

# WAVASORB® HHP

*Advanced Broadband Hollow Pyramidal Absorber*

WITH RESPECT FOR THE ENVIRONMENT: REACH & RoHS COMPLIANT



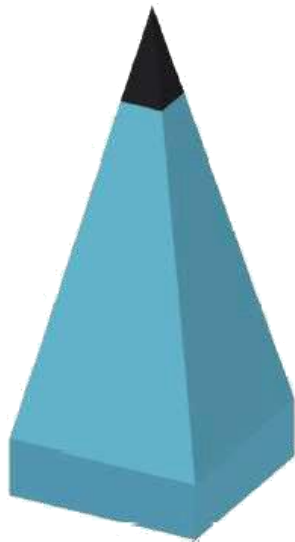
- ✓ WAVASORB® HHP-60 is lightweight carbon-loaded polyurethane foam absorber because of its hollow, pyramidal shape
- ✓ The thick walls of the pyramid together with their tapered design, provides impedance matching over a wide frequency band
- ✓ Premium performance in the operating frequency range, starting at low frequencies, as of 60 MHz to 40 GHz, obtained by optimization of the geometry of the individual absorber
- ✓ Excellent power-handling capability assured under continuous wave exposure
- ✓ Certified to fire-retardancy and environmental specifications through containing an advanced chemical composition
- ✓ Designed and quality controlled using commercial and original simulating test techniques

# WAVASORB® HHP

## Installation Methods and Chamber Validation

WAVASORB® HHP-60 is typically bonded using a modular installation technique called 'plate & rail mounting' to achieve a perfect geometry and alignment, compatible with any type of shielding.

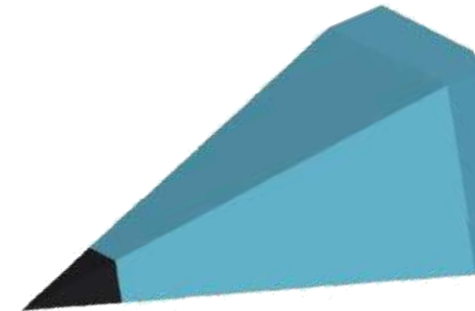
E&C Anechoic Chambers has developed VSWR Field-Probe measurement techniques for anechoic chamber validation, verifying the chamber performance at the system level.



## Applications

WAVASORB® HHP is the preferred solution for the anechoic chamber lining of:

- ✓ Far-Field & Near-Field facilities;
- ✓ Compact Antenna test ranges;
- ✓ Radar Cross Section (RCS) facilities;
- ✓ Electronic Warfare (EW) test ranges;
- ✓ Wireless Over-The-Air (OTA) measurement systems.



*Multiple variables go with our WAVASORB® HHP-60 absorber,  
e.g. plastic coating, painting/coating colours, ...  
For more information on variables, contact your sales representative*

# WAVASORB® HHP

## Characteristics

Handling Temperature <sup>(1)</sup>	+5°C to +35°C
Humidity Range	30% to 70%
Frequency Range	60 MHz up to 40 GHz
Maximum Incident Power Density <sup>(2)</sup>	1.5 kW/m <sup>2</sup> , 0,98 W/in <sup>2</sup> , 750 V/m
Fire Retardancy Tests	According to: - UL-94-HBF - ISO 4589-2 - EN 13501-1 Class E; ISO 11925-2 - DIN 4102-1 Class B2 - NRL 8093 Tests 1, 2 and 3
Environmental Testing	Compliant with: - IEC 60068-2-1 Test Ab - AATCC 30-IV (2004)
REACH Compliant	According to EC 1907/2006
RoHS Compliant	According to 2015/863/EU
Quality Control	IEEE Standard 1128 ISO 9001
Product Life	25+ years under controlled environment

<sup>(1)</sup> Depending on the application, the absorber can withstand temperatures of +90°C, for more information, contact your sales representative

<sup>(2)</sup> Depending on duration & frequency, for more information, contact your sales representative

## Physical properties

	Standard Color <sup>(1)</sup>	Standard footprint <sup>(2)</sup>
<b>WAVASORB® HHP-60</b>	Light blue with black tip	61 cm x 61 cm

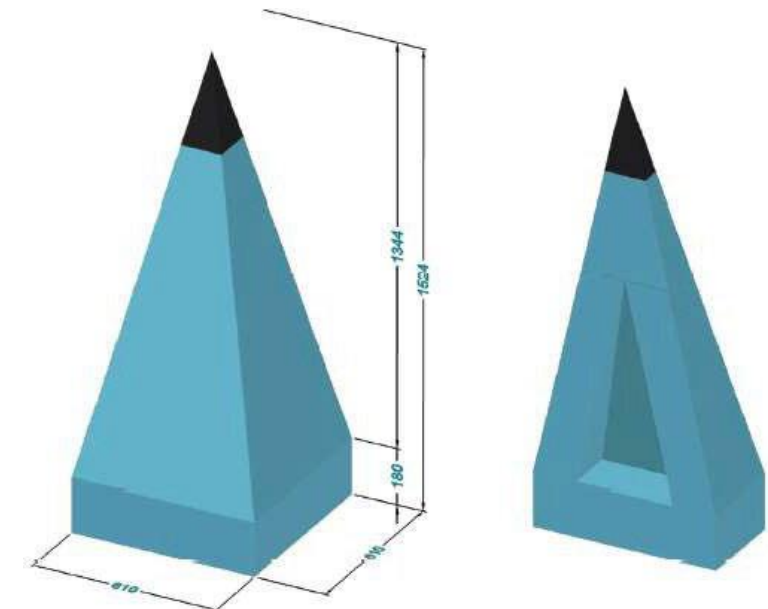
<sup>(1)</sup> Contrast colours available on request

