

# POLYLUB GLY 151, 501, 801

Special synthetic lubricating greases for a wide application range



## Your benefits at a glance

- 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, 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.

## Your requirements - our solution

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.

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.

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Materials	72 NBR 902	75 ACM 370	75 FPM 595
<b>Modifications static exposure to POLYLUB GLY 151</b>	<b>168 h / 100 °C</b>	<b>168 h / 150 °C</b>	<b>168 h / 150 °C</b>
Hardness Shore A	+1	-5	-2
Volume %	+1	+3	+1
Tensile strength %	-7	-10	+2
Elongation at tear %	-26	+1	+2
<b>Modifications static exposure to Polyub GLY 501</b>	<b>168 h / 100 °C</b>	<b>168 h / 150 °C</b>	<b>168 h / 150 °C</b>
Hardness Shore A	+1	-4	-1
Volume %	+1	+2	+1
Tensile strength %	-2	-10	+7
Elongation at tear %	-24	+5	+6
<b>Modifications static exposure to Polyub GLY 801</b>	<b>168 h / 100 °C</b>	<b>168 h / 150 °C</b>	<b>168 h / 150 °C</b>
Hardness Shore A	+1	-4	-1
Volume %	+1	+2	+1
Tensile strength %	-1	-10	+8
Elongation at tear %	-23	+6	+7

Common application limits for elastomer types mentioned	static	dynamic
Hardness Shore A:	approx. ± 10	approx. ± 5
Volume %:	approx. - 5 bis + 10	approx. - 2 bis + 5
Tensile strength %:	approx. - 50	approx. - 50
Elongation at tear %	approx. - 50	approx. - 50

Pack sizes	POLYLUB GLY 151	POLYLUB GLY 501	POLYLUB GLY 801
Cartridge 370 g			+
Can 1 kg	+	+	+
Bucket 5 kg			+
Bucket 25 kg	+	+	+
Bucket 45 kg			+
Bucket 50 kg	+		+
Drum 170 kg	+		
Drum 180 kg		+	+

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Characteristics	POLYLUB GLY 151	POLYLUB GLY 501	POLYLUB GLY 801
Article number	020235	020285	020199
Composition	UV additive	UV additive	UV additive
Composition, thickener	lithium complex soap	lithium complex soap	lithium complex soap
Composition, type of oil	mineral oil , synthetic hydrocarbon oil	mineral oil , synthetic hydrocarbon oil	mineral oil , synthetic hydrocarbon oil
Colour space	beige	beige	beige
Service temperature, lower limit	-50 °C	-40 °C	-40 °C
Service temperature, upper limit	150 °C	150 °C	130 °C
Density, Klüber method: PN 024, 20°C	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 / ASTM D217, 25°C, lower limit	310 0.1 mm	310 0.1 mm	310 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	340 0.1 mm	340 0.1 mm	340 0.1 mm
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s <sup>-1</sup> , lower limit	1800 mPas	3000 mPas	4000 mPas
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s <sup>-1</sup> , upper limit	3000 mPas	5000 mPas	8000 mPas
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 18.5 mm <sup>2</sup> /s	approx. 40 mm <sup>2</sup> /s	approx. 60 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 150 mm <sup>2</sup> /s	approx. 500 mm <sup>2</sup> /s	approx. 730 mm <sup>2</sup> /s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree	≤ 1 corrosion degree	≤ 1 corrosion degree
Oil separation, ASTM D6184, 30 h, 100°C	≤ 6 % by weight	≤ 4 % by weight	≤ 4 % by weight
Dropping point, DIN ISO 2176 / IP 396	≥ 250 °C	≥ 250 °C	≥ 250 °C
Oxidation stability, ASTM D942, 100 h, 99°C, pressure drop	≤ 0.3 bar	≤ 0.3 bar	≤ 0.3 bar
Water resistance, DIN 51807-1, 3 h, 90°C	≤ 1 - 90 rating	≤ 1 - 90 rating	≤ 1 - 90 rating
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 months	36 months

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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 95 years.

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

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