EHP High Performance Microwave Pyramidal Absorber

ETS-Lindgren's type EHP (Extra High Performance) microwave absorber is designed for use over a wide frequency spectrum and has been used as an effective tool for the reduction of reflections from 30 MHz through 100 GHz. Each piece of absorber is fabricated of the highest quality urethane foam, which is cut into a precise bun configuration and impregnated with a conductive carbon using a proprietary formulation.

Read a case study on how this product was used for drone/UAV (Unmanned Aerial Vehicle) testing.

Whether you need just a few pieces of absorber or a complete turnkey chamber, we have the experience and resources to help you with the right solution.

Key Features

- Numerically Optimized Design
- Fire Retardant
- FlexSorb Available

Specifications

Physical Specifications

Adhesive: Yes
Clip: Yes
Color: Rantec Blue
Environmental: Temperature: 12° C to 32° C (50° F to 90° F)
Relative Humidity: 50% ± 20%
Maximum Absorber Temperature: 90° C (190° F)
Ratings, Fire Retardant: NRL 8093 Tests 1, 2 & 3, TI #2693066, MIT MS-8-21, UL 94 and DIN 4102-B2
Velcro: 45.72 cm (18 in)

Dimensions by Model

Model	Absorber Footprint	Pyramids per Absorber	Base Height	Overall Height	Pyramid Height	Weight
EHP-3PCL	24 in x 24 in	256	1.9 cm (0.75 in)	8.25 cm (3.25 in)	6.4 cm (2.52 in)	1 kg (2.20 lb)
EHP-5PCL	24 in x 24 in	144	2.5 cm (0.98 in)	12.7 cm (5.00 in)	6.4 cm (2.52 in)	1.6 kg (3.53 lb)
EHP-8PCL	24 in x 24 in	64	5.1 cm (2.01 in)	21.6 cm (8.50 in)	16.5 cm (6.50 in)	2.8 kg (6.17 lb)
EHP-12PCL	24 in x 24 in	36	5.7 cm (2.24 in)	31.1 cm (12.24 in)	25.4 cm (10.00 in)	4.6 kg (10.14 lb)
EHP-18PCL	24 in x 24 in	16	5.7 cm (2.24 in)	46.4 cm (18.27 in)	40.6 cm (15.98 in)	4.6 kg (10.14 lb)
EHP-24PCL	24 in x 24 in	9	10.2 cm (4.02 in)	61.0 cm (24.02 in)	50.8 cm (20.00 in)	6.1 kg (13.45 lb)
EHP-36PCL	24 in x 24 in	4	15.2 cm (5.98 in)	91.4 cm (35.98 in)	76.2 cm (30.00 in)	9.5 kg (20.94 lb)
EHP-48PCL	24 in x 24 in	4	20.3 cm (7.99 in)	121.9 cm (47.99 in)	101.6 cm (40.00 in)	11.3 kg (24.91 lb)

EHP-72PCL	24 in x 24 in	1	30.5 cm (12.01 in)	182.9 cm (72.01 in)	152.4 cm (60.00 in)	15.9 kg (35.05 lb)

NOTE: All absorbers are checked at spot frequencies as a part of quality assurance program at production, for example, EHP-12PCL are checked at 1 GHz, 2 GHz, 4 GHz and 8 GHz to meet the above requirements.

Electrical Specifications

Maximum Power Density: 775 W/m^2, 77.5 mW/cm^2, 0.5 W/in^2

Frequency Range by Model

Model	Frequency Minimum	Frequency Maximum
EHP-3PCL	4 GHz	40 GHz
EHP-5PCL	2 GHz	40 GHz
EHP-8PCL	1 GHz	40 GHz
EHP-12PCL	1 GHz	40 GHz
EHP-18PCL	500 MHz	40 GHz
EHP-24PCL	200 MHz	40 GHz
EHP-36PCL	80 MHz	40 GHz
EHP-48PCL	80 MHz	40 GHz
EHP-72PCL	80 MHz	40 GHz

Maximum Reflections at Normal Incidence

	80 MHz	120 MHz	200 MHz	300 MHz	500 MHz	1-2GHz	2-4 GHz	4-8 GHz	8-12 GHz	12-18 GHz	18-40 GHz
EHP3PCL								-30 dB	-40 dB	-45 dB	-45 dB
EHP5PCL							-30 dB	-40 dB	-45 dB	-50 dB	-50 dB
EHP8PCL						-30 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
EHP12PCL						-35 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
EHP18PCL					-30 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB	-50 dB
EHP24PCL			-20 dB	-30 dB	-35 dB	-40 dB	-50 dB	-50 dB	-50 dB	-50 dB	-50 dB
EHP36PCL	-11 dB	-13 dB	-25 dB	-30 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB	-50 dB	-50 dB
EHP48PCL	-15 dB	-20 dB	-30 dB	-35 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB	-50 dB	-50 dB
EHP72PCL	-20 dB	-30 dB	-40 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB	-50 dB	-50 dB	-50 dB

Product Options

Optional FlexSorb™ Treatment

With FlexSorb, you can enjoy the same excellent performance characteristics as our traditional absorbers, with the advantages of improved durability. FlexSorb is a special absorber treatment that allows an absorber to bend but not break. It's ideal for high traffic areas like chamber doorways and interior walls, or for tests that require an anechoic floor treatment. And, being that FlexSorb is also non-hygroscopic: its weight does not change in the presence of atmospheric moisture.