

WAVASORB® HHP

Advanced Broadband Hollow Pyramidal Absorber

- WAVASORB® HHP is a 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 each individual absorber.
- Certified to fire-retardancy and environmental specifications through containing an advanced chemical composition.
- Excellent power-handling capability assured under continuous wave exposure.
- REACH-and RoHS-compliant, maintaining a healthy environment for operation.
- Designed and quality controlled using commercial and original simulating test techniques.

Installation Methods and chamber validation

WAVASORB® HHP 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.

Emerson & Cuming AC 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;
- Rader Cross Section (RCS) facilities;
- Electronic Warfare (EW) test ranges;
- Wireless Over-The-Air (OTA) measurement systems.

Multiple variables go with our WAVASORB® HHP-absorbers, e.g. plastic coating, painting/coating colours, ...

For more information on variables, contact your sales representative.

With respect for the environment



Characteristics

Handling temperature⁽¹⁾	+5°C to +35°C
Humidity range	30% to 70%
Frequency range	60 MHz up to 40 GHz
Maximum incident power density⁽²⁾	1,5 kW/m ² , 0,98 W/in ² , 750 V/m
Fire retardancy tests	Compliant with: <ul style="list-style-type: none"> - UL-94 HBF & V-0 & HF-1 - EN13501-1: ISO 11925-2 Class E - ISO 4589-2 - DIN 4102-1 Class B2 - NRL 8093 Tests 1, 2 and 3
Environmental testing	According to: <ul style="list-style-type: none"> - 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

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

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

Physical properties

	Standard color ⁽¹⁾	Standard footprint ⁽²⁾
WAVASORB® HHP-60	Light blue with black tip	61 cm x 61 cm

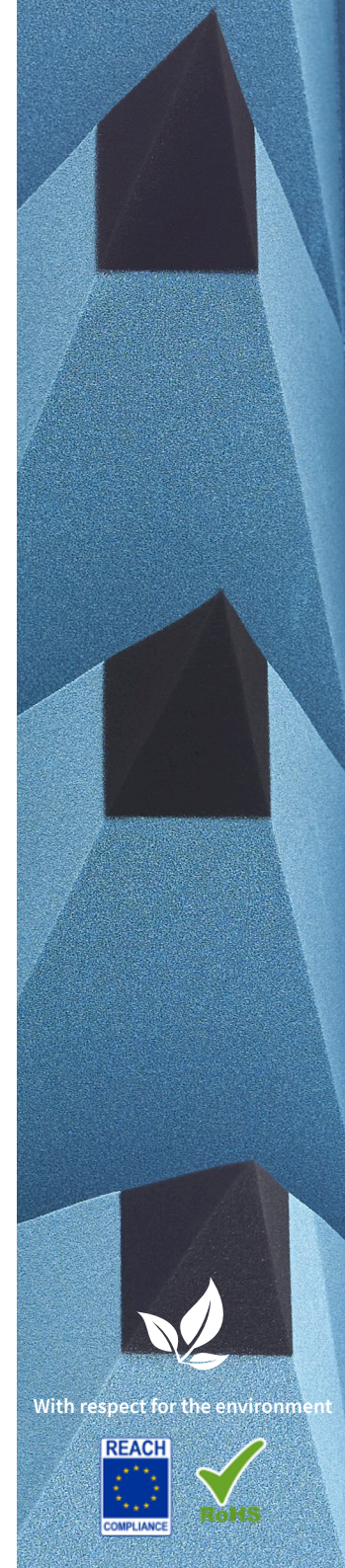
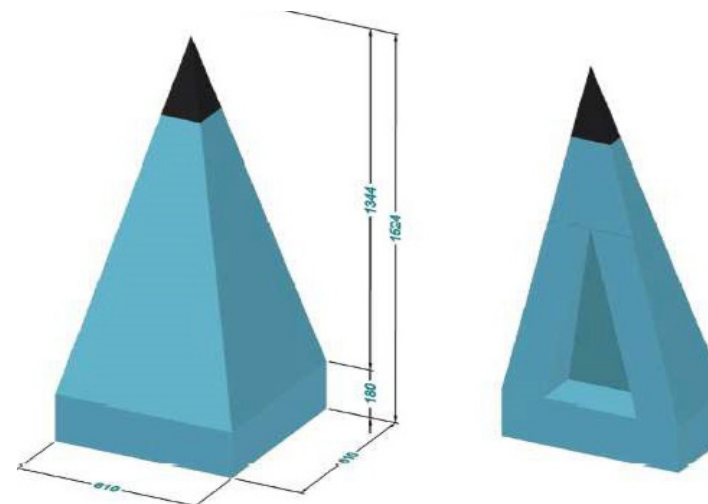
⁽¹⁾ Contrast colours available on request / black tips as of 18-inch absorbers

