

Eccoshield® ES

Conductive Surface Coating

CONDUCTIVE SURFACE COATING

Eccoshield ES is a highly conductive surface coating that is a fine silver based lacquer and is sufficiently fluid enough to readily flow into cracks. Eccoshield ES will not fill gross voids at joints or seams; use a caulking compound such as Eccoshield VY. Metal to metal contact is improved significantly by applying Eccoshield ES. The coating fills slight irregularities and makes such intimate contact with exposed metal that even corroded joints can be made acceptable RF seals. Eccoshield ES adheres well to metals, plastics, ceramics, wood and concrete. When applied to a non-conductor, surface resistivity is substantially less than 1 ohm/square. Successive coats decrease surface resistivity even further.

FEATURES AND BENEFITS

- Highly conductive coating
- Fluid consistency allows material to readily flow into cracks to improve shielding effectiveness

MARKETS

- Commercial Telecom
- Test and Measurement

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSHIELD ES
Service Temperature °C (°F)	-35 to 66 (-30 to 150)
Surface Resistivity Ohm/sq	0.02
Density g/cc	1.7
Coverage per kg(2.2lb), .075mm thick layer	7m ² (79.2 sq ft)
Per kg(2.2lb) seam coverage in tight contact	120m (394 linear feet)

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

APPLICATIONS

- Eccoshield ES was specifically formulated for RF shielding applications and is often used to improve the RF integrity of metal housings or screen rooms.
- By applying Eccoshield ES to joints, seams, and contacting surfaces, it is possible to convert a reasonably good metal structure to one of greater than 100 dB insertion loss from 15 kHz to 10 GHz.

AVAILABILITY

- Please contact your local supplier as there might be regional differences with regard to packaging.
- Eccoshield ES is a hazardous material (flammable).

INSTRUCTIONS FOR USE

- Eccoshield ES can be brushed or sprayed, with adequate ventilation recommended. When sprayed using standard spraying equipment, it can drive the silver particles into crevices and other hard to reach places.
- If a diluent is needed, use methyl ethyl ketone MEK.
- Remove grease, oil, wax and other debris from the surface to be coated with a suitable solvent or cleaning agent. If electrical contact is to be established with a metal base, the metal surface must be free from non-conductive films.
- Shake the contents of the container in which the Eccoshield ES is received in until it is uniform in consistency, then pour out the desired amount.
- Apply the Eccoshield ES to the prepared surface with either a brush or spraying application
- The coating will normally air dry in one hour to a surface resistivity of less than 1 ohm/square. Apply additional coats if needed.
- The handling of this product should present no problems if ordinary care is exercised to avoid breathing vapours, the skin is protected against contamination, swallowing is avoided and the eyes are protected.
- Do not use near an open flame as it is highly flammable. The flash point is 4 °C. Keep away from direct sunlight, ovens, radiators, hot water, and other heat sources; high temperatures may cause bursting of the container.

