Product information

POLYLUB® GLY 151, 501, 801

Special synthetic lubricating greases for a wide application range

Benefits for your application

- **For many applications in connection with various plastics and elastomers**
- **Approved by many renowned manufacturers and suppliers in the automotive industry, e.g. DBL 6827.60, VW TL 52147, Opel B 0401138, Ford WSD-M1 C244-A, Brose Fettgruppe 11 and many more**
- **The integrated UV indicator allows a reliable lubricant detection (wave length 366 nm) even with minimum quantity lubrication**
- **Contributes to mechanical damping and noise reduction of switches and contacts.**

Description

The product series POLYLUB GLY 151, 501, 801 is based on a synthetic hydrocarbon oil, mineral oil and special lithium soap. It comprises three lubricating greases reducing friction and wear in plain bearings, slideways and small gears made of plastic.

The lubrication of plastics is special in a number of ways . As the behavior of metals and plastics differs in many aspects, the lubricants' properties have to be adjusted to the plastic. Compared to many metals, plastics are relatively soft. Solid lubricants, which may achieve a positive effect on many metal friction points, can have a negative or no effect at all on plastic lube points. With the formulation of POLYLUB GLY 151, 501, 801, Klüber Lubrication offers products which are free of solid lubricants, and offer good adhesion.

Compatibility with plastics

POLYLUB GLY 151, 501 and 801 are neutral towards many technical plastics and rubber-elastic materials, such as FPM, NBR and ACM. Practical experience with POM, PEI, PPO and PA 66 has also shown that high temperatures do not affect the lubricants' compatibility with plastics. Owing to the many different elastomer and plastic compositions, however, their compatibility has to be checked prior to series application.

Application

Vehicles
Gearshift linkages, moving parts of the heating and ventilation system, shock absorber seals, tie rod elements, seat mechanisms, sun roof guides, pedals.

Plain bearings
Many types of plain bearing designs. POLYLUB® GLY 151, 501, 801 prevent stick-slip to a large extent, particularly in applications where normally a hydrodynamic lubricating film cannot form.

Gears
Small electric gears with plastic-metal friction components, manual gears operating at very low sliding speeds.

Pneumatic installations
Pneumatic valves and cylinders with and without piston rod (for these applications, the upper service temperature* should not exceed 130°C).

Seals
Lubricating and sealing grease for various types of seals. For resistance to common elastomers please refer to chart 1. The POLYLUB GLY 151, 501 and 801 lubricants are also suitable for many other plastic components subject to wear caused by relative movement against metal or plastic surfaces. Owing to good damping properties, especially of POLYLUB GLY 801 and 501, noise is considerably reduced.

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Application notes

POLYLUB GLY 151, 501 and 801 are applied by brush, spatula or automatic metering systems.

Minimum shelf life

The minimum shelf life is approx. 36 months if the product is stored in its unopened original container in a dry, frost-free place.

Pack sizes

1 kg can
25 kg bucket

for POLYLUB GLY 801 also:
400 g cartridge
180 kg steel drum

Material Safety Data Sheets

Material safety data sheets can be downloaded or requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.

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Product data	POLYLUB® GLY 151	POLYLUB® GLY 501	POLYLUB® GLY 801
Composition	synthetic hydrocarbon oil, mineral oil, special lithium soap		
Color	beige	beige	beige
Servive temperature range, [°C]*)	-50 to 150	-40 to 150	-40 to 130
Drop point, DIN ISO 2176, [°C]	≥ 250	≥ 250	≥ 250
Worked penetration, DIN ISO 2137 at 25 °C; [0.1 mm]	310 - 340	310 - 340	310 - 340
Consistency, DIN 51818, NLGI grade	1	1	1
Density at 20 °C, [g/cm³], approx.	0.85	0.85	0.88
Base oil viscosity, DIN 51562, part 1 at 40 °C, [mm²/s], approx. at 100 °C, [mm²/s], approx.	 150 18.5	 500 40	 730 60
Apparent viscosity, Klüber viscosity class **)	EL/L	L/M	M
Corrosion protection behavior (Emcor test), DIN 51802, 1 week, distilled water, corrosion rating	≤1	≤1	≤1
Oxidation stability, DIN 51808, 99 °C, 100 h, pressure loss [bar]	≤ 0.30	≤ 0.30	≤ 0.30
Oil separation, FTMS 791 C 321.3, after 30 h at 100 °C, [%]	≤ 6.0	≤ 4.0	≤ 4.0
Water resistance, DIN 51807 pt.1, 3 h, 90 °C, rating	≤1-90	≤1-90	≤ 1-90

* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

** Klüber viscosity grades: L = light lubricating grease; M = medium lubricating grease

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Behavior towards elastomers
Resistance tests of POLYLUB® GLY 151, 501 and 801

The following elastomers are products from Freudenberg and have been tested statistically in acc. with DIN 53504/53505*.

Materials	72 NBR 902	75 ACM 370	75 FPM 595	81 VMQ 541
Modifications static exposure to POLYLUB® GLY 151	168 h / 100 °C	168 h / 150 °C	168 h / 150 °C	168 h / 140 °C
Hardness Shore A	+ 1	- 5	- 2	- 10
Volume %	+ 1	+ 3	+ 1	+ 8
Tensile strength %	- 7	- 10	+ 2	- 50
Elongation at tear %	- 26	+ 1	+ 2	- 27
Modifications static exposure to POLYLUB® GLY 501				
Hardness Shore A	+ 1	- 4	- 1	- 9
Volume %	+ 1	+ 2	+ 1	+ 6
Tensile strength %	- 2	- 10	+ 7	- 44
Elongation at tear %	- 24	+ 5	+ 6	- 21
Modifications static exposure to POLYLUB®GLY 801				
Hardness Shore A	+ 1	- 4	- 1	- 7
Volume %	+ 1	+ 2	+ 1	+ 5
Tensile strength %	- 1	- 10	+ 8	- 42
Elongation at tear %	- 23	+ 6	+ 7	- 20
Common application limits for elastomer types mentioned	static		dynamic	
Hardness Shore A	approx. ± 10		approx. ± 5	
Volume %	approx. - 5 to + 10		approx. - 2 to + 5	
Tensile strength %	approx. - 50		approx. - 50	
Elongation at tear %	approx. - 50		approx. - 50	

* The values are based on a one-time measurement and do not constitute an assurance of properties.
** The swell test temperature does not allow conclusions to be drawn about the service temperature of Polylub GLY 801.

Lubrication is our world

With more than 2000 products available around the world, you can be sure that Klüber has the right product for your application. Please contact Klüber Lubrication specialists worldwide to assist you in all matters regarding lubrication.

www.klueber.com

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