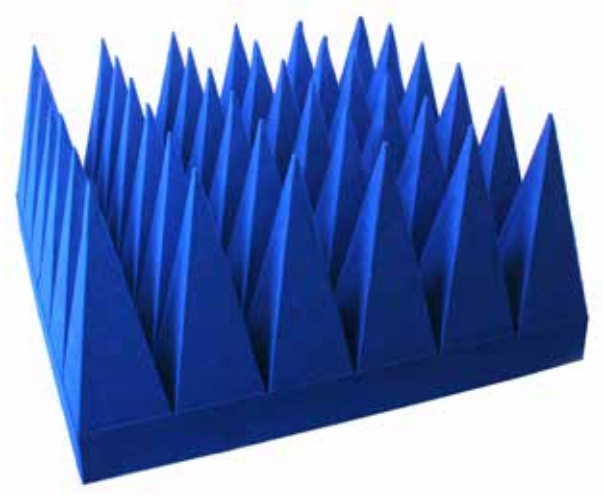
3640 - PU foam based pyramid absorbers



Solution for 3m, 5m and 10m EMC chambers in the market

These absorbers are the most popular solution for 3m, 5m and 10m EMC chambers in the market.
They are composed of pyramidal, full tip SAM or truncated SMT pulsing the matching layer to separate the pyramidal part from the ferrite part. Through optimization, this product has a superb performance across 30MHz to 18GHz. The ferrite performes from 30MHz to 1GHz and the foam performes above 1GHz.

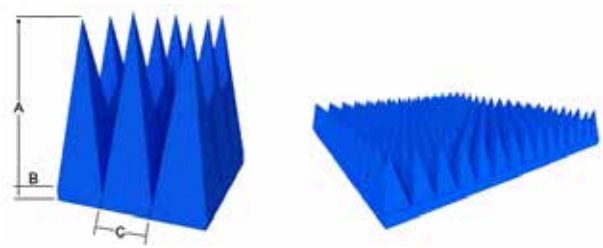
Prototypes are made and the design is tested. Results become part of a valuable feedback loop for refining our design further.

Broadband Pyramidal Absorber is a low density polyurethane foam, filled with high loss dielectric material in open cell structure and finished with blue paint.

The general base size is 60cm x 60cm with 50mm to 1200mm height pyramidal. It's flexible and light weight, can be attached on the wall easily. It is a high performance broadband RF absorber and widely used for Anechoic Chambers.

Installation method
Generally an environmental protective adhesive is used to paste the absorbers on the shield body (inside of the Faraday cage); when the absorbers' height is below 500mm, Velcro installation can be applied; furthermore, we can also adopt the fasteners to install the absorbers, which would facilitate the replacement of absorbers and the relocation of chambers.

Schematic diagram of PU foam based microwave absorbers



Technical drawing of PU foam based pyramid absorbers

Charactaristics

- Such absorbers have a pyramid-shaped appearance, with blue color (it can be selected as request)
- Pliable and flexible, the pyramids won't bend in long-term use, and its absorbing properties won't be changed within 10 years.
- Oxygen index ≥29% (GB/T2406-93), which belongs to flame retardant B2 level (GB8624-1997)
- Good environmental performance, all raw materials can meet the environmental requirements, no volatile, no smell and non-toxic.
- Working conditions: general indoor application
  - Long-time working temperature: -50°C ~ 90°C
    Short-time working temperature: -100°C ~ 120°C
  - Relative humidity: 55% ± 15%
    Frequency range: 30MHz ~ 110GHz

www.hollandshielding.com
Jacobus Lipsweg 124
NL-3316BP, The Netherlands
T: +31 (0)78 - 204 90 00
F: +31 (0)78 - 204 90 08
info@hollandshielding.com
hollandshielding.com

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Product specification and part numbers

Part number	Base size (mm*mm)	Pyramid quantity per unit	Unit size A*C*B (mm*mm*mm*	Standard weight (kg/m2)
3640-50	600 x 600	900	50 x 20 x 10	1.5
3640-96		225	96 x 36 x 20	2.2
3640-190		81	190 x 65 x 50	4
3640-300		36	300 x 100 x 60	7
3640-495		16	495 x 145 x 65	11
3640-700		9	700 x 195 x 130	16
3640-1000	300 x 300	1	1000 x 300 x 150	22
3640-1200	400 x 300	1	1200 x 400 x 200	25

Reflection loss / Shielding performance

Part number	Reflection loss under vertical incidence (-dB @ GHz)											Power handling capacity
	0.03	0.08	0.3	0.5	1	3	6	10	18	40	100	kW/m2
3640-50							30	35	40	50	45	1.5
3640-96						30	35	40	45	50	45	1.5
3640-190					27	35	40	45	50	50	48	1.5
3640-300				25	35	40	50	50	50	50	47	1.5
3640-495			20	30	40	45	50	50	50	50	48	1.5
3640-700		8	25	35	40	50	50	50	50	50	48	1.5
3640-1000		11	30	40	45	50	50	50	50	50	47	1.5
3640-1200	5	13	35	40	50	50	50	50	50	50	47	1.5

These values are measured under laboratory conditions. In your situation results may differ, please read our Guarantee

Please note:

- For the data below 500MHz, it is obtained by l
- ow-frequency coaxial test method (GJB5239-2004); while for the data above 1GHz, it is obtained by far-field RCS test method (GJB2038A-2011)
- The performance data listed in the above table is the guaranteed data, and the measured data would be equal to or better than the guaranteed data.
- The bold part number is a stock item and can be delivered immediately
- Certification: CE ROHS

Order information

When you want to order 3640 series PU foam based pyramid absorbers please specify the part number as follow:

Part number	Height (mm)
3640	300

PU foam based pyramid absorbers with a height of 300 mm can be delivered from stock