Fine-L-Kote™ 1700 Fluorinated Coating

Product# 23170, 23172, 23194, 23294, 23278

Product Description

Fine-L-Kote™ FL are an assortment of fluorinated polymer conformal coatings in a low surface tension, low GWP hydrofluoroether (HFE) solvent. They form highly repellant lightweight, thin films, protecting printed circuit boards (PCB) and electronic components against moisture, chemicals and corrosion. They are very easy to apply and very stable. Films are both highly hydrophobic and highly oleophobic, repelling oils, silicones and most solvents. Films provide anti-stiction, anti-migration, anti-wetting, anti-corrosive properties.

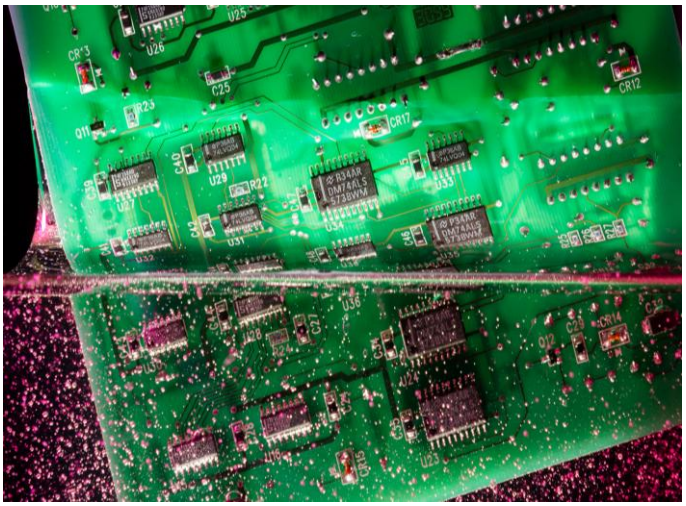
The HFE carrier solvent is non-ozone depleting, low in toxicity, RoHS compliant and VOC exempt per U.S. EPA. The low surface tension provides excellent surface wetting especially low standoff and fine pitch components.

Features / Benefits

- Engineered to protect printed circuit boards and electronic components from moisture and corrosion
- Features low surface energy, allowing lubricants, silicones, photoresist solutions, and other substances to bead and drain off coated surfaces easily
- Offers repellency and anti-wetting protection against liquids, including water, hydrocarbons, silicones, and photoresists
- Provides defense against corrosive gases and vapors as well as liquids
- Capable of withstanding temperatures up to 175°C (347°F) for 24 hours while retaining repellency
- Bonds effectively to a wide range of materials, including metals, glass, ceramics, polymers, composites, and laminates
- Thermally and electrically stable with excellent dielectric properties
- Simple to apply, drying quickly without the need for post-application curing
- Exceptional surface wetting, particularly under low-clearance SMT components
- Non-flammable, non-ozone-depleting, and has low toxicity
- Low global warming potential (GWP), RoHS compliant, and exempt from volatile organic compound (VOC) regulations (per the U.S. EPA)

Applications

- Displays and controls
- Data Communications
- Instrumentation
- Automotive Manufacturing
- Marine Manufacturing
- Process Control



Typical Properties

Physical state	Liquid
Solids	See Below Chart
Viscosity (cps)	See Below Chart
Boiling Point	61°C (142°F)
Flash Point	None
RoHS Compliant	Yes
Shelf life	5 Years Unopened

Performance and Application Data

Dry Time (min)	30-120 Seconds
Pencil Hardness	>/= H
Temperature Tolerance	175°C
Surface Tension	2 hrs. @77ºF / 25ºC, 80% RH
Contact Angle	66-76
Carrier Solvent GWP	No
Dielectric Constant	-76º to 392ºF (-60º to 200ºC)
Dielectric Strength	>1.4 x 1012
Resistance	>720
Dissipation Factor	3.75, 3.85
Glass Transition (Tg)	1.017, 0.719
UL94	V-0
Thermal Conductivity	0.1 W/m°K

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Performance and Application Data

Part Number	% Resin Solids	Typical DFT (Dip)	Viscosity	UV Traceable
23172	0.20%	0.1 µm	<1.0 cps	No
23170	2.00%	0.1 – 0.2 µm	<1.0 cps	No
23194	4.00%	0.3 – 0.6 µm	1.0 to 1.3 cps	No
23294	4.00%	0.3 – 0.6 µm	1.0 to 1.3 cps	Yes
23278	8.00%	0.8 -1.3 µm	4.5 to 5.5 cps	Yes

Technical and Application Assistance

Techspray provides a technical hotline to answer your technical and application related questions. The toll free number is 1-800-TECH-401. Note: This information is believed to be accurate. It is intended to present typical values and intended for professional end users having the skills to evaluate and use the data properly. Techspray does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

Usage Instructions

For industrial use only. Read SDS carefully prior to use. Before applying Fine-L-Kote™ coatings, clean circuit boards to remove contamination and allow to dry. Cleaning may be performed with Techspray G3, E-LINE™ and Precision-V defluxers.

The coating can be applied using spray, dip, brush, or selective deposition methods, depending on the safety and handling guidelines provided in the Safety Data Sheet (SDS). It is important to prevent water from entering the coating bath, as it can disrupt the deposition process. Surfaces to be coated must be clean and dry prior to application. Masking may not be necessary for larger connector types, but testing is always recommended. The solvent evaporates quickly, and the fluorinated polymer film will dry within minutes.