



### PYRAMIDAL HYBRID MICROWAVE ABSORBER

#### **TOTAL PYRAMID:**

Our FHY type absorber are pyramidal shaped flexible polyurethane foam based carbon / ferrite powder loaded hybrid absorber which are made for use in EMC test chambers. These FHY absorbers are to be combined with ferrite tiles to perform at lower frequencies and a low density matching dielectric layer to make hybrid absorber suitable at higher frequencies as well. FHY Absorber is available in three thicknesses viz 30.0cm, 45cm and 60cm thick and termed as FHY-12, FHY-18 and FHY-24 respectively.

#### **TRUNCATED:**

FHY Absorbers are available in truncated version where tips of the pyramidal are removed for saving space in chambers and tip breakage thus making a more rugged product. This is done at the expense of their performance at higher frequencies. Truncated absorbers are available in 30 cm and 45 m thickness and are termed as FHY-12-T and FHY-18-T, respectively.

#### **TYPICAL PERFORMANCE REFLECTIVITY:**

A typical performance of these hybrid microwave absorbers (FHY + Ferrite + Dielectric) at near normal incidence shall be as under at different frequencies.

Absorber Type	Reflectivity (dB) with respect to Metal at frequency (MHz)								
	30	50	80	250	1000	10000	20000	30000	40000
FHY-12	-13	-15	-18	-15	-16	-18	-30	-40	-40
FHY-18	-14	-15	-18	-15	-16	-20	-35	-40	-40
FHY-24	-14	-15	-18	-15	-20	-25	-40	-40	-40
FHY-12-T	-14	-15	-18	-15	-16	-15	-15	NR	NR
FHY-18-T	-14	-15	-18	-15	-16	-15	-15	NR	NR

NR-Not Recommended.



### MATERIAL PROPERTIES:

- ❖ Colour: 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/Cm<sup>2</sup>.
- ❖ Fire Retardency: Passes NRL-8093, USA test 1, 2 & 3 With **Zero Halogen Means**.

### FEATURES:

- ❖ Our FHY absorbers are optimized for a particular ferrite tiles /dielectric combination.
- ❖ Our foam absorbers are fire retardant with zero halogen means thereby avoid formation of toxic gases like HCl/HBr and poisonous gases like phosgene.
- ❖ **RoHS** Compliant.