



## TECHNICAL DATA SHEET

### SHIELDING SOLUTIONS ECC-SCS001 CONDUCTIVE CAULK / SEALANT MATERIAL

#### Product overview

ECC-SCS001 is an electrically conductive composite material comprising of silicone elastomer and silver plated copper particles. It is designed to be easily applied to panel joints / seams and or the small clearances that result from non-continuous mechanical fixing in sheet metal enclosures. On application it cures at room temperature to form a highly conductive elastomeric section / joint that has good adhesion to most commonly used metals / substrates. When fully cured it will prevent water ingress and improve the EMI shielding performance of panel joints / overlaps.

ECC-SCS001 has excellent high temperature resistance and long-term ageing characteristics. The silver plated filler used in this material provides a reliable low impedance connection between suitably prepared metallic surfaces.

#### Uncured Properties

|                                |                   |
|--------------------------------|-------------------|
| Colour                         | Tan               |
| Form                           | Thixotropic paste |
| Cure time (approx 4mm section) | 12 hours          |



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#### Cured Properties

|   |                        |
|---|------------------------|
| Density                                     | 2.7gcm <sup>-3</sup>   |
| Hardness                                    | 60 Shore A             |
| Volume resistivity                          | <0.01Ω.cm              |
| Adhesion                                    | >100 Ncm <sup>-2</sup> |
| Attenuation – 100MHz to 10GHz (MIL-STD 285) | 80 – 115dB (typically) |
| Elongation                                  | 100%                   |
| Service temperature range                   | -55°C to 125°C         |

#### Packaging

ECC-SCS001 can be supplied in 30ml and 55ml dispense barrels, both of which incorporate luer lock fastenings at the nozzle that allow a wide range of dispense tips to be easily attached or detached. For larger scale applications it can be supplied in 2.5 fl.oz (70ml) or 6 fl.oz (170ml) Semco cartridges or standard 310ml sealant cartridges from which it can be directly applied using a suitable caulking gun.

#### Storage

It is recommended that when not in use that the material is stored in a cool dark, dry place. If the facility exists then some form of refrigerated or freezer storage is ideal. If kept properly sealed and in a suitable location then the material will remain usable for up to 6 weeks.



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#### Handling

When using this material observe usual standards of industrial hygiene/practice. Avoid skin/eye contact and work in a well ventilated area. For more detailed information please refer to the MSDS (Material Safety Data Sheet)