CG70
Contact Treatment Grease

CG70 contact lubricant has been developed to offer enhanced electrical and mechanical properties, whilst being suitable for use with modern (and often very sensitive) plastics and under the more arduous conditions that are required by the leaders in today's automotive industry. In particular, CG70 provides exceptional performance at low temperatures (down to -55°C).

- Exceptional performance at low temperatures; can be used down to -55°C
- Good plastics compatibility; suitable with some sensitive plastics, testing is always advised
- Produces low and constant mV drop and contact resistance; ensures reliability of the contact
- Enhances quality of switch; provides smooth operation and extends switch lifetime

Approvals	**RoHS Compliant (2015/863/EU):**	**Yes**

Typical Properties

Colour	Cream
Density (g/ml)	0.85
Temperature Range (°C)	-55 to +130
Evaporation Weight Loss (% 7 days @ 100°C)	0.19
Evaporation Weight Loss (% 7 days @ 125°C)	2.20
Copper Strip Corrosion (IP154 / ISO 2160)	≤1b
Drop Point (IP32 / ISO 2176 (°C))	200
Cone Penetration Worked (ASTM D217, 60 strokes @ 20°C)	320
Cone Penetration Un-worked (ASTM D 217 @ 20°C)	310
Cone Penetration Un-worked (ASTM D 217 @ -40°C)	240
Consistency (NLGI)	1
Fliessdruck (Flow Pressure) (DIN 51805, mbar @ -40°C)	200
Oil Bleed / Separation (IP121)	5%
Silver Corrosion (DIN 51759, 3hrs @100°C)	No change
Plastic Compatibility - ABS	Test
Plastic Compatibility - PC	Test
Thickener	Lithium Complex Soap
Neutralisation Value (mgKOH/g)	0.3
UV Trace	Yes

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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

Base Oil Properties

Base Oil Type	PAO / Complex Ester
Pour Point (ASTM D 97 (°C))	-70
Flash Point (COC ASTM D 92 (°C))	220

Mechanical Properties

Low Temperature Torque -40°C Static (IP 186 (mNm))	25
Low Temperature Torque -40°C Dynamic (IP 186 (mNm))	18
Low Temperature Torque -50°C Static (IP 186 (mNm))	46
Low Temperature Torque -50°C Dynamic (IP 186 (mNm))	37
4 Ball Wear (mm)	2.462
Weld Load (kgf)	126

Packing	Order Code	Shelf Life	Container Dimension
35 ml Syringe	CG7035SL	48 months	
310ml Cartridge	ECG70310ML	48 months	49.6mm (Diameter) x 260mm +15mm (Height + Nozzle)
20kg Bulk	ECG7020K	72 months	305mm (Diameter) x 406mm (Height)

Directions for Use

Before final treatment with Electrolube lubricants, contact surfaces should be clean and dry. For general removal of dirt, Electrolube Ultrasolve 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.

CG70 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.

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Typical Product Applications

The unique properties of CG70 have been produced by using a blend of low viscosity base oils, thickened with a complex soap. The use of an inorganic thickener, rather than clay or silica, has the benefit of producing a smoother grease with superior mechanical properties. These include decreasing wear and producing a high quality switch "feel". In addition if the switch is exposed to extremely high temperatures over long periods, forcing the base oil to evaporate, the thickener will not remain as an insulative, abrasive layer on the contact surfaces.

The main applications for CG70 include column switches, rocker switches, push-push switches in the automotive and high quality domestic switch industries. The exceptionally low wear characteristics also make this lubricant ideal for high quality audio applications, providing a very smooth, high quality feel operation.

CG70 has been specifically designed as a lubricant to ensure the low and stable electrical contact resistance across mating metal surfaces, by reducing harmful arcing and increasing the effective surface area of the switch. However, due the outstanding nature of its mechanical and plastic compatibility properties, it may also be used as a purely mechanical lubricant for plastic / plastic and plastic / metal interfaces.

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