

Klübertemp GR M07 N, M30 N, M60 N

Long-term greases for a wide temperature range



Your benefits at a glance

- Versatile use for components under particularly demanding conditions
- over a wide service temperature range
- in contact with aggressive media
- where sensitive plastic materials are used

Your requirements - our solution

Klübertemp GR M-N greases are white long-term greases based on perfluorinated polyether (PFPE) oils and polytetrafluoroethylene (PTFE) thickener. The extremely high viscosity index, i.e. the very flat viscosity curve of the base oils, allows excellent sliding friction properties across a wide service temperature range.

Klübertemp GR M-N greases show a neutral behaviour towards most plastics and elastomers and can therefore be used for a variety of component materials.

These greases were tested for use with selected nonferrous metals.

Application

Klübertemp GR M07N, Klübertemp GR M30N and Klübertemp GR M60N greases are preferably used for the lubrication of electromechanical actuators and small gears where they show low breakaway torques at low temperatures, exceptionally low friction values as well as a reduced tendency to stick-slip.

General behaviour towards materials

Lubricants based on perfluorinated polyether oils and polytetrafluoroethylene are generally regarded as neutral towards most elastomers and plastics (possible exception: highly fluorinated rubber). Nevertheless, compatibility with the materials should be tested, especially prior to series application.

Application notes

For optimum lubrication results, we recommend cleaning the friction points with white spirit 180/210 followed by Klüberalfa XZ 3-1. Then blow the surfaces with clean, dry air or hot air to remove solvent residues. For initial lubrication, the friction points must be clean and bright, i.e. free from oil, grease, perspiration and contamination. Klübertemp GR M greases may be applied directly or by means of brush, spatula or lubricant dispenser.

The technical sales departments at Klüber Lubrication may be contacted at any time for advice to ensure optimum service life results.

Material safety data sheets

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

Pack sizes	Klübertemp GR M07 N	Klübertemp GR M