

# POLYLUB GLY 151, 501, 801

Special synthetic lubricating greases for a wide application range



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## 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, 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.**

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## 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 behaviour 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.

## 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. 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.

## Application notes

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

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

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Pack sizes	POLYLUB GLY 151	POLYLUB GLY 151 Spray	POLYLUB GLY 501	POLYLUB GLY 801
Can 1 kg	+	-	+	+
Cartridge 400 g	-	-	-	+
Bucket 25 kg	+	-	+	+
Drum 170 kg	+	-	-	-
Drum 180 kg	-	-	+	+
Aerosol can 400 ml	-	+	-	-



Product data	POLYLUB GLY 151	POLYLUB GLY 151 Spray	POLYLUB GLY 501	POLYLUB GLY 801
Article number	020235	081297	020285	020199
Chemical composition, type of oil	mineral oil	mineral oil	mineral oil	mineral oil
Chemical composition, type of oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil
Chemical composition, thickener	special lithium soap	special lithium soap	special lithium soap	special lithium soap
Chemical composition				UV additive
Lower service temperature	-50 °C / -58 °F	approx. -50 °C / -58 °F	-40 °C / -40 °F	-40 °C / -40 °F
Upper service temperature	150 °C / 302 °F	150 °C / 302 °F	150 °C / 302 °F	130 °C / 266 °F
Colour space	beige	beige	beige	beige
Density at 20 °C	approx. 0.85 g/cm <sup>3</sup>	approx. 0.85 g/cm <sup>3</sup>	approx. 0.88 g/cm <sup>3</sup>	approx. 0.88 g/cm <sup>3</sup>
NLGI grade, DIN 51818	1		1	1
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	310 x 0.1 mm	310 x 0.1 mm	310 x 0.1 mm	310 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	340 x 0.1 mm	340 x 0.1 mm	340 x 0.1 mm	340 x 0.1 mm
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	1 800 mPas	1 800 mPas	3 000 mPas	4 000 mPas
Shear viscosity at 25°C, shear rate 300 s <sup>-1</sup> , equipment:rotational viscometer, upper limit value	3 000 mPas	3 000 mPas	5 000 mPas	8 000 mPas
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 150 mm <sup>2</sup> /s	approx. 150 mm <sup>2</sup> /s	approx. 500 mm <sup>2</sup> /s	approx. 730 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 18.5 mm <sup>2</sup> /s	approx. 18.5 mm <sup>2</sup> /s	approx. 40 mm <sup>2</sup> /s	approx. 60 mm <sup>2</sup> /s
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree	<= 1 corrosion degree	<= 1 corrosion degree	<= 1 corrosion degree
Oil separation, ASTM D 6184 [FTMS 791 C 321], after 30 h/100 °C	<= 6 % by weight	<= 6 % by weight	<= 4 % by weight	<= 4 % by weight
Drop point, DIN ISO 2176	>= 250 °C	>= 250 °C	>= 250 °C	>= 250 °C
Oxidation stability of lubricating greases, ASTM D942, 100 h/99 °C, pressure drop	<= 0.3 bar	<= 0.3 bar	<= 0.3 bar	<= 0.3 bar
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating	<= 1 - 90	1 - 90	<= 1 - 90	<= 1 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	24 months	36 months	36 months

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## Behaviour 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.

Note: The data provided are the results of one-time measurements and do therefore not constitute an assurance of properties. The temperature used for the swelling tests is not an indicator of the service temperature of POLYLUB GLY 801.

