

EGF

Eltinert F Grease

DESCRIPTION

The Eltinert series of contact lubricants have been developed to provide superior protection to electrical contacts under the most difficult conditions. These include extended periods at high temperatures and under corrosive chemical atmospheres. They are also ideal for the protection of noble metals, either in switches or connectors. **EGF** has outstanding high temperature performance with less than 1% weight loss in 24 hours at 150 °C. **EGF** is suitable for continuous use up to 200°C and for shorter periods up to 300 °C.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- Excellent mechanical lubrication, greatly reduces friction
- Excellent electrical characteristics combined with very good plastics compatibility
- Excellent oxidation and chemical resistance; high protection in harsh environments
- Prevents and cures high contact resistance caused by silicone contamination

APPROVALS

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

PRODUCT INFORMATION

For available packaging sizes please visit:

electrolube.com

PHYSICAL PROPERTIES

| Category | Results |
|--|--|
| Typical Properties | |
| Color | White |
| Density (g/mL) | 1.9 |
| Temperature Range (°C) | -25 to 300 |
| Vapor Pressure @ 20 °C (Torr) @ 250 °C (Torr) | 1 x 10 ⁻⁸ 8 x 10 ⁻² |
| Evaporation Weight Loss % 7 days @ 100 °C | 0.8 |
| Copper Strip Corrosion (IP154 / ISO 2160) | ≤ 1b |
| Drop Point (IP32 / ISO 2176 (°C)) | > 250 |
| Cone Penetration Worked (ASTM D217, 60 Strokes @ 20 °C) | 280 |
| Consistency (NLGI) | 2 |
| Fließdruck (Flow Pressure) (DIN 51805, mbar @ -40 °C) | 1100 |
| Oil Bleed / Separation (IP121) | 5 % |
| Plastic Compatibility ABS PC | Test Test |
| Thickener | Fumed Silica |
| UV Trace | No |
| Base Oil Properties | |
| Base Oil Type | Complex Ester |
| Pour Point (ASTM D 97 (°C)) | -45 |
| Flash Point (COC ASTM D 92 (°C)) | 230 |
| Electrical Properties | |
| Dielectric Constant (ASTM D877/67 @ 250 °C) | 2.1 |
| Dielectric Strength (ASTM D877/67 @ 250 °C) (kV/mm) | 40 |

| Category | Results |
|--|----------------|
| Base Oil Properties | |
| Base Oil Type | PFPE |
| Base Oil Viscosity (Kinematic Viscosity (cSt)) | |
| 40 °C | 345 |
| 100 °C | 33 |
| Base Oil Viscosity Index (ASTM D 2270) | 135 |
| Pour Point (ASTM D 97 (°C)) | -25 |
| Flash Point (COC ASTM D 92 (°C)) | Not Determined |
| Mechanical Properties | |
| 4 Ball Wear (mm) | 1.071 |
| Weld Load (kgf) | 400 |

TYPICAL PRODUCT APPLICATION

Eltinert F grease (EGF) is non-melting and will not migrate from vertical contacts or surfaces. It has similar properties to the oil (EOF) but allows even greater protection from environmental conditions and is also recommended for applications involving heavy arcing.

The polar nature of these lubricants ensures good bonding to all metals, including gold. Although gold itself is not subject to environmental attack, gold plate is porous and attack can occur on the substrate metals, e.g., silver, copper or tin. Eltinert F prevents this attack and can allow the use of thinner gold plate.

Eltinert F fluorinated lubricants have two main areas of application:

1. As contact lubricants - particularly suitable for contacts involving gold and/or aggressive environments e.g., printed circuit edge connectors, plug connectors, rotary and sliding switches.
2. For the lubrication of plastics and rubbers, including those known to be particularly prone to solvent stress cracking.

The following plastics, normally regarded as prone to solvent stress cracking, are unaffected by Eltinert F at 70 °C: 'Noryl' (PPO/Polystyrene), Polystyrene, Impact modified polystyrene, ABS, Polycarbonate.

The following vulcanised rubbers showed minimal change in properties at 70 °C: Natural rubber, EPDM, SBR, Butadiene-acrylonitrile, Butyl.

ADDITIONAL INFORMATION

Shelf Life: 36 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

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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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