

## MCS

### Moisture Cure Silicone Conformal Coating

MCS is a 100% solids silicone conformal coating, specifically designed for the protection of electronic circuitry. The coating does not contain any solvents and can cure at room temperature for ease of processing. MCS is soft, flexible low stress conformal coating, ideally suited for applications with delicate components.

- 100% solids coating, no volatile solvent; operator and environmentally friendly
- Soft conformal coating; ideal for applications with delicate components
- Room temperature cure and fast touch dry time; aids efficient application processes
- Very wide operating temperature range; particularly suited to high temperature applications

<b>Approvals</b>	<b>RoHS Compliant (2015/863/EU):</b> <b>REACH Compliant:</b> <b>IPC-CC-830:</b> <b>MIL-I-46058C:</b>	<b>Yes</b> <b>Yes</b> <b>Meets Requirements</b> <b>Meets Requirements</b>
<b>Liquid Properties</b>	Appearance: Density @ 20°C: Flash Point: Solids content: Viscosity @ 20°C (mPa s): Touch Dry Time at 20°C: Recommended Drying Time: UV Trace:	Translucent liquid 1.0 g/ml None 100% 500 <10 minutes 24 Hours @ 20°C Yes
<b>Dry Film Coating</b>	Colour: Temperature Range: Flammability: Shore Hardness Moisture Resistance: Dielectric Strength: Surface Insulation Resistance: Dielectric Constant: Coefficient of Expansion: Dissipation Factor:	Clear -65 to 200°C Meets UL94 V-0 A20 $2 \times 10^{10} \Omega$ 90 kV/mm $1 \times 10^{15} \Omega$ 2.5 @ 1 MHz 313 ppm/°C 0.01

<b><u>Description</u></b>	<b><u>Packaging</u></b>	<b><u>Order Code</u></b>	<b><u>Shelf Life</u></b>
Moisture Cure Silicone	4 Litre Bulk	EMCS04L	12 Months

### **Directions for Use**

Substrates should be thoroughly cleaned before coating. This is required to ensure that satisfactory adhesion to the substrate is achieved. Also, all flux residues must be removed as they may become corrosive if left on the PCB. Electrolube manufacture a range of cleaning products using both hydrocarbon solvent and aqueous technology. Electrolube cleaning products produce results within Military specification.

MCS can be sprayed or brushed, the thickness of the coating depends on the application (typically 25-200 microns).

MCS requires atmospheric moisture to cure, a minimum of 30% RH is recommended to ensure the coating fully cures after 24 hours. The time required to cure is dependent on the method of application, film thickness temperature and humidity. The cure time can be accelerated with heat. During storage, containers should be kept tightly sealed and the head space purged with dry nitrogen to avoid moisture contamination.

### **Inspection**

MCS contains a UV trace, which allows inspection of the PCB after coating to ensure complete and even coverage; the stronger the reflected UV light, the thicker the coating layer is.

Revision 1: Nov 2018