

# Eccosorb® LS

# Lossy, Flexible, Foam Microwave Absorber



# LOSSY, FLEXIBLE FOAM ABSORBER

Eccosorb LS is the most widely known, used, and recommended polyurethane foam absorber for both isolation/ insertion loss as well as cavity resonance purpose. Eccosorb LS obtains its microwave properties via impregnation with a carbon black dispersion and is therefore electrically conductive. It is a cost efficient solution for many applications over the thinner rubber absorbers.

#### **FEATURES AND BENEFITS**

- Flexible, foam material
- High loss, low density
- Tuned serie

#### **MARKETS**

- Commercial Telecom
- Test Boxes
- Security and Defense
- Sensor

## **SPECIFICATIONS**

TYPICAL PROPERTIES	ECCOSORB LS
Max. Service Temperature °C (°F)	90 (194)
Frequency Range	≥ 1 GHz

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

	Attenuation (dB/cm)		Relative Impedance ( Z /Z <sub>0</sub> )	
	3 GHz	10 GHz	3 GHz	10 GHz
LS-14	1.0	1.7	0.83	0.89
LS-16	1.5	2.3	0.78	0.87
LS-18	3.2	4.7	0.69	0.82
LS-20	4.2	7.0	0.61	0.78
LS-22	7.4	14.9	0.55	0.74
LS-24	11	24	0.25	0.44
LS-26	16	34	0.18	0.31
LS-28	20	40	0.16	0.27
LS-30	24	46	0.13	0.22

USA: +1.866.928.8181 Europe: +49.8031.24600 Asia: +86.755.2714.1166

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# **APPLICATIONS**

- Eccosorb LS is used to lower cavity Q's in RF amplifiers, oscillators, cabinets containing microwave devices, computer housings, LNB's and isolation of antennas by insertion loss.
- Eccosorb LS is also used to reduce surface currents on radiating elements and outer ground-plane type surfaces.
- Reflectivity of an object (metal or otherwise) can be reduced somewhat by applying one or more layers of Eccosorb LS to its surface.



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## **AVAILABILITY**

- Standard sheets are 610mm x 610mm (24"x24").
- Standard thicknesses are 3.2 mm (1/8"), 6.4 mm (1/4"), 9.5 mm (3/8"), 12.7 mm (1/2"), 19.1 mm (3/4").
- All Eccosorb LS types can be delivered in special sizes or customer specified configurations upon request. This includes die-cut and kiss cut parts to reduce installation labor by allowing quick assembly.
- Usually Eccosorb LS is supplied with a pressure sensitive adhesive.
- Upon special request, Eccosorb LS can be supplied with an anti-dust coating to prevent carbon fallout.
- It can also be supplied, upon request, with a coating to prevent moisture uptake in high humidity to moderately wet environments.

## **INSTRUCTIONS FOR USE**

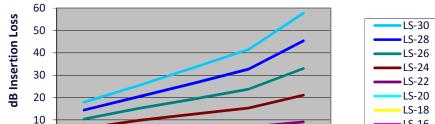
0

3.2

• For optimal performance, Eccosorb LS should be bonded to a metallic surface.

Approximate Insertion Loss at 3 GHz and 45°

- To obtain a strong bond, the surface should be thoroughly cleaned with a degreasing solvent.
- It can be securely bonded to itself or to other materials such as metal, wood and common
  plastic composites. Our specific Eccostock® foam adhesive is recommended or the selfadhesive version can be used.
- The material can be easily cut with a sharp knife, scissors or die.



12.7

19.1

Thickness (mm)

6.4

9.5

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## RFP-DS-LS 070116

LS-16 LS-14