WAVASORB® WG

Advanced Broadband Wedge-Shaped 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 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.**

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WAVASORB® WG

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Installation Methods

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, compatible with any type of shielding.

Applications

WAVASORB® WG absorber has been primarily designed to be efficient for the special conditions for the wave propagation down part of the tapered chamber.

With WAVASORB® WG, 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.

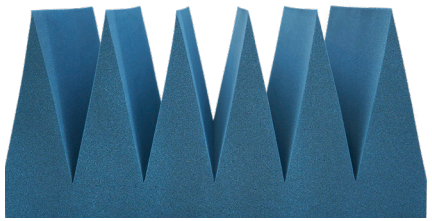
It has been shown that an effective absorber for this condition is one with parallel wedge-shaped rows. These rows are aligned parallel to the direction of propagation.

The major benefit of the wedge absorbers compared to the pyramidal absorbers is the lower backscattered field, produced by the former.

Applications

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.**



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.

With respect for the environment

REACH COMPLIANCE

RoHS

WAVASORB® WG

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Characteristics

Handling temperature[1]	+5°C to +35°C
Humidity range	30% to 70%
Frequency range	300 MHz up to 110 GHz
Maximum incident power density[2]	1,5 kW/m², 0,98 W/in², 750 V/m
Fire retardancy tests	Compliant with: - 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: - 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*

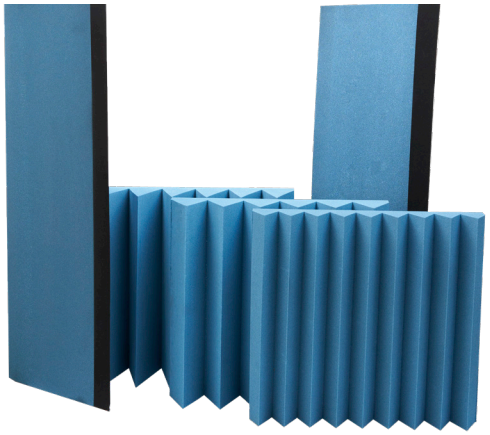
Physical properties

	Standard color[1]
WAVASORB® WG	Light blue

[1] *Contrast colours available on request / black tips as of WAVASORB® WG-12*

	Base dimensions[1] (cm)	Total height[1] (cm)	Nominal weight[2] (kg)
WAVASORB® WG-4	61,0 x 61,0	12,7	2,2
WAVASORB® WG-8	61,0 x 61,0	20,3	3,0
WAVASORB® WG-12	122,0 x 20,3	30,5	3,2
WAVASORB® WG-18	122,0 x 15,3	45,7	3,5
WAVASORB® WG-20	122,0 x 20,3	50,4	4,5

[1] *The above-mensioned dimensions have a tolerance of +/-6 mm*
[2] *Weight values are subject to changes*



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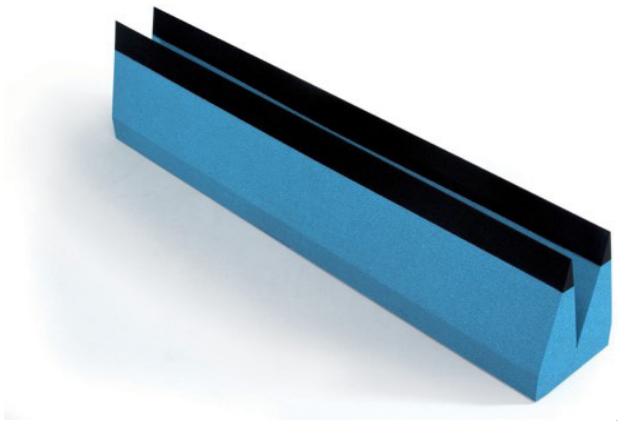
Typical reflectivity performance at normal incidence & measurement techniques

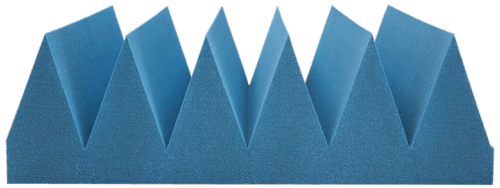
WAVASORB® WG is manufactured in well-defined batches and their reflectivity and fire-retardant properties are continuously monitored following internal ISO 9001 procedure.

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.

TYPICAL REFLECTIVITY (dB)									
	300 MHz	500 MHz	800 MHz	1 GHz	3 GHz	6 GHz	12-18 GHz	18-40 GHz	40-110 GHz
WAVASORB® WG-4					-30 dB	-35 dB	-40 dB	-40 dB	-40 dB
WAVASORB® WG-8				-20 dB	-35 dB	-35 dB	-40 dB	-40 dB	-40 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	-28 dB	-40 dB	-45 dB	-50 dB	-50 dB	-50 dB
WAVASORB® WG-20	-15 dB	-20 dB	-30 dB	-30 dB	-40 dB	-50 dB	-50 dB	-50 dB	-50 dB





With respect for the environment

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Specifications subject to change without notice. ECAC 04/2024

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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.