

## EMPL Electro-Mechanical Plastics Lubricant

EMPL is a non-melting grease with good mechanical lubrication properties, good electrical characteristics, excellent plastics compatibility, and a wide operating temperature range. EMPL has been specifically designed for use as an assembly grease, where migration onto electrical contacts is possible. EMPL has been developed to remove the problem of stress cracking caused by the interaction of other lubricants with thermo-plastics under stress.

- Low contact resistance; suitable for use on most types of wiping, sliding and non-arcing contacts
- Excellent plastics compatibility; suitable with Noryl/PC/Polystyrene, testing is always advised
- Wide operating temperature range; ideal for use as an assembly grease in a wide range of applications
- Excellent anti-wear characteristics; eliminates issues with stress cracking

### Approvals

RoHS Compliant (2015/863/EU):

Yes

### Typical Properties

Colour	Light Brown Grease
Temperature Range (°C)	-20 to +200
Thermal Conductivity (cal/cm/sec/°C)	$4.0 \times 10^{-4}$
Water Content (%)	<0.2
Drop Point (ASTM D566)	>250°C
Cone Penetration Worked (ASTM D217, 60 strokes @ 25°C)	270-300
Cone Penetration Un-Worked (ASTM D 217 @ 25°C)	260-290
Evaporation Weight Loss (Method 0 ASTM D972)	
500 hours @ 50°C	0.55%
500 hours @ 100°C	1.57%
500 hours @ 150°C	3.65%
24 hours @ 200°C	2.45%

### Description

### Packaging

### Order Code

### Shelf Life

Electro-Mechanical Plastics Lubricant	10ml Syringe	EMPL10S	48 Months
	1kg	EMPL01K	72 Months
	12.5kg	EMPL12.5K	72 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**

Before final treatment with Electrolube lubricants, contact surfaces should be clean and dry. For general removal of dirt, Electrolube ULS is recommended. Hardened dirt and tarnish, especially on larger contacts, should be removed by rubbing with an abrasive material, which can be impregnated with the lubricant to be used.

After cleaning non-wiping contacts, loosened tarnish should be removed before a final application of lubricant is made. Electrolube Contact Cleaning Strips (CCS) are recommended for this purpose. With wiping contacts, loosened tarnish will be pushed aside. This can be removed if desired, but is usually not necessary, due to the excellent lubricating and protective properties of the contact lubricant.

EMPL can be applied by one of the following methods (although this list is not exhaustive):

- Manually** by way of a syringe
- Semi-automated** using syringe dispensing equipment
- Fully automated** by way of a follower/pusher plate with dispensing system.

## **Typical Product Applications**

EMPL has been specifically designed for use as an assembly grease, where migration onto electrical contacts is possible. EMPL has been developed to remove the problem of stress cracking caused by the interaction of other lubricants with thermo-plastics under stress.

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