

ECCOSHIELD® SVR

Conductive Silicone Rubber Sheet

Material Characteristics

- ECCOSHIELD® SVR is a highly conductive silver filled sheet material based on silicone rubber
- It has high temperature and compression set characteristics
- ECCOSHIELD® SVR increases in resistivity as tension is applied. However, when relieved it returns to its original value
- ECCOSHIELD® SVR will provide high levels of insertion loss as a flat gasket between mating metal surfaces, see *Insertion Loss table at right*
- Extreme low temperature flexibility is excellent

Applications

- ECCOSHIELD® SVR is used as a gasket material where both RF and hermetic sealing are required
- ECCOSHIELD® SVR can act as a substitute for metals in a variety of applications including current carrying devices
- ECCOSHIELD® SVR has been used at a current density of 1097 amperes/in² (170 amperes/cm²) after being conditioned by gradually raising the current density. Compression set of sheet stock, at clamping pressures in excess of 70 kg/cm² at room temperature for long periods of time, is negligible

Shipping & Availability

- ECCOSHIELD® SVR is available in two standard sheet sizes of 6" x 12" (15.25 cm x 30.5 cm) and 12" x 12" (30.5 cm x 30.5 cm)
- Sheets are available in thicknesses of .020", .030", .040", .050" & .060" (0.51, 0.76, 1.02, 1.27 & 1.52mm)
- For pre-form die cut gaskets, please consult our Applications Engineering Group
- The recommended adhesive for ECCOSHIELD® SVR is our conductive ECCOSHIELD® RVS adhesive

Typical Properties

| | |
|---|------------------------------------|
| Color | Silver-tan |
| Continuous Service Temperature | 392°F (200°C) |
| Short Time Service Temperature | 446°F (230°C) |
| Density | 3.58 g/cc |
| Hardness, Shore A | >60 |
| Elongation at Rupture | >50% |
| Volume Resistivity | 1 x 10 ⁻³ ohm-cm |
| Compressive Strength | ~260 lb/in ² |
| Tensile Strength at Rupture | 121 psi, (8.5 kg/cm ²) |
| Thermal Conductivity (cal-cm)/(sec- cm ² -°C) | 0.01 |

Insertion Loss, dB

| | 200 kHz | 1 MHz | 400 MHz | 10 GHz |
|----------|----------|----------|---------|--------|
| Magnetic | Electric | Electric | Plane | Plane |
| | 70 | 100 | 100 | 100 |