

# WAVASORB® WG

*Advanced Broadband Wedge-Shaped Absorber*

WITH RESPECT FOR THE ENVIRONMENT: REACH & RoHS COMPLIANT



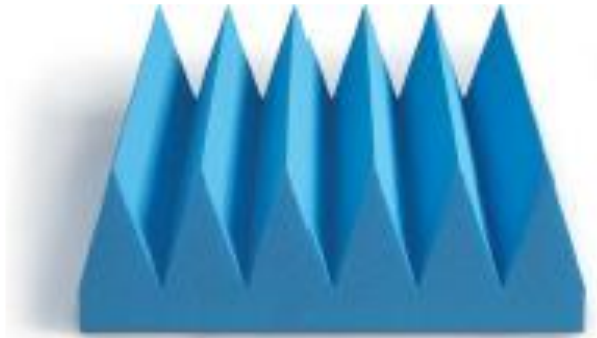
- ✓ WAVASORB® WG is a series of solid, wedge-shape, carbon-loaded, urethane-foam absorbers.
- ✓ Premium performance in the operating frequency range from 300 MHz to 110 GHz, obtained by optimization of the geometry of each absorber type.
- ✓ Certified to fire-retardancy and environmental specifications through containing an advanced chemical composition.
- ✓ Excellent power-handling capability assured under continuous wave exposure.
- ✓ Designed and quality controlled using original test techniques.

# WAVASORB® WG

## Installation Methods

WAVASORB® WG is typically bonded to metallic surfaces using WAVASORB® Sprayable Adhesive.

For easy exchange, modular installation techniques are available using velcro-fasteners or plate & rail mounting to achieve perfect geometry and alignment, compatible with any type of shielding.



*Multiple variables go with our WAVASORB® WG absorbers,  
e.g. plastic coating, painting/coating colours,  
self-adhesive tape factory-installed, ...  
For more information on variables, contact your sales representative.*

## 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 close-to-normal angle to the wall.

It has been shown that an effective absorber for this condition is one with 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 backscattered field, produced by the former.

WAVASORB® WG is the preferred solution to partially line areas in the anechoic chamber of:

- ✓ Far-Field & Near-Field facilities at some special regions where the incident angle is large;
- ✓ Radar Cross Section (RCS) facilities where the wedge absorbers yield lower back-scattered fields;
- ✓ Electronic Warfare (EW) test ranges in some special regions where the incident angle is relatively large;
- ✓ Wireless Over-The-Air (OTA) measurement systems in specific regions;
- ✓ Tapered chambers mainly in the tapered parts of the chamber.

# WAVASORB® WG

## Characteristics

<b>Handling Temperature<sup>(1)</sup></b>	+5°C to +35°C
<b>Humidity Range</b>	30% to 70%
<b>Frequency Range</b>	300 MHz up to 110 GHz
<b>Maximum Power Density</b>	1,5 kW/m <sup>2</sup> , 0,98 W/in <sup>2</sup> , 750 V/m
<b>Fire Retardancy Tests</b>	According to: - UL-94-HBF - EN 13501-1 Class E; ISO 11925-2 - ISO 4589-2 - DIN 4102-1 Class B2 - NRL 8093 Tests 1, 2 and 3
<b>Environmental Testing</b>	Compliant with: - IEC 60068-2-1 Test Ab - AATCC 30-IV (2004)
<b>REACH compliant</b>	According to EC 1907/2006
<b>RoHS compliant</b>	According to 2015/863/EU
<b>Quality control</b>	IEEE Standard 1128 ISO 9001
<b>Product life</b>	+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>(2)</sup>
<b>WAVASORB® WG<sup>(1)</sup></b>	Light blue

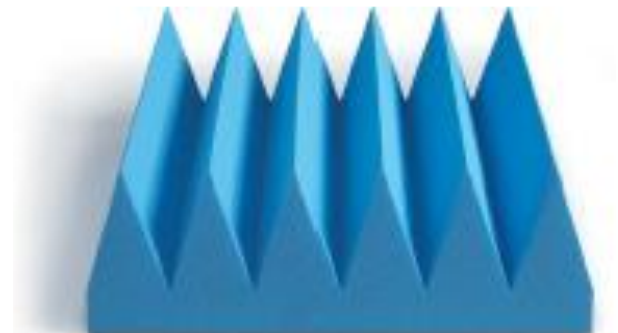
<sup>(1)</sup> Black tips as of WAVASORB® WG-12

<sup>(2)</sup> Contrast colours available on request

	Base Dimensions (cm)	Total height <sup>(1)</sup> (cm)	Nominal weight <sup>(2)</sup> (kg)
<b>WAVASORB® WG-4</b>	61 x 61	12,7	2,2
<b>WAVASORB® WG-8</b>	61 x 61	20,3	3,0
<b>WAVASORB® WG-12</b>	122 x 20,3	30,5	3,2
<b>WAVASORB® WG-18</b>	122 x 15,3	45,7	3,5
<b>WAVASORB® WG-20</b>	122 x 20,3	50,4	4,5

