



Flexible & Thin-type radio absorbers

EC-SORB AN is a light weight flexible foam sheet broadband microwave absorber. It can be readily cemented to or draped over items which produce undesired reflection.

Representative use

Examples are radar antenna nacelles, anechoic enclosures, antenna or target test mounts in radar ranges, etc.

Reflectance factor

By appropriate choice of design type, less than 1% reflection for normally incident energy can be obtained over several frequency bands ranging from 0.6 to 50 GHz (see performance table and curves on next page).

EC-SORB AN is equally effective against linear, elliptical or circular polarization.

It is relatively insensitive to changes in incidence angle; for example, the reflectivity of EC-SORB AN75 at 70° incidence, at parallel polarization, at 9.5 GHz has been measured at 17 dB below a metal plate.

Reflection of visible light and infrared

Typical infrared reflectance ranges from 0.1% at 1 micron to 6% at 40 microns for any surface color. Visible light reflectance is 0.1% when colored black; standard EC-SORB AN is light blue surfaced to improve light reflection, while not appreciably affecting infrared reflectance.

Handling procedure

Installation is straightforward. EC-SORB AN can cut to appropriate shape with scissors or a sharp knife; a household electric knife has been found to be especially effective. It can be formed easily to compound curves. It may be attached to either metallic surfaces or non-metallic surfaces. Metallic surface is preferred for rated electrical performance of the absorber. However, it is permissible to use non-metallic mounting surfaces or no backing at all still achieve adequate reflectivity characteristics.



EC-SORB® AN

Installation

Many techniques are possible for permanent attachment to surfaces.

After chloroprene adhesive sprayed or brushed on both surfaces, leave it for a few minutes to 10 minutes, then press installation surface.

They can also be used to join edges of absorber to form a continuous blanket.

The amount of adhesive required absorber per sheet varies widely, depending on working methods, please refer to the quantity as below.

With 1 gallon chloroprene adhesive

- 1) With spray: 15~20pcs
- 2) With brush: 10~12pcs
- 3) For vertical and overhead installations, nails or small serrated pins attachment surface have been used successfully.
- 4) If you need to be able to instantly attach and detach the absorber, put a velcro zipper the back of absorber with chloroprene adhesive.

Environmental condition

- 1) Performance is not impaired by exposure to high relative humidity.
- 2) Useful temperature range is from -50°C (-58° F) to +120°C (248° F) .
- 3) For continuous use -20°C (-4° F) to +80°C (176° F) .
- 4) In situations where the absorber will be in contact with water, fuel, or hydraulic fluids and for outdoor exposure, EC-SORB AN-W or EC-SORB AN-P is recommended.

Feature size

EC-SORB AN can be furnished to special order in any size desired.

Standard sheet size is 61cm x 61cm (24in x 24in).

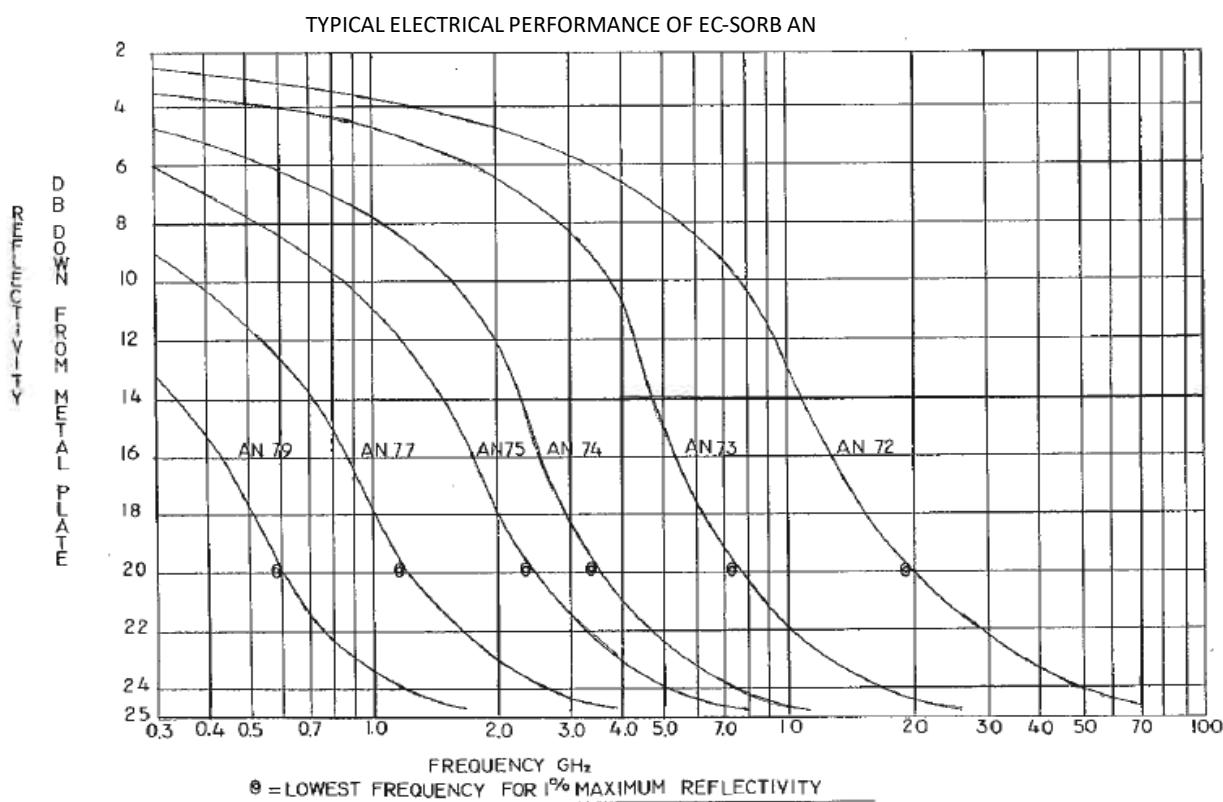
Note

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It is offered solely for consideration, investigation, and verification.

Performance Table

Type	Frequency	Bands covered	Maximum Power Reflectivity	Sheet Size	Nominal Thickness	Nominal Weight Kg/Sq. m2
EC-SORB AN72	20 GHz And above	K	1%	61cm x 61cm (24" x 24")	0.6cm 1/4"	0.5
EC-SORB AN73	7.5 GHz And above	X, Ku, K	1%	61cm x 61cm (24" x 24")	1.0cm 3/8"	1.0
EC-SORB AN74	3.5 GHz And above	C,A,B	1%	61cm x 61cm (24" x 24")	1.9cm 3/4"	1.5
EC-SORB AN75	2.4 GHz And above	S,C,A,B	1%	61cm x 61cm (24" x 24")	2.9cm 1-1/8"	2.4
EC-SORB AN77	1.2 GHz And above	X, Ku, K	1%	61cm x 61cm (24" x 24")	5.7cm 2-1/4""	4.4
EC-SORB AN79	0.6 GHz And above	L,S,C,A B, X, Ku, K UHF	1%	61cm x 61cm (24" x 24")	11.4cm 4-1/2"	9.8



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