

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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ECCOSORB® SV-R

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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 thickness : 0,25 mm; 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.

WARRANTY: Values shown are based on testing of laboratory test specimens and represent data that falls within the normal range of properties of the material. These values are not intended for use in establishing maximum, minimum or ranges of values for specification purposes. Any determination of the suitability of the material or any use contemplated by the user and the manner of such use is the sole responsibility of the user who must assure that the material as subsequently processed meets the needs of this particular product or use. We hope the information given here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale INCLUDING THOSE LIMITING WARRANTIES AND REMEDIES which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

2008/10 - V02/1

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