED RF MICROWAVE ABSORBERS

(Microwave Absorbent Material – Pyramidal Type)

FU-SE SERIES OF PYRAMIDAL RF MICROWAVE ABSORBERS:



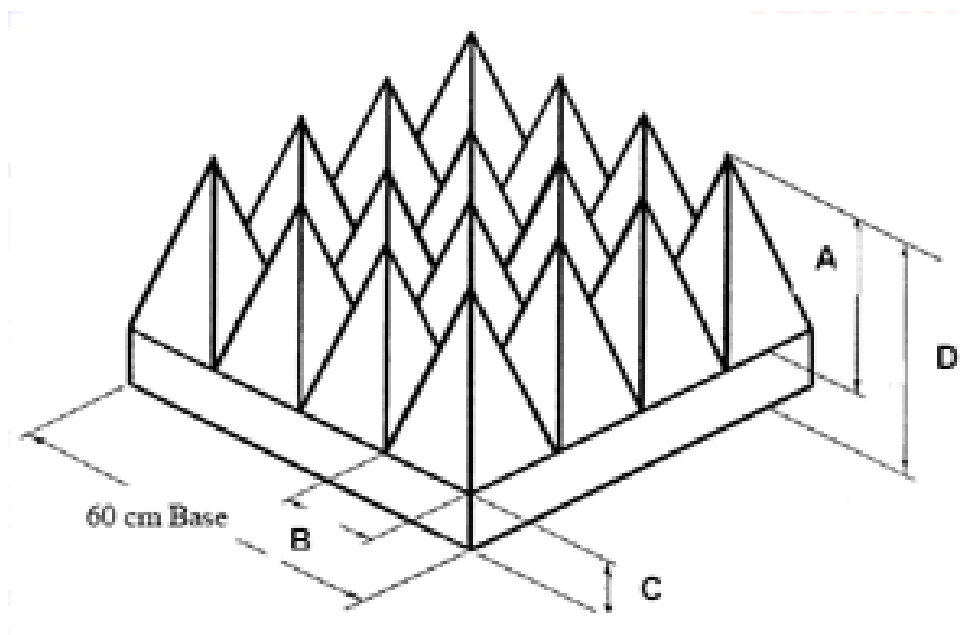
- ❖ FU-SE absorber product line is a complete range of high performance pyramidal microwave absorbers.
- ❖ Available in wide range of thickness and absorbencies.
- ❖ Variety of thickness gives the chamber designer the opportunity to choose grades appropriate for specific frequencies and incidence angles.
- ❖ Constructed using low density, flexible foam, impregnated with a carbon black ferrite formulation to achieve the desired electrical performance
- ❖ The pyramidal structure gives it the geometrical matching and the carbon dispersed gives the attenuation required at near normal incidences
- ❖ Provide engineers with the building blocks needed in the design and construction of RF absorbing surface used in anechoic chambers, antenna assemblies and microwave measuring facilities.

TYPICAL PERFORMANCE OF PYRAMIDAL ABSORBER:

Absorber Type	Thickness (Inches)	Reflectivity (dB) for near normal incidence relative to metal surface of same size at different frequency.						
		80 MHz	250 MHz	500 MHz	1.0 GHz	3.0 GHz	10.0 GHz	18 GHz-40GHz
FU-SE 70/45/36	70/45/36	TO BE DESIGNED FOR THE GIVEN FERRITE TO MAKE HYBRID ABSORBERS AT LOW FREQUENCIES						
FU-SE-24	24	-6	-20	-35	-40	-50	-50	-50
FU-SE-18	18			-30	-40	-45	-50	-50
FU-SE-12	12				-25	-40	-50	-50
FU-SE-8	8					-25	-50	-50
FU-SE-4	4					-20	-40	-50
FU-P-SE-24	24			-30	-40	-40	-45	-40
FU-P-SE-12	12				-25	-40	-45	-40

FEATURES:

- ❖ Absorption over a wide frequency range.
- ❖ Long product life.
- ❖ High performance, up to -50 dB attenuation.
- ❖ These absorbers are supplied with a fire retardant finish.
- ❖ **RoHS Compliant.**



Absorber Type	Pyramid Height, A	Pyramid Width, B	Base Height, C	Total Absorber Height, D	Number of Pyramids per Absorber
FU-SE-4	3"	2"	1"	4"	144
FU-SE-8	6"	3"	2"	8"	64
FU-SE-12	10"	4"	2"	12"	36
FU-SE-18	15"	6"	3"	18"	16
FU-SE-24	21"	8"	3"	24"	9

Note: Above dimensions are indicative and subject to change for specific application.

MATERIAL PROPERTIES:

- ❖ Color: As Desired, generally available in blue color.
- ❖ Dimensions: 60 cm X 60 cm
- ❖ Chemical Composition: Carbon ferrite impregnated polyurethane foam
- ❖ Maximum service temperature: 90 degree Centigrade
- ❖ Power handling capacity: 0.5 Watt/Cm²
- ❖ Fire Retardancy: Passes NRL-8093, USA test 1, 2 & 3 With **Zero Halogen Means**.
- ❖ Our foam absorbers are fire retardant with zero halogen means thereby avoid formation of toxic gases like HCl / HBr and poisonous gases like phosgene.

AREAS OF APPLICATION:

- ❖ Broadband absorbers suitable for in-door measurements.
- ❖ Used in making microwave anechoic chambers for performing measurements like RCS, Antenna Measurements etc.
- ❖ Used in making Moving screens for hiding the areas of maximum reflections
- ❖ Used for obtaining Quiet Zones in very wide frequency range



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