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

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



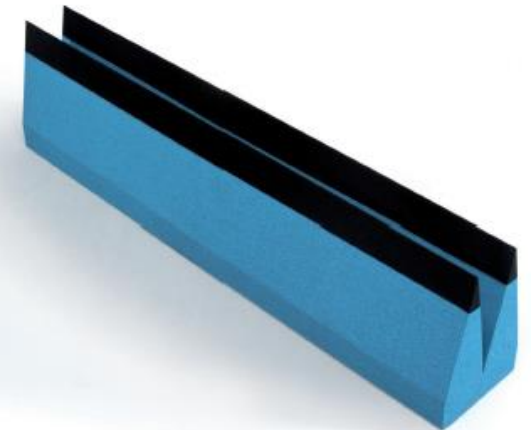
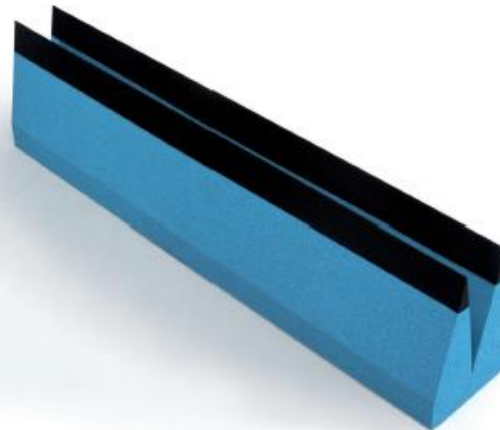
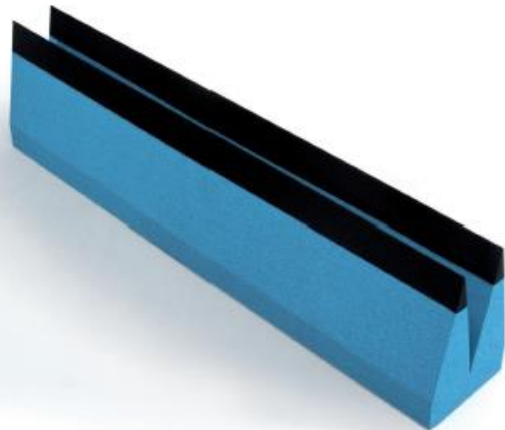
# WAVASORB® WG

## Typical Reflectivity Performance at Normal Incidence & 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.

WAVASORB® WG is tested routinely in-house in the frequency range from 300 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 110 GHz inside a compact range facility of an external test house. Furthermore, WAVASORB® WG offers favourable reflectivity properties at off normal angles of incidence with almost no reflectivity degradation up to 45 degrees.

	300 MHz	500 MHz	800 MHz	1 GHz	3 GHz	6 GHz	12 - 18 GHz	18 - 40 GHz	40 - 110 GHz
<b>WAVASORB® WG-4</b>					-30 dB	-35 dB	-40 dB	-40 dB	-40 dB
<b>WAVASORB® WG-8</b>				-20 dB	-35 dB	-35 dB	-40 dB	-40 dB	-40 dB
<b>WAVASORB® WG-12</b>			-20 dB	-25 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® WG-18</b>		-20 dB	-25 dB	-28 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
<b>WAVASORB® WG-20</b>	-15 dB	-20 dB	-30 dB	-30 dB	-40 dB	-50 dB	-50 dB	-50 dB	-50 dB



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

Tel.: +32 14 59 58 00

[sales@ecac.be](mailto:sales@ecac.be)  
[www.ecac.be](http://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](mailto:info@albatross-projects.in)  
[www.albatross-projects.in](http://www.albatross-projects.in)

■  
E&C Anechoic Chambers Asia Ltd.  
7K King Palace Plaza,  
55 King Yip Street, Kwun Tong  
Kowloon, Hong Kong

Tel.: +852 3975 9871

[asia-sales@ecac.be](mailto:asia-sales@ecac.be)  
[www.ecac.be](http://www.ecac.be)

■  
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](mailto:info@albatross-projects.com.cn)  
[www.albatross-projects.com.cn](http://www.albatross-projects.com.cn)

■  
Albatross Projects GmbH  
Daimlerstrasse 17  
89564 Nattheim  
Germany

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

[info@albatross-projects.com](mailto:info@albatross-projects.com)  
[www.albatross-projects.com](http://www.albatross-projects.com)

■  
AP Americas Inc.  
3101 Skyway Circle N.  
75038 Irving, Texas  
USA

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

[info@apamericas.com](mailto:info@apamericas.com)  
[www.apamericas.com](http://www.apamericas.com)

Shaping  
  
the future



[www.ecac.be](http://www.ecac.be)

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.