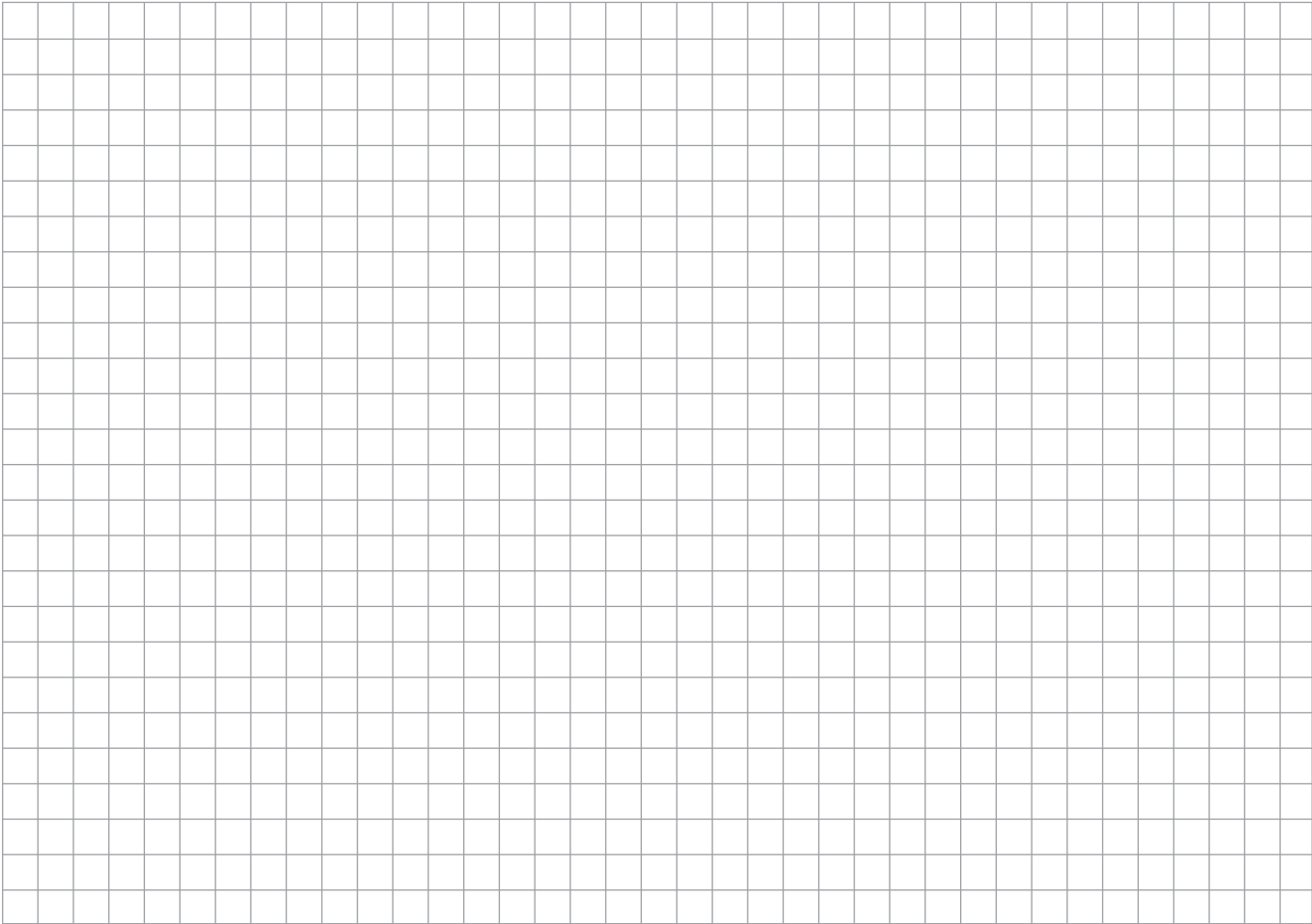
Materials	72 NBR 902	75 ACM 370	75 FPM 595	81 VMQ 541
<b>Modifications static exposure to POLYLUB GLY 151</b>	168 h / 100 °C	168 h / 150 °C	168 h / 150 °C	168 h / 140 °C
Hardness Shore A	+1	-5	-2	-10
Volume %	+1	+3	+1	+8
Tensile strength %	-7	-10	+2	-50
Elongation at tear %	-26	+1	+2	-27
<b>Modifications static exposure to Poly lub GLY 501</b>	168 h / 100 °C	168 h / 150 °C	168 h / 150 °C	168 h / 140 °C
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
<b>Modifications static exposure to Poly lub GLY 801</b>	168 h / 100 °C	168 h / 150 °C	168 h / 150 °C	168 h / 140 °C
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
<b>Common application limits for elastomer types mentioned</b>	static		dynamic	
Hardness Shore A:	approx. ± 10		approx. ± 5	approx. ± 5
Volume %:	approx. - 5 bis + 10		approx. - 2 bis + 5	
Tensile strength %:	approx. - 50		approx. - 50	
Elongation at tear %	approx. - 50		approx. - 50	





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## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 80 years.

**Klüber Lubrication München SE & Co. KG /  
Geisenhausenerstraße 7 / 81379 München / Germany /  
phone +49 89 7876-0 / fax +49 89 7876-333.**

The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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