



TWO PART POLYURETHANE COATING

Eccosorb Coating 300 is a two-part polyurethane coating that is heavily loaded with iron to provide its absorbing characteristics. It is a thixotropic coating that can be brushed on or sprayed on using common spray equipment.

FEATURES AND BENEFITS

- Conformable
- Silicone-free

MARKETS

- Commercial Telecom
- Security and Defense

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSORB COATING 300
Frequency Range	>1 GHz
Max Service Temperature °C (°F)	150 (302)
Density (g/cc)	4.6
Surface Weight of 0.7 mm thick coating (kg/m ²)	3.22
Mix Ratio Paint: Catalyst	100:1
Recommended Thickness of each coating (µm)	100 - 150
Pot Life	2 hours

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

ELECTROMAGNETIC PROPERTIES	ECCOSORB COATING 300	
	3 GHz	8.6 GHz
Dielectric Constant	22.8	4.6
Dielectric Loss Tangent	0	0
Magnetic Permeability	3.79	1.09
Magnetic Loss Tangent	0.69	1.98
Attenuation (dB/cm)	20	63
Impedance Magnitude (Z/Z ₀)	0.4	0.4

APPLICATIONS

- Eccosorb Coating 300 is designed to reduce the radar cross section of objects, to reduce false echo or ghost images on ship radar, and to attenuate surface currents that are generated by radiation impinging on metal surfaces.
- Eccosorb Coating 300 is designed for use on compound surfaces where flat sheet elastomer or foam absorbers are not desirable.
- To operate as a specular absorber such that resonant absorption at a particular frequency is obtained, it is necessary for the Eccosorb Coating 300 to be bonded to a metal surface. The overall thickness of the coating is critical to perform as a specular absorber and is attained by applying several layers until the desired performance is achieved.

AVAILABILITY

- Please contact your local supplier as there might be regional differences with regard to sizes and packaging.

INSTRUCTIONS FOR USE

- The system has to be applied in dry conditions
- Make sure that the surface to be coated is clean and free of oil and dusts.
- The temperature should be higher than 15 °C during application and curing.
- Thoroughly mix the paint until homogeneous.
- Add the catalyst in the correct weight ratio, see Typical Properties Table above.
- Pot life is 2 hours.
- It is recommended to build up the total thickness of the coating in steps of 100 - 150 µm with flash times of one hour between steps. The total layer should be cured for 24 hours minimum at room temperature. For layers thicker than 500 µm, the curing steps should be 24 hours after each 500 µm layer.
- For slightly accelerated curing of the final thickness, 2 hours at 80 °C is recommended. Flash point between layer applications must be maintained to ensure that the solvent has evaporated.
- For thinning, small amount of MEK may be used. Extended flash points are required to evaporate solvent.
- Thickness note :
Eccosorb Coating 300 is applied in thin layers until the correct thickness is obtained. Correct thickness is determined on a case-by-case situation depending on application and frequency of operation.