⁽²⁾ Without backing plate, the above-mentioned dimensions have a tolerance of +/-6 mm

	Total height ⁽¹⁾ (cm)	Nominal weight ⁽²⁾ (kg)	Number of pyramids per piece
WAVASORB® HHP-60	152,4	15,0	1

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

⁽²⁾ Weight values are subject to changes



With respect for the environment



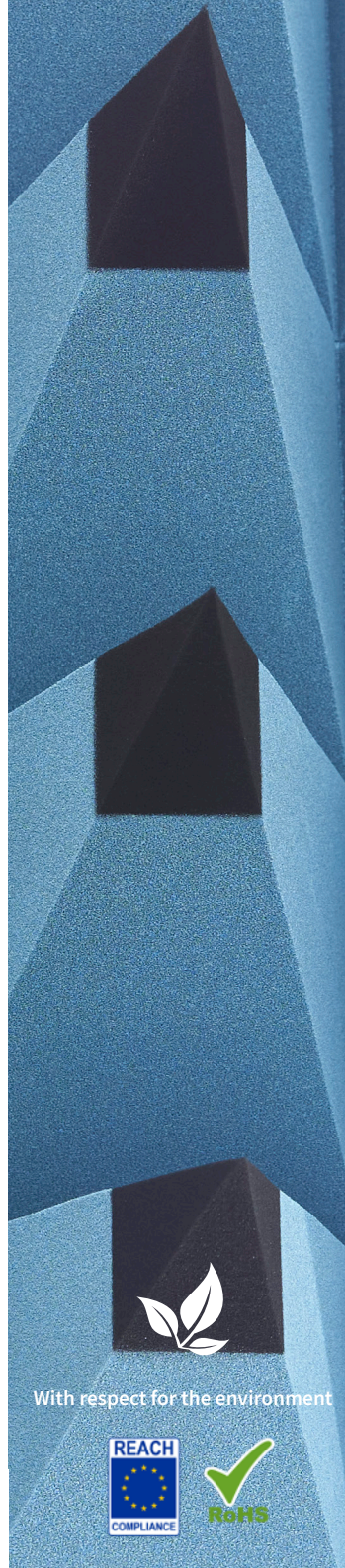
Typical reflectivity performance at normal incidence & measurement techniques

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

WAVASORB® HHP 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® VHP offers favourable reflectivity properties at off normal angles of incidence with almost no reflectivity degradation up to 45 degrees.

TYPICAL REFLECTIVITY (dB)								
	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



E&C Anechoic Chambers nv

Nijverheidsstraat 7A
B-2260 Westerlo
Belgium

Tel.: +32 14 59 58 00

sales@ecac.be
www.ecac.be

Albatross Projects RF Technology

India Pvt. Ltd
312, Siddhraj Zori, Near Sargasan Cross, KH-0,
Off S.G. Highway
Gandhinagar, 382421
India

Tel.: +91 97 3737 9537
Fax: +91 79 2975 0780

info@albatross-projects.in
www.albatross-projects.in

E&C Anechoic Chambers Asia Ltd.

7K King Palace Plaza,
55 King Yip Street, Kwun Tong
Kowloon, HongKong

Tel.: +852 3975 9871

asia-sales@ecac.be
www.ecac.be

Specifications subject to change without notice. ECAC 04/2024

Albatross Projects GmbH

Daimlerstrasse 17
89564 Nattheim
Germany

Tel.: +49 7321 730 500
Fax: +49 7321 730 590

info@albatross-projects.com
www.albatross-projects.com

Albatross Projects RF Technology

(Shanghai) Co., Ltd.
Block 35, No.100 Baise Road
Inside Grand Skylight Gardens Hotel
200231 Shanghai
P.R. China

Tel.: +86 21 6434 1110
Fax: +86 21 6434 7800

info@albatross-projects.com.cn
www.albatross-projects.com.cn

AP Americas Inc.

3101 Skyway Circle N.
75038 Irving, Texas USA

Tel.: +1 972 295 9100
Fax: +1 972 810 3223

info@apamericas.com
www.apamericas.com



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. We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.