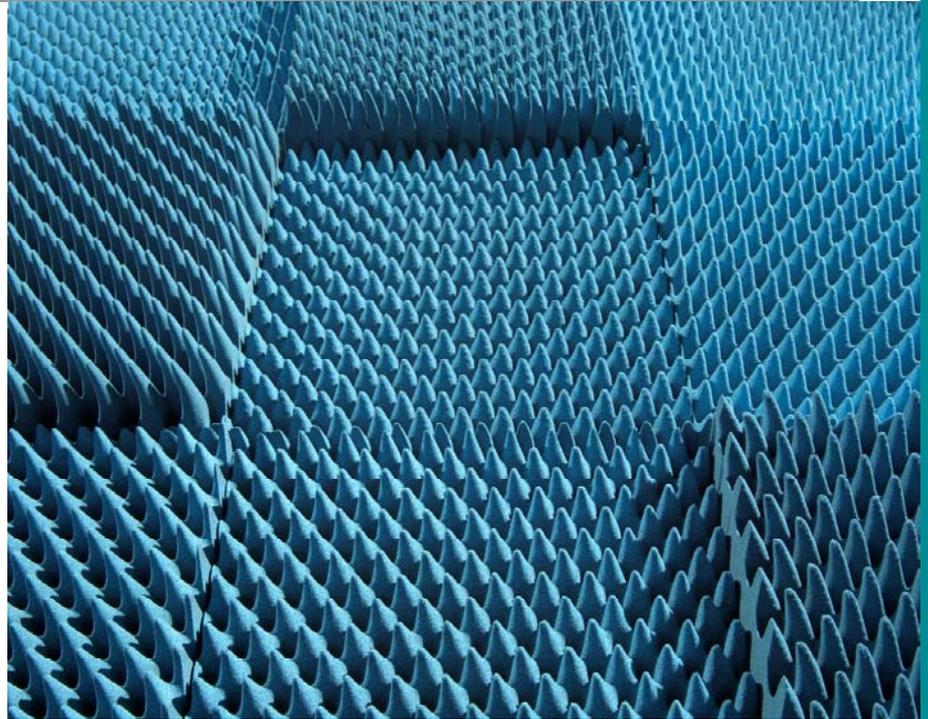


ECCOSORB® CV

BROADBAND CONVOLUTED FOAM MICROWAVE ABSORBER

Description

ECCOSORB CV is a premium quality tapered broadband microwave absorber. It is a moderately flexible urethane foam material having a front surface cut to a convoluted (egg-carton) shape. It is available in three grades, with different thicknesses, having different low frequency reflectivity limits. Because of the rounded convolutions and lacking sharp corners and points, ECCOSORB CV is the preferred absorber for millimeter wave frequencies and for very wide incidence angles. There is no degradation in performance at incidence angles out to 60° off-normal.



■ Application

- millimeter wave anechoic chambers.
- Lining the tapered walls of tapered anechoic chambers.
- Absorbing collars (shrouds) around the edges of high performance antennas.

■ Physical properties

	CV-3	CV-4	CV-6-NRL
Base size (cm)	61 x 61		
Max. service temperature	90°C		
Power handling	1.5 kW / m ²		
Fire retardancy	UL-94-HBF	NRL8093 Test 1, 2 & 3	

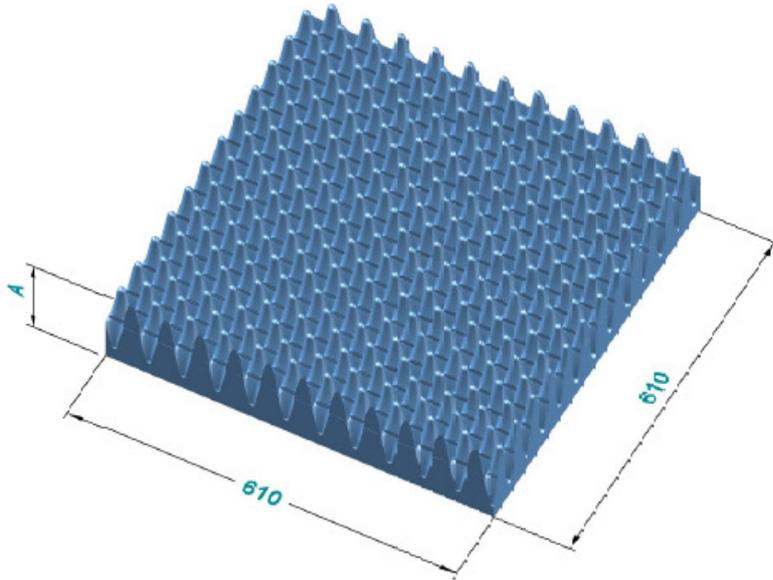
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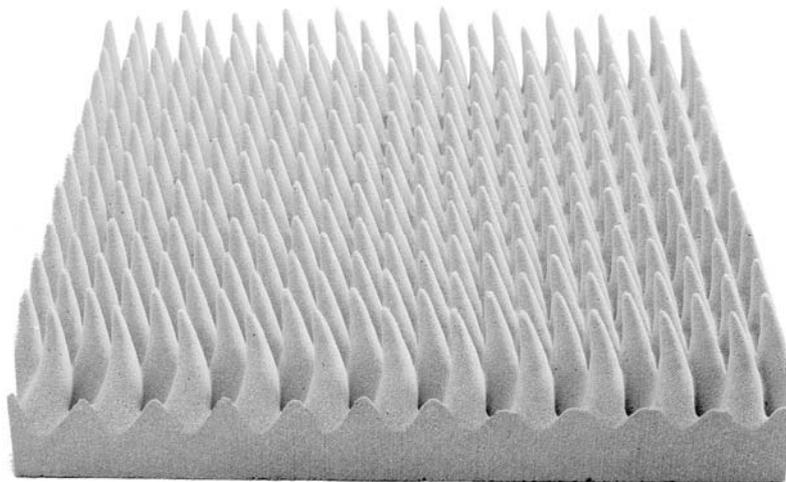
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■ Nominal dimensions and weights of ECCOSORB CV



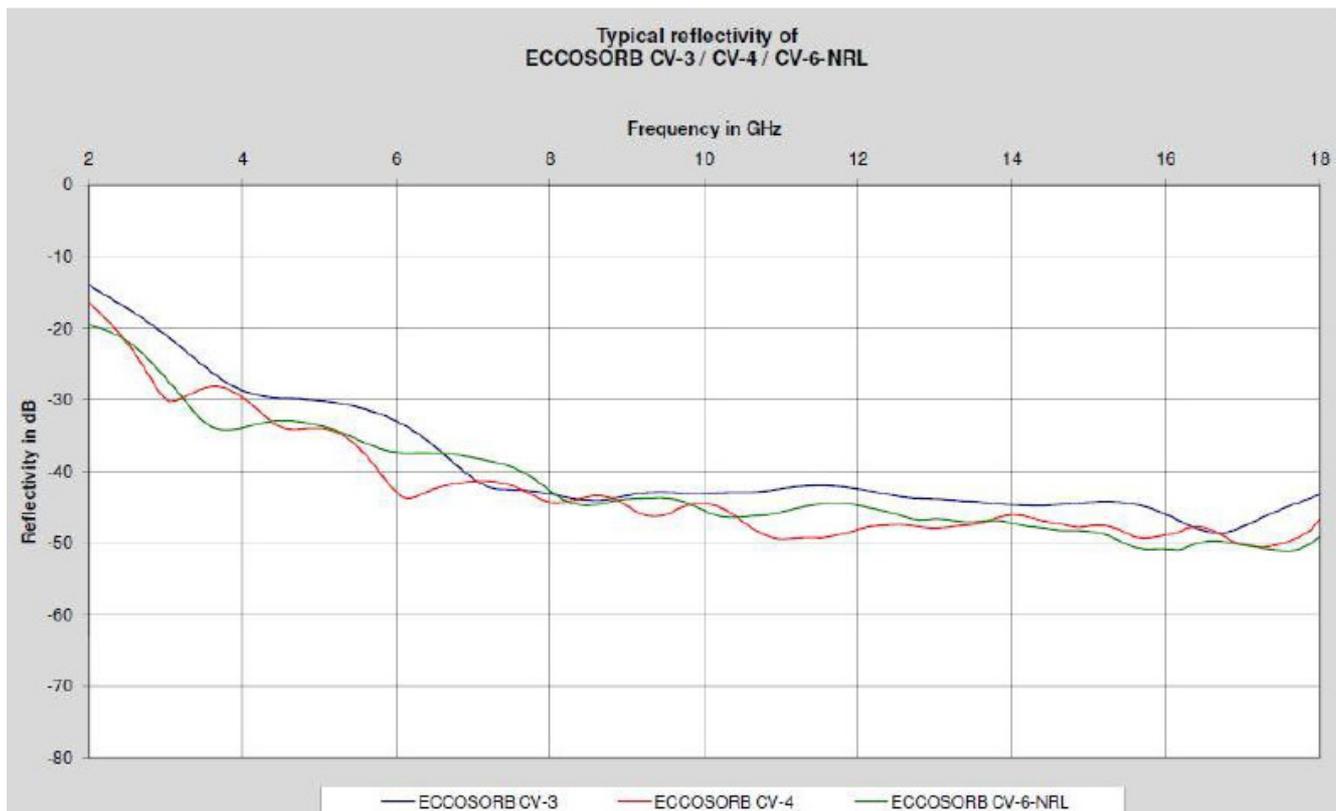
ECCOSORB CV grade	Total height A (cm)	Number of pyramids per piece	Nominal weight (kg)
ECCOSORB CV-3	6.7	251	0.9
ECCOSORB CV-4	9.8	251	1.2
ECCOSORB CV-6-NRL	15.3	242	2.0



■ Electromagnetic properties

The table below gives the specified reflectivity values, shown the frequency at which a particular reflectivity can be expected for each grade.

Frequency limit (in GHz) for a given reflectivity			
	-20 dB	-30 dB	-40 dB
ECCOSORB CV-3	4	7	8
ECCOSORB CV-4	4	6	8
ECCOSORB CV-6-NRL	2.5	4.5	6



ECCOSORB[®] CV

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■ Availability

ECCOSORB CV is available in standard piece sizes of 61 x 61 cm, in three grades having thicknesses of 7, 10 and 15 centimetres. The thickness determines primarily the low frequency end of performance; all grades have similar performance at millimetre wave frequencies.

ECCOSORB CV is supplied with the front surface painted white. For use in anechoic chambers, the standard colour is always blue, unless otherwise specified.

If the primary application is for millimetre wave frequencies, it is recommended to ask for the absorber to be supplied without paint, as it can have a negative effect on the reflectivity performance.

■ Instructions for use

E&C ADHESIVE 13111, a contact adhesive, is recommended and will bond the absorber to clean surfaces of metal, wood and common plastics or plastic composites. It is brushed or sprayed onto both the back surface of the absorber and the substrate surface, allowed to become tacky in 3 to 5 minutes, and then the two surfaces are pushed together with slight pressure to form a contact adhesion. The bonded piece should be allowed to sit overnight for complete evaporation.