

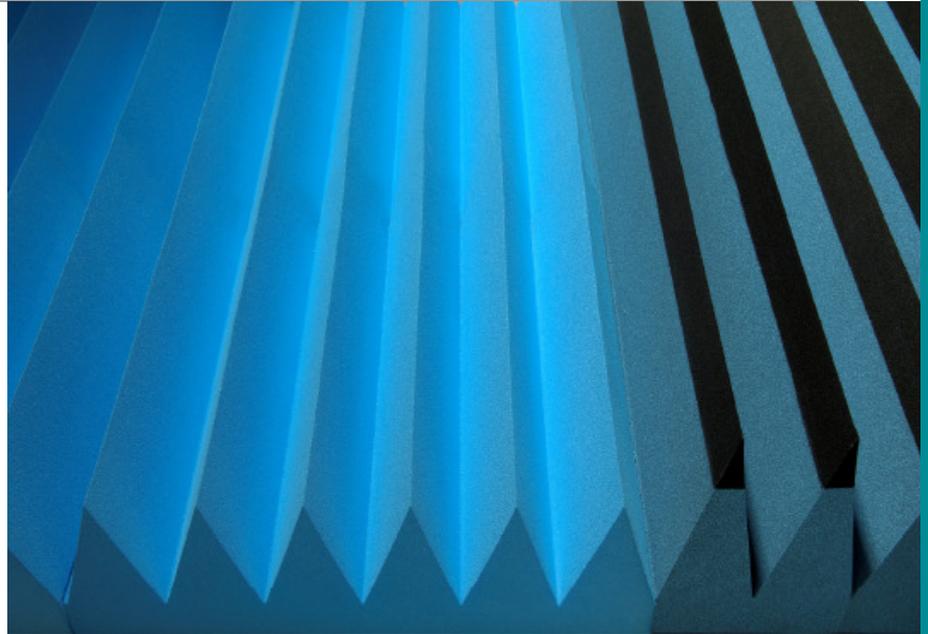
# ECCOSORB® WG-NRL

## WEDGE ABSORBER FOR ANECHOIC CHAMBERS

### ■ Description

ECCOSORB WG is a series of absorbing materials made from bulk resistive polyurethane foam.

The absorber surface is a wedge configuration. It is thus related closely to ECCOSORB VHP (see technical bulletin EB-100), a pyramidal absorber.



### ■ Application

ECCOSORB WG absorber has been primarily designed to be effective for the special conditions involved with propagation down the taper of a tapered chamber. Here, the wave is propagating nearly parallel to the absorber lining the tapered walls. This is quite different from the more common case where energy propagates perpendicular to or at a significant angle to the absorber. It may be shown that an effective absorber for this condition is one having the front surface comprised of an aggregate of parallel wedge-shaped rows where these rows are aligned parallel to the direction of propagation. If the sides of these wedges are near an angle of  $45^\circ$  with the plane of the absorber, the wave travelling down the taper finds a similar absorber surface for polarizations both perpendicular and parallel to the plane of the absorber. The ECCOSORB WG absorber has such geometry. It turns out that the ECCOSORB WG absorber also provides a reflection coefficient for angles near normal which is generally only 5 to 15 dB below that of the corresponding ECCOSORB VHP. As a consequence, this absorber is also well suited for covering regions of rectangular chambers such as the transmit wall and the outer regions of the side walls, floor and ceiling. With regard to mating of material in corners, good engineering practice suggests cutting adjacent pieces at  $45^\circ$  and butting cut faces together.

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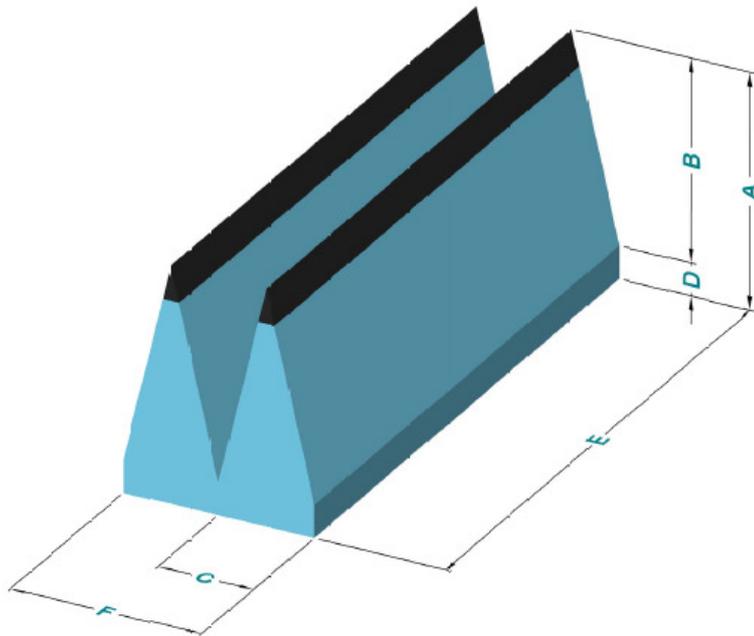
# ECCOSORB® WG-NRL

## WEDGE ABSORBER FOR ANECHOIC CHAMBERS

### Physical properties

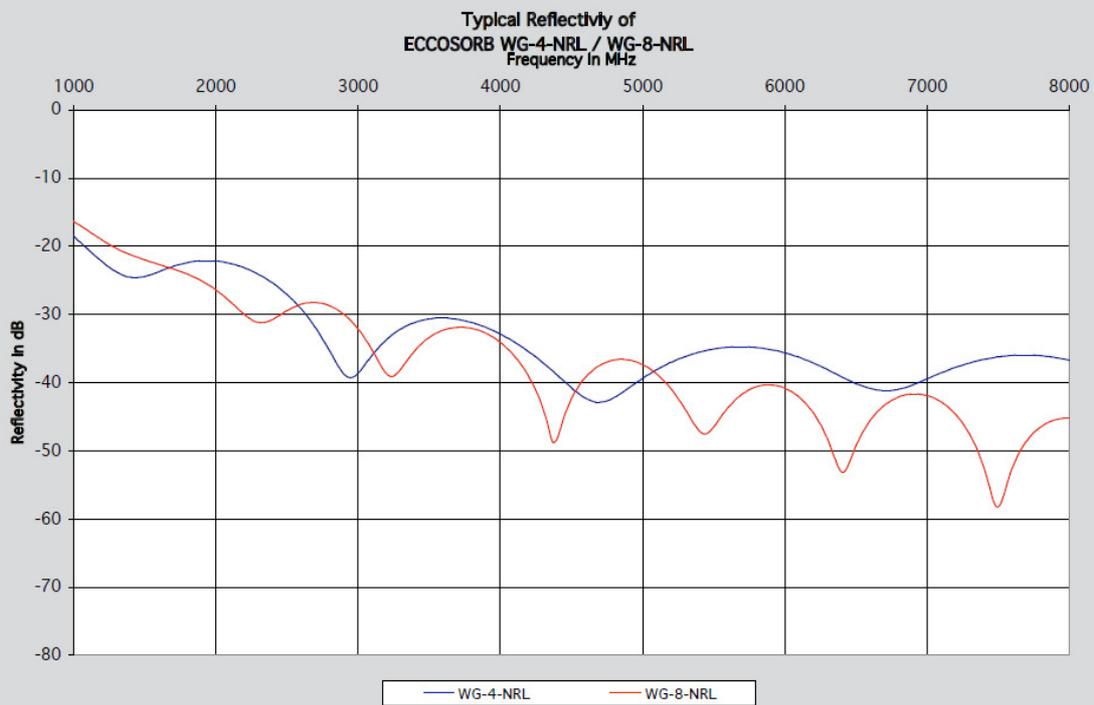
	ECCOSORB WG
Standard color	Blue
Base size (cm)	61 x 61 / 122 x 20.3
Maximum service temperature	90°C
Power handling	1.5 kW / m <sup>2</sup>
Fire retardancy	NRL 8093 Tests 1, 2 and 3, DIN 4102 Class B2, ISO 11925-2

### Nominal dimensions and weights of ECCOSORB WG



	Total height A (cm)	Wedge height B (cm)	Wedge width C (cm)	Base height D (cm)	Total length E (cm)	Total width F (cm)	Number of wedges per piece	Nominal weight (kg)
ECCOSORB WG-4	12.7	8.3	6.8	4.4	61.0	61.0	9	1.9
ECCOSORB WG-8	20.3	15.2	10.2	5.1	61.0	61.0	6	2.5
ECCOSORB WG-12	30.5	24.1	10.2	6.4	122.0	20.3	2	
ECCOSORB WG-20	50.8	43.4	20.3	7.4	122.0	20.3	1	3.5
ECCOSORB WG-26	66.0	55.8	20.3	10.2	122.0	20.3	1	5.3

## ■ Electromagnetic properties



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## WEDGE ABSORBER FOR ANECHOIC CHAMBERS

### ■ Availability

This absorber differs from ECCOSORB VHP type only in surface geometry and therefore possesses its typical desirable features such as low weight, flexibility, high light reflectance, good resistance to physical damage and ease of mounting. ECCOSORB WG is available in the same sizes as ECCOSORB VHP and carries the same designators, e.g. ECCOSORB WG-12 has the same thickness as ECCOSORB VHP-12.

### ■ Instructions for use

ECCOSORB WG is typically bonded to metallic surfaces using either E&C ADHESIVE 13111, velcro fasteners or Z-bar mounting. Velcro fasteners should only be used on grades up to ECCOSORB WG-12.

Pieces to cover the floor may simply be put into place or may be bonded to the surface.

The material is designed for indoor use only.

**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.

2010/04 - V01/2

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