<sup>(2)</sup> Without backing plate; the above-mentioned dimensions have a tolerance of +/- 6 mm

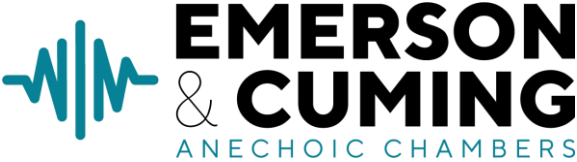
	Total height <sup>(1)</sup> (cm)	Average weight <sup>(2)</sup> (kg)	Number of pyramids per piece
<b>WAVASORB® HHP-60</b>	152,4	15,0	1

<sup>(1)</sup> The above-mentioned dimensions have a tolerance of +/- 6 mm

<sup>(2)</sup> Weight values are subject to changes



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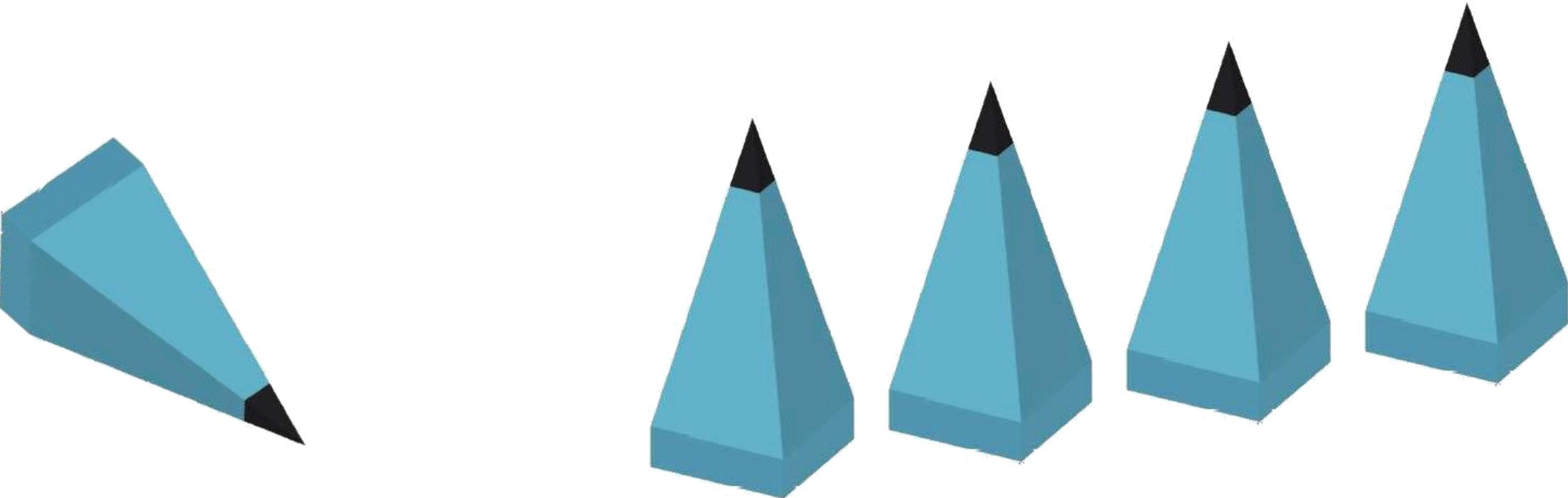


## Typical Reflectivity Performance at Normal Incidence & Measurement Techniques

WAVASORB® HHP-60 is manufactured in well-defined batches and their reflectivity and fire-retardant properties are continuously monitored following internal ISO 9001 procedure.

WAVASORB® HHP-60 is tested routinely in-house in the frequency range from 60 MHz to 9 GHz using a set of coaxial lines, waveguides and NRL Arch in accordance with the practice recommended in IEEE Standard 1128. In the high-frequency range, measurements are performed in the frequency range of 9 GHz up to 40 GHz. Furthermore, WAVASORB® HHP-60 offers favourable reflectivity properties at off normal angles of incidence with almost no reflectivity degradation up to 45 degrees.

	60 MHz - 70 MHz	70 MHz - 100 MHz	100 MHz - 200 MHz	200 MHz - 320 MHz	380 MHz - 700 MHz	700 MHz - 1 GHz	1 GHz - 2 GHz	2 GHz - 40 GHz
WAVASORB® HHP-60	-15 dB	-20 dB	-25 dB	-30 dB	-35 dB	-40 dB	-45 dB	-50 dB



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Safety Considerations: It is recommended to consult the E&C ANECHOIC CHAMBERS product literature, including material safety data sheets, prior to use E&C ANECHOIC CHAMBERS products. These may be obtained from your local sales office.

Warranty: Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use.

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