



Resonance & Thin Sheet radio wave absorber

Briefing & Reflection Coefficient

EC-SORB® SF is the thin sheet resonance type radio wave absorbers, which is selectable the bandwidth from 1GHz to 16GHz. And the reflection coefficient of normal incident angle (almost vertical) each for resonance frequency will be about 1% (-20dB). We could support the demand among 17GHz to 22GHz as special customized. During 1GHz to 2GHz, the response would be a little bit worse as the next page Table.

The following Table indicates the reflection coefficient and absorbers size each for the resonance frequencies. The decline rate for the big incident angle would be much bigger than that of Wideband radio wave absorbers. For example, the reflection coefficient at the resonance point would be -25dB, it will be -20dB @ incident angle 30°, -16dB @ 45°.



Physical Features

Due to Silicon Rubber for basic material, they are endurable among -54°C to +160°C and available to use on the outdoor environment conditions. Also, they are flexible and easy to seal on the curved surface.

Typical application

EC-SORB® SF is much suitable for the application, especially the demanded thin materials and non-demanded the wideband absorbing, like Antenna propped equipment, Ship mast, for Suppression undemand reflected wave from outdoors implements, Radar Nacelle and the lining (especially High Voltage area) of Magnetron Case.

Type Name & Typ. Size

The numbers of Type is meaning the resonance frequency (GHz). e.g. EC-SORB®SF-5.5 is resonance absorbing at 5.5GHz. All of size are common, 30.5cm×30.5cm and thickness and weigh are depend on the resonance frequency as table.

Attention for handling and how to attachment

Easy cutting by normal Scissors. EC-SORB®SF is demanded to direct-attached to a Metal surface. The procedure is as follows,

- 1) Cleaning & Degreasing metal surface
- 2) To attachment EC-SORB®SF to the surface, demanded silicone adhesive
- 3) In case of attaching to the non-metal surface, demanded the metal backing by aluminum, etc. before sealing.

This Information, while believed to be completely reliable, is not to be taken as warranty for which we assume legal responsibility nor as permission or recommendation to practice any patented invention without license. It is offered for consideration, investigation and verification.

The information on this data are provided for your Development, Research, Inspection, etc., we are pleased with your reference this data for your review.

TYPE.	Thickness (cm)	Weight (kg/m ²)	Frequency (GHz)	Absorb. (dB)	Size (mm)
SF-1.0	0.47	22.5	1	≥ 12	305 x 305 ≥ 20
SF-1.5	0.31	15	1.5	≥ 16	
SF-2.0	0.23	11.3	2	≥ 18	
SF-2.5	0.21	10.1	2.5		
SF-3.0	0.2	9.3	3		
SF-3.5	0.2	8.7	3.5		
SF-4.0	0.23	9	4		
SF-4.5	0.22	8.4	4.5		
SF-5.0	0.2	7.7	5		
SF-5.5	0.22	7.6	5.5		
SF-6.0	0.21	7.2	6		
SF-6.5	0.19	6.8	6.5		
SF-7.0	0.18	6.4	7		
SF-7.5	0.17	6.1	7.5		
SF-8.0	0.16	5.6	8		
SF-8.5	0.15	5.3	8.5		
SF-9.0	0.18	5.6	9		
SF-9.5	0.16	5.1	9.5		
SF-10.0	0.15	4.9	10		
SF-10.5	0.15	4.6	10.5		
SF-11.0	0.14	4.5	11		
SF-12.0	0.13	4.1	12		
SF-13.0	0.14	4	13		
SF-14.0	0.12	3.7	14		
SF-15.0	0.12	3.4	15		
SF-16.0	0.11	3.2	16		

※ For SF-28MB, SF-76.5MB, please refer the unique catalogue each for.

※ The above table shows the Typ. Value, not Guaranteed.
The specification may change without advanced notice for any improvement.

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