



Technical Data Sheet

CG53A Contact Treatment Grease

Product Description

The CG series of Contact Lubricants is an extension of the extremely popular 2X range. The main advantages of these products are reduced contact resistance (even on extremely heavy usage), improved plastics compatibility and improved mechanical lubrication.

In addition to providing low and stable contact resistance and improved mechanical lubrication properties, CG53A offers superior long term protection to contacts in corrosive environments. It is also an ideal lubricant for high voltage contacts. The plastics compatibility of this grease is very good although, as with all lubricants, it is always advisable to test prior to full scale production.

The unique properties of CG53A have been produced by using a blend of low viscosity base oils, containing anti-corrosion, anti-oxidant and metal protection additives, thickened with a complex soap. The use of a complex soap thickener, rather than clay or silica, has the benefit of producing 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.

Features

- Produces low and constant mV drop (and contact resistance)
- Extends switch lifetime
- Wide operating temperature range
- Optimal mechanical resistance
- Reduces electrical background noise
- Provides smooth, high quality switch "feel"
- Provides superior protection in harsh environments

Approvals **RoHS Compliant (2002/95/EC):** **Yes**

Typical Properties:

Colour	Cream
Density (g/ml)	0.995
Temperature Range (°C)	-35 to +130
Vapour Pressure	0.001 Torr @ 20°C
Evaporation Weight Loss (% 7 days @ 100°C)	0.42
Evaporation Weight Loss (% 7 days @ 125°C)	1.25
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)	300
Cone Penetration Un-Worked (ASTM D 217 @ -40°C)	230

Consistency (NLGI)	1
Fliess Druck (Flow Pressure) (DIN 51805, mbar @ -40°C)	320
Oil Bleed / Separation (IP121)	5%
Silver Corrosion (DIN 51759, 3 hrs @100°C)	No change
Plastic Compatibility - ABS	Test
Plastic Compatibility - PC	Test
Thickener	Lithium Complex Soap
UV Trace	No

Base Oil Properties:

Base Oil Type	Poly Alkylene Glycol
Base Oil Viscosity @ 40°C (Kinematic Viscosity (cSt))	225
Base Oil Viscosity @ 100°C (Kinematic Viscosity (cSt))	37
Base Oil Viscosity Index (ASTM D 2270)	214
Pour Point (ASTM D 97 (°C))	-37
Flash Point (COC ASTM D 92 (°C))	214

<u>Packing</u>	<u>Order Code</u>	<u>Shelf Life</u>	<u>Container Dimension</u>
35ml Syringe	CG53A35SL	48 months	
1 Kg Bulk	CG53A01K	72 months	
5 Kg Bulk	CG53A05K	72 months	
12.5 Kg Bulk	CG53A12.5K	72 months	254mm (inside diameter) x 330mm (height)
25 Kg Bulk	CG53A25K	72 months	305mm (inside diameter) x 406mm (height)

The 12.5 and 25 kg grease drums have parallel sides for use with "follower plate" dispensing equipment for automated manufacturing lines.

NATO stock no: 6850-99-186-8879

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.

CG53A 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

The exceptionally low wear characteristics make CG53A ideal for high quality audio and automotive applications, providing a very smooth, high quality feel operation. The use of this lubricant on switches and connectors ensures a very low and stable contact resistance over the long lifetimes required by such industries.

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