

ECCOSORB® ANW

Waterproof, Fuel-Proof, Flexible Foam Sheet Broadband Microwave Absorbers

Material Characteristics

- Lightweight, flexible, broadband, open-cell, polyurethane foam absorber sealed in an impervious neoprene coated nylon fabric
- Carbon loaded, laminated polyurethane sheets
- Fire retardant and self extinguishing
- Frequency range from 600 MHz -40 GHz
- Designed to reflect less than -20 dB of normal incident energy above specified frequencies and relative to a metal plate
- Base foam does not support fungal growth per MIL-STD-810E

Applications

- ECCOSORB® ANW is waterproof and can be used outdoors or where the absorber will be in contact with fuel, lubricants, or hydraulic fluids
- ECCOSORB® ANW has been used in the isolation of electromagnetic components with a high insertion loss, shrouding antennas to alter the antenna patterns, as well as selective shadowing of parts of a target for RCS measurements
- Shadowing of posts, supports, lining walls, or covering structures on measurement ranges to reduce reflections
- ECCOSORB® ANW is also effective in reducing surface current waves on metal shapes
- For isolation of components or antennas by means of insertion loss, it can be used without a metal backing

Availability

- Standard sheets are 24" x 24" (61 cm x 61 cm)
- Thickness depends upon the lowest desired frequency of operation required
- ECCOSORB® ANW is available in other sizes and customer specified configurations, incorporating miter cuts or attachment to metal parts
- If the use of neoprene nylon fabric is not practical, small contoured parts can be sealed with a flexible, sprayable impervious coating.
- Can be manufactured, on special order, on a mandrel, to take a contoured shape.

Instructions for Use

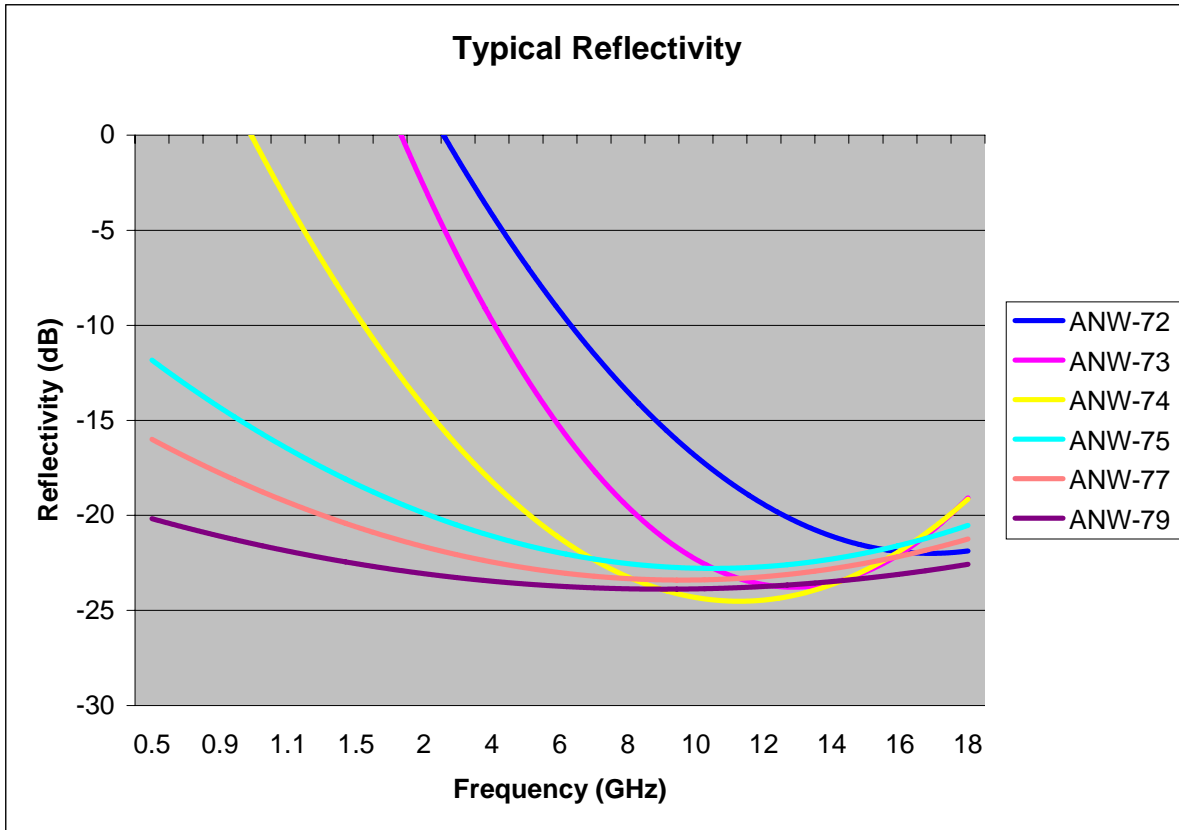
- To obtain low reflectivity, the absorbers must be mounted on a metal surface. If a metal surface is not available, ECCOSORB® ANW can be supplied metal backed with aluminum foil (ML) inside the sealed absorber package
- Layering of multiple pieces or slicing off part of the thickness will degrade the overall performance
- Reflectivity performance also degrades for off-normal bistatic incidence and at different rates for different polarizations
- ECCOSORB® ANW can be securely bonded to itself or to other materials such as metal, wood, and common plastic composites. The recommended adhesive is ECCOSTOCK® 13-111-NF

Typical Properties

Color (front surface stenciled)	Olive Green
Max. Service Temperature, °F (°C)	248 (120)
Power Handling, W/cm ²	0.15
Thermal Conductivity, cal-cm/sec- cm ² -°C	6.8 x 10 ⁻⁵
Fire Retardancy	ASTM 1692-59T

	Reflectivity range (>20 dB)	Thickness Inch (cm)	Weight lb/piece (kg/piece)	Density oz/in ³ (g/cm ³)
ANW-72	>20 GHz	0.24 (0.6)	0.6 (0.25)	0.06 (0.11)
ANW-73	>7.5 GHz	0.39 (1.0)	1.1 (0.50)	0.08 (0.13)
ANW-74	>3.5 GHz	0.75 (1.9)	1.5 (0.70)	0.06 (0.10)
ANW-75	>2.4 GHz	1.14 (2.9)	1.8 (0.80)	0.04 (0.07)
ANW-77	>1.2 GHz	2.24 (5.7)	3.3 (1.50)	0.04 (0.07)
ANW-79	>600 MHz	4.49 (11.4)	6.5 (2.95)	0.04 (0.07)

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