



# Provisional Technical Data Sheet

## NVOC Non-VOC Conformal Coating

### Product Description

A flexible, moisture cure, conformal coating based on polyurethane technology for the protection of electronic circuitry. NVOC has been specifically designed to eliminate the use of volatile organic solvents and is suitable for use in selective spray equipment.

### Features

- Excellent adhesion to a wide variety of substrates
- Wide operating temperature range
- Resistant to mould growth
- Excellent solvent resistance
- Cured coating can be removed with Electrolube Remover Gel (DRG)
- Contains a UV trace for ease of inspection
- Very low vapour pressure

### **Approvals**

**RoHS Compliant (2002/95/EC):  
IPC-CC-830**

**Yes  
Meets**

### **Liquid Properties**

|                                    |                   |
|------------------------------------|-------------------|
| Appearance:                        | Amber Liquid      |
| Specific Gravity (Density) @ 20°C: | 1.12g/ml          |
| Vapour Pressure (Calculated):      | < 0.01 KPa        |
| Solids content:                    | 100%              |
| Viscosity @ 20°C:                  | 85-95cPs          |
| Touch Dry:                         | 70 minutes @ 20°C |
| (Humidity Dependent)               | 30 minutes @ 60°C |
|                                    | 20 minutes @ 80°C |
| Recommended Drying Time:           | 36 Hours @ 20°C   |
|                                    | 4 Hours @ 60°C    |
|                                    | 2 Hours @ 80°C    |

### **Dry Film Coating**

|                                     |                        |
|-------------------------------------|------------------------|
| Colour:                             | Amber                  |
| Operating Temperature Range:        | -60°C to +125°C        |
| Max Temperature Range (30 mins)     | +150°C                 |
| Pencil Hardness                     | 7H                     |
| Flammability:                       | Meets UL94 V-0         |
| Thermal Cycling (MIL-1-46058C):     | Meets approval         |
| Insulation Resistance:              | > 1 x 10 <sup>13</sup> |
| Moisture Resistance (MIL-1-46058C): | Meets Approval         |

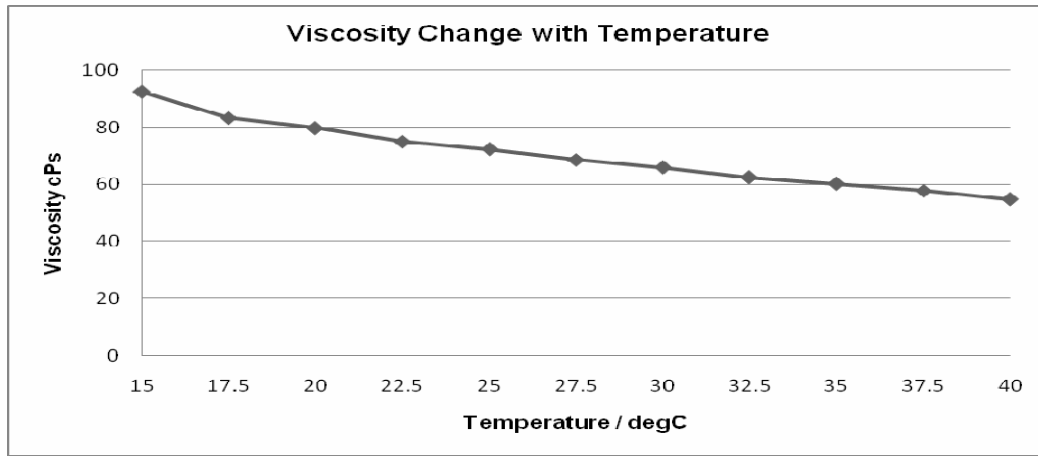
## **Directions For Use**

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. Please refer to the material safety data sheet for health and safety information.

## **Spraying – Bulk**

NVOC is supplied in a ready to use viscosity for spraying.

NVOC is suitable for use in both PVA and Asymmtek Select Coat equipment.



## **Drying**

NVOC can be dried at room temperature or accelerated via drying in either a convection or IR oven. A typical IR profile with the PCB set to a constant temperature of 80°C will achieve an initial cure time of approximately 30 minutes. Increasing the humidity of the surrounding area will also reduce the cure time of the coating.

## **Cleaning**

Electrolube's NVMC has been designed as a suitable cleaner for use with NVOC. Machines should be flushed through thoroughly with NVMC prior to coating use.

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