

ECCOSHIELD[®] SV-R

CONDUCTIVE SILICONE RUBBER SHEET

Description :

Eccoshield SV-R is a highly conductive silicone rubber material. It has high temperature and compression set characteristics.

Application :

Eccoshield SV-R is used as a gasket material where both RF and hermetic sealing are required. It can act as a substitute for metals in a variety of applications including current carrying devices.

Physical Properties :

	SV-R
Specific gravity	3.5
Elongation at rupture (%)	>50
Tensile strength at rupture (kg/cm ²)	8.5
Hardness, Shore A	45
Volume resistivity (Ohm.cm)	0.001
Thermal conductivity (W/mK)	2.0
Max Service temperature (°C)	200 continuous 230 short time

Compression Test on sheet stock at 25°C:
Maximum compression was 14.5 % at 45 kg/cm². Loading was increased to 183 kg/cm² without further measurable compression (cold flow). Sheet recovered completely, almost immediately.

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Electromagnetic Properties :

Eccoshield SV-R will provide high levels of insertion loss as a flat gasket between mating metal surfaces, Typical IL values are shown below.

Insertion Loss, dB				
200 KHz		1 MHz	400 MHz	10 GHz
Magnetic	Electric	Electric	Plane	Plane
70	100	100	100	100

Availability :

Eccoshield SV-R is available in standard dimensions of 15.2 cm x 30.5 cm and 30.5 cm x 30.5 cm.
Available sheet thicknesses : 0.51 mm, 0.76 mm, 1.02 mm, 1.27 mm, 1.52 mm.
Die cut gaskets, special shapes, extrusions and special sheet sizes are available upon request.

Instructions for use :

Eccoshield SV-R increases in resistivity as tension is applied. However, when relieved, it returns to its original value. Eccoshield SV-R has been used at a current density as high as 170 A/cm² after being conditioned by gradually raising the current density. Even at extreme low temperature flexibility is excellent. Compression set at clamping pressures in excess of 70 kg/cm² at room temperature for long periods, is negligible. Eccoshield SV-R can be bonded to surfaces using Eccoshield RVS (Technical Bulletin ES-210), an electrically conductive one-part pressure sensitive adhesive having the same shielding and temperature capabilities as Eccoshield SV-R.



Safety Considerations: It is recommended to consult the EMERSON & CUMING MICROWAVE PRODUCTS product literature, including material safety data sheets, prior to use EMERSON & CUMING MICROWAVE PRODUCTS products. These may be obtained from your local sales office.

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