

# POLYPROPYLENE (PP) BASED MICROWAVE ABSORBER 3710

Antenna measurement in anechoic rooms on high frequency range



The Polypropylene (pp) based microwave( electromagnetic wave) absorber is looking the same as our Polypropylene (pp) based hybrid pyramid absorber 3700 but this absorber is used on the high frequeny range. The absorber is designed for antenna measurement in anechoic rooms and solution for Antenna Pattern Measurement (APM), Antenna Test Range (ATR), Radar Cross Section (RCS) and Electronic Warfare Test (EWT) chambers.

Depending on the different range of sizes, each size has its own reducing factor of electromagnetic waves. It can be used to cover up the low frequency band without the use of ferrite tiles.

It is possible to place the absorber on the foor. For this we've developed the Walkable floor for absorbers 3640-Floor series. When instralled it can be used to perform sVSWR tests in EMC chambers. Depening on the size of your shielded box it also can be used for high frequency range tests as well.

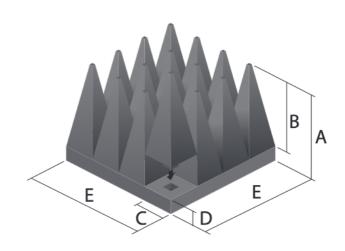
#### MATERIAL CHARACTERISTICS

| Color                           | Black                           |  |  |  |  |
|---------------------------------|---------------------------------|--|--|--|--|
| Material                        | Polypropylene (pp)              |  |  |  |  |
| Shape                           | Pyramid                         |  |  |  |  |
| Power handling capacity         | 1.5 kW/ m2 or 752 V/m           |  |  |  |  |
| Max service temperature         | 100°C                           |  |  |  |  |
| Cleanroom equipment suitability | ISO 14644 Class 4               |  |  |  |  |
| Fire retardancy                 | UL94 HBF<br>/ DIN 4102 Class B2 |  |  |  |  |
|                                 |                                 |  |  |  |  |

#### **FEATURES**

- Polypropylene based microwave broadband absorber
- Specifically designed for high frequency range
- Suitable for antenna pattern measurement chamber
- · High uniformity of carbon powder density
- Provides repeatable and accurate test results
- Extremely low carbon dust emission
- Foam expansion molding manufacture system
- Eco friendly
- Water resistant
- Fire resistant
- Light weight material
- Easy installation

### **TECHNICAL DRAWING**





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### **PHYSICAL PROPERTIES**

| Partnumber   | Weight<br>(kg) | No. of     | Туре           | Absorber<br>Dimensions (mm) |     |     |    |           |  |
|--|----------------|------------|----------------|-----------------------------|-----|-----|----|-----------|--|
|  |                | Tips       |                | A                           | В   | С   | D  | E         |  |
| 3710-10  | 0.86<br>0.21)  | 144<br>36) | Single unit    | 100                         | 70  | 50  | 30 | 600 (300) |  |
| 3710-20  | 1.39<br>0.35)  | 64<br>16)  | Single unit    | 200                         | 170 | 75  | 30 | 600 (300) |  |
| 3710-30  | 1.89           | 36         | Plug<br>& Pull | 300                         | 260 | 100 | 40 | 600       |  |
| 3710-50  | 3.00           | 16         | Plug<br>& Pull | 500                         | 440 | 150 | 60 | 600       |  |
| 3710-75  | 4.38           | 9          | Plug<br>& Pull | 750                         | 670 | 200 | 80 | 600       |  |
| Due to the characteristics of polypropylene material, the dimensional tolerances of 5mm may be occurred during transportation. |                |            |                |                             |     |     |    |           |  |

### TYPICAL REFLECTIVITY

| Part num-<br>ber | 30 MHz | 50 MHz | 100 MHz | 500 MHz | 1 GHz | 3 GHz | 5 GHz | 10 GHz | 18 GHz | 28 GHz | 40 GHz |
|------------------|--------|--------|---------|---------|-------|-------|-------|--------|--------|--------|--------|
| 3710-10          |        |        |         |         | -28   | -32   | -33   | -33    | -33    | -33    | -33    |
| 3710-20          |        |        |         |         | -30   | -40   | -40   | -50    | -50    | -50    | -50    |
| 3710-30          | -1     | -3     | -24     | -28     | -35   | -48   | -48   | -50    | -50    | -50    | -50    |
| 3710-50          | -4     | -11    | -29     | -34     | -45   | -50   | -50   | -50    | -50    | -50    | -50    |
| 3710-75          | -9     | -20    | -32     | -37     | -46   | -50   | -50   | -50    | -50    | -50    | -50    |