

## TFCF Fluorocoat Surface Modifier

TFCF is a specialist fluorinated polymer coating formulated to provide high levels of liquid repellence to printed circuit boards and other electronic devices. Once dried, TFCF has a low film strength and is therefore easily removed by minimal friction, allowing assemblies to be coated without masking.

- Very low surface energy; repels hydrocarbon and silicone oils, synthetic fluids and aqueous solutions
- Low solids content and low film strength once cured; connectors do not require masking
- Promotes cost effective and efficient application; quick touch dry time and simple coating procedure
- Contains a UV trace; ensures quality of coating by visual inspection

<b>Approvals</b>	<b>RoHS-2 Compliant (2011/65/EU):</b>	<b>Yes</b>
<b>Liquid Properties</b>	Appearance: Density @ 20°C (g/ml): VOC Content: Flash Point: Solids content: Viscosity @ 20°C (mPa s): Touch Dry Time: Recommended Drying Time:  Coverage @ ~2µm:	Colourless liquid 0.72 97% 7°C 2% 2 5 minutes 24 Hours @ 20°C 15 minutes @ 100°C (optional) * 13.8m <sup>2</sup> (Bulk) 3.5 m <sup>2</sup> (250ml Pump Spray) <small>* A slight increase in repellency occurs if the film is heat cured after drying</small>
<b>Dry Film Coating</b>	Colour: Operating Temperature Range: Flammability: Moisture Resistance: Surface Energy: Dielectric Strength: Surface Insulation Resistance:	Colourless -50°C to +125°C Self Extinguishing Excellent <18 dynes/cm 90 kV/mm 1 x 10 <sup>15</sup> Ω

<u>Description</u>	<u>Packaging</u>	<u>Order Code</u>	<u>Shelf Life</u>
Fluorocoat Surface Modifier	250ml pump spray 5 litre bulk	TFCF250ML TFCF05L	48 Months 48 Months

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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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BS EN ISO 9001:2008  
Certificate No. FM 32082

## **Directions for Use**

TFCF can be sprayed, dipped or brushed. It is not necessary to dilute TFCF before application. Temperatures of less than 16°C or relative humidity in excess of 75% are unsuitable for the application of TFCF. As is the case for all solvent based coatings, adequate extraction should be used (refer to MSDS for further information).

As TFCF has a low film strength, masking of connectors is not required prior to coating. Therefore, the quickest method of application, particularly for small components and circuit boards, is to dip coat. This can be done in a suitable dip coating bath, allowing some time for the coating to drain after withdrawal, before moving to a suitable drying cabinet.

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 100% Ozone Friendly cleaning products in both the hydrocarbon solvent and aqueous fields. Electrolube cleaning products produce results within Military specification.

## **Inspection**

TFCF 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; this coating has a low solids content. Fluorescence emission will occur between 400-500nm; peak emission is around 440nm.

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