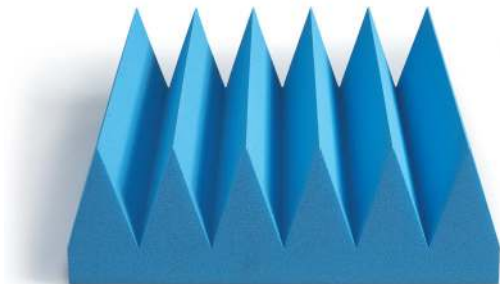




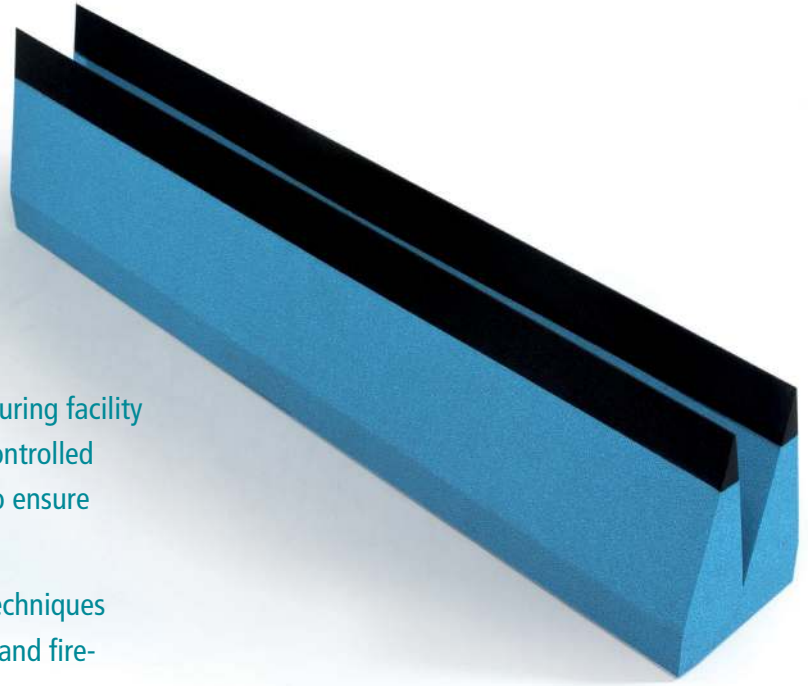
# WAVASORB® WG

## Advanced Broadband Wedge Absorber



- WAVASORB WG is a series of solid, wedge-shaped, carbon-loaded, urethane-foam absorbers.
- Premium performance in the operating frequency range from 300 MHz to 110 GHz, obtained by optimization of the geometry of any individual absorber.
- Certified to all fire-retardancy and environmental specifications by 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 and test techniques.

# WAVASORB® WG



E&C Anechoic Chambers has a fully automated manufacturing facility with CNC-controlled foam-cutting machines, computer-controlled impregnation, drying processes, and robotized painting to ensure stability of RF and fire-retardant performances.

Seventy years experience with absorber-manufacturing techniques provides consistency in chemical compositions, electrical and fire-retardant properties with uniform distribution.

E&C Anechoic Chambers can provide customized solutions to accommodate cleanroom requirements, flexible coatings and paintings to improve durability, and engineered pre-cuts and custom parts fit for equipment linings.

Perfectionism is our goal, with special attention to the dimensions and geometry of the individual absorber panels that enhance performance as well as optical appearance of the entire test facility.

## Guaranteed Reflectivity

	300 MHz	450 MHz	800 MHz	1 GHz	3 GHz	6 GHz	12-18 GHz	18-40 GHz	40-110 GHz
WAVASORB WG-4					-30 dB	-35 GHz	-45 dB	-45 dB	-45 dB
WAVASORB WG-8				-20 dB	-35 dB	-45 dB	-48 dB	-48 dB	-48 dB
WAVASORB WG-12			-20 dB	-25 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
WAVASORB WG-18		-20 dB	-25 dB	-30 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
WAVASORB WG-20	-15 dB	-20 dB	-30 dB	-35 dB	-40 dB	-50 dB	-50 dB	-50 dB	-50 dB

## Measurement Techniques

WAVASORB WG is manufactured in well-defined batches, and their reflectivity and fire-retardant properties are continuously monitored following internal ISO 9001 procedures.

The intrinsic material parameters are regularly measured with state-of-the-art test set ups and optimized using numerical simulation software. WAVASORB WG is tested routinely in the frequency range from 30 MHz to 40 GHz using a set of coaxial lines, waveguides, NRL Arches and in a Compact Range in accordance with IEEE Standard 1128.

WAVASORB WG has excellent power handling capability to safely withstand an incident CW power density of up to 800 W/m<sup>2</sup>. Moreover, it can handle an incident CW power density up to 1500 W/m<sup>2</sup> for periods less than 30 minutes.

## Installation Methods and Chamber Validation

WAVASORB WG is typically bonded to metallic surfaces using WAVASORB Adhesive. For easy exchange, modular installation techniques are available using Velcro fasteners or Plate & Rail mounting to achieve perfect geometry and alignment compatibility with any type of shielding.

Contrast colors are available in various types of paint and coating.

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 WG absorber has been primarily designed to be efficient for the special conditions required for the wave propagation down part of the tapered chamber. Here, the wave is propagating nearly parallel to the tapered walls. This is quite different from the energy propagating perpendicular to or at a significant angle to the wall. It has been shown that an effective absorber for this condition is one with the front surface comprised of an aggregate of parallel wedge-shaped rows. These rows are aligned parallel to the direction of propagation. The major benefit of the wedge absorbers compared to the pyramidal absorbers is the lower scattered field produced by the former.

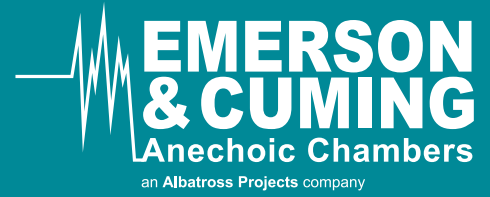
WAVASORB WG is the preferred solution for the anechoic chamber lining of Far-field and specific areas in Compact Antenna Test Ranges and Rader Cross Section (RCS) facilities.

## Characteristics

Standard Color	Blue
Operation Temperature	+5°C to +35°C
Humidity Range	30% to 70%
Frequency Range	300 MHz- 110 GHz
Power Handling	800 W/m <sup>2</sup> , 0,52 W/in <sup>2</sup> , 550 V/m
Fire-retardancy	NRL 8093 Tests 1, 2 and 3 DIN 4102-1 Class B2 ISO 11925-2 Class E UL-94/HBF ISO 4589-2
RoHS Compliant	According to 2011/65/EU
Reach Compliant	According to EC 1907/2006
Environmental	IEC 60068-2-1 Test Ab AATCC 30-IV ( 2004 )
Quality Control	IEEE Standard 1128 ISO 9001
Product Life	20+ Years

## Physical Properties

	Base Dimensions (cm)	Total Height (cm)	Nominal Weight (kg)
WAVASORB WG-4	61 x 61	12.7	1.9 kg
WAVASORB WG-8	61 x 61	20.3	2.5 kg
WAVASORB WG-12	122 x 20.3	30.5	3.0 kg
WAVASORB WG-18	122 x 15.3	45.7	3.0 kg
WAVASORB WG-20	122 x 20.3	50.4	3.5 kg



## Related WAVASORB® Series



WAVASORB® VHP CO:  
Coated Absorber



WAVASORB® HFX/HFS:  
High Power Absorber



WAVASORB® VHP FL:  
Walkable Floorabsorber



WAVASORB® VHP VE:  
Ventilation Absorber



WAVASORB® VHP OD:  
Outdoor Absorber

■ **E&C Anechoic Chambers NV**  
Nijverheidsstraat 7A  
B-2260 Westerlo  
Belgium

Tel.: +32 14 59 58 00  
Fax: +32 14 59 58 01

info@ecanechoicchambers.com  
www.ecanechoicchambers.com

■ **E&C Anechoic Chambers Asia Ltd**  
Flat/Rm 303, 3/F St. George's Bldg  
2 Ice House Street, Central  
Hong Kong

Tel.: +852 3972 2173  
Fax: +852 3972 2211

jtsang@ecanechoicchambers.com  
www.ecanechoicchambers.com

■ **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

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■ **Albatross Projects RF Technology  
India Pvt. Ltd**  
312, Siddhraj Zori, Near Sargasan Cross, KH-0,  
Off S.G. Highway  
Gandhinagar, 382421  
India

Tel.: +91 79 3221 3399

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

■ **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.**  
1500 Lakeside Parkway, Suite 100-B  
Flower Mound, TX 75028  
USA

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

info@apamericas.com  
www.apamericas.com

[www.ecanechoicchambers.com](http://www.ecanechoicchambers.com)

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