

## TFCF

### Fluorocoat Surface Modifier

#### DESCRIPTION

**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.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

#### FEATURES AND BENEFITS

- 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

#### APPROVALS

Standard	Status
RoHS Compliant (2015/863/EU)	Yes

#### PRODUCT INFORMATION

For available packaging sizes please visit:

[electrolube.com](http://electrolube.com)

### PHYSICAL PROPERTIES

Category	Results
<b>Liquid Properties</b>	
Appearance	Colorless Liquid
Density @ 20 °C (g/mL)	0.72
VOC Content	97%
Flash Point	7 °C
Solid Content	2%
Viscosity (mPa s @ 20 °C)	2
Touch Dry	5 minutes
Cure Time 20 °C 100 °C	24 hours 15 minutes (Optional)*
Coverage @ ~2 µm	13.8 m <sup>2</sup> /L (Bulk) 3.5 m <sup>2</sup> (250 mL Pump Spray)
<b>Dry Film Coating</b>	
Color	Colorless
Operating Temperature Range (°C)	-50 to 125
Flammability	Self-extinguishing
Moisture Resistance	Excellent
Surface Energy	<18 dynes/cm
Dielectric Strength (kV/mm)	90
Surface Insulation Resistance	1 x 10 <sup>15</sup> Ω

\* A slight increase in repellency occurs if the film is eat cured after drying

### APPLICATION GUIDELINES

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. We manufacture a range of 100% Ozone Friendly cleaning products in both the hydrocarbon solvent and aqueous fields. Our 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. UV light in the region of 375nm should be used for inspection.

### ADDITIONAL INFORMATION

#### Shelf Life

Description	Shelf Life
250mL Pump Spray	48 Months
5 Litter Bulk	24 Months

### SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

### CONTACT INFORMATION

To confirm this document is the most recent version, please contact  
**TechnicalSupportTeam@hkw.co.uk**  
[www.electrolube.com](http://www.electrolube.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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