SGB
Contact Treatment Grease

SGB (2X Grease) was developed as an extension of the No 2 Range (SGA and SOA) with increased plastics compatibility. This product development was necessary due to the use of thermoplastics in the electronics and automotive industries. SGB will significantly increase contact performance and lifetime. Separate data sheets are available for the diluted oil (EML), oil (SOB) and the low penetration grease (SGBH).

- Improves contact performance by increasing effective contact area
- Enhanced plastics compatibility; suitable for a range of plastics and rubbers (testing advised)
- Highly stable synthetic material, fully inhibited against oxidisation and copper corrosion
- Excellent penetration and cooling properties; prevents arcing, thus reduces contact wear

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

Typical Properties

Colour	Beige
Density (g/ml)	1.11
Temperature Range (°C)	-35 to +130
Vapour Pressure	0.001 Torr @ 20°C
Evaporation Weight Loss (% 7 days @ 100°C)	3.73
Evaporation Weight Loss (% 7 days @ 125°C)	3.90
Copper Strip Corrosion (IP154 / ISO 2160)	≤1b
Drop Point (IP32 / ISO 2176 (°C))	250
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)	180
Consistency (NLGI)	1
Fliessdruck (Flow Pressure) (DIN 51805, mbar @ -40°C)	720
Oil Bleed / Separation (IP121)	6%
Silver Corrosion (DIN 51759, 3 hrs @100°C)	No Change
Plastic Compatibility - ABS	Test
Plastic Compatibility - PC	Test
Thickener	Clay
Water Content (%)	0.6
UV Trace	No

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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.

Ashby Park, Coalfield Way,
Ashby de la Zouch,
Leicestershire LE65 1JR
T +44 (0)1530 419 600
F +44 (0)1530 416 640
BS EN ISO 9001:2008
Certificate No. FM 32082

Electrical Properties

Breakdown Voltage (BS148 (kV))	4.05

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

Mechanical Properties

4 Ball Wear	2.148
Weld Load	126

Packing	Order Code	Shelf Life	Container Dimension	NATO Stock No.
1Kg Bulk	ESGB01K	72 Months	114mm (Diameter) x 120mm (Height)	6850-99-075-6602
5Kg Bulk	ESGB05K	72 Months	178mm (Diameter) x 235mm (Height)	
12.5Kg Bulk	ESGB12.5K	72 Months	254mm (Diameter) x 330mm (Height)	
25Kg Bulk	ESGB25K	72 Months	305mm (Diameter) x 406mm (Height)	
200ml Aerosol	ESGB200D	36 Months		6850-99-224-1974
20ml Syringe	ESGB20S	48 Months		6850-99-220-4560
35ml Syringe	ESGB35SL	48 Months		

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

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.

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

Manually by way of a syringe or aerosol (SGB200D)
Semi-automated using syringe dispensing
Fully automated by way of a follower/pusher plate with dispensing system

In production processes, contact lubricant should be applied to the contact components as soon as possible after manufacture or plating to protect against handling contamination and tarnishing.

Typical Product Applications

SGB can be used on all types of electrical contacts and with most types of thermoplastics. A small area should be tested first to ensure compatibility.

SGB is a non-melting product that will not migrate from vertical surfaces and will provide greater environmental protection than the oil. Thus the grease is preferable in industrial applications where heavy arcing is common. For example: battery terminals, knife switches, rheostats etc. The grease is also preferable in switches with a very long lifetime and high cycle rate, for example, the automotive switching industry.

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