

## DCA\_MV

### Silicone Conformal Coating

#### Product Description

DCA\_MV is a transparent, flexible, silicone conformal coating and is specifically designed for the protection of electronic circuitry. DCA\_MV has excellent mechanical and dielectric properties even after thermal cycling.

#### Features

- Excellent adhesion to a wide variety of substrates
- Wide operating temperature range, -60°C ~ +200°C.
- Excellent dielectric properties and insulativity properties
- Excellent mechanical properties, including abrasion resistance and low temperature resistance

#### Approvals:

**MIL Approval (MIL- 1- 46058C):** **Meets approval**

**RoHS Compliant (2002/95/EC):** **Yes**

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

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Certificate No. FM 32082

### Liquid Properties:

Appearance:	Clear liquid
Specific Gravity (Density) @ 20°C:	1.1
Non-volatile content:	70%
Viscosity @ 20°C:	900 cps
Touch Dry:	15 minutes

### Dry Film Coating:

Colour:	Clear
Hardness:	Shore D 20
Operating Temperature Range:	-60°C to +200°C
Flammability:	Meets UL94 V- 0
Thermal Cycling(MIL- 1- 46058C):	Meets approval
Dielectric Strength:	18kV / mm
Dielectric Constant:	2.7
Dissipation Factor:	0.004
Volume Resistivity:	$0.5 \cdot 10^{14}$
Moisture Resistance (MIL-1-46058C):	Meets approval

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<b><u>Packaging</u></b>	<b><u>Description</u></b>	<b><u>Order Code</u></b>	<b><u>Shelf Life</u></b>
<u>DCA_MV Conformal Coating</u>	5 Litre Bulk	DCA_MV 05L	24 Months
<u>Thinner for hand spray gun</u>	5 Litre Bulk	DCT05L	36 Months
<u>Thinner for automated spray equipment</u>	5 Litre Bulk	LTCT05L	36 Months

### **Directions for Use**

DCA\_MV can be sprayed, dipped or brushed. As is the case for all solvent based conformal coatings, adequate extraction should be used (refer to MSDS for further information).

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.

### **Curing**

DCA\_MV can be cured either at room temperature or by an accelerated heat cure at 75°C to 100°C.

DCA\_MV is cured at room temperature by reaction with moisture in the air. A 0.1mm thick coating will be tack free in 15 to 30 minutes, and complete cure does not take place until 72 hours after coating. Suggested cure conditions are 23°C in air with at least 50% relative humidity. Higher temperatures and relative humidities will accelerate rate of cure.

DCA\_MV can be cured at elevated temperatures in an air circulating oven. A typical cure schedule is 10 minutes at room temperature followed by 10 minutes at 80°C. If the coating blisters or contains bubbles allow additional time at room temperature for the solvent to flash off prior to oven cure.

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## **Inspection**

DCA\_MV 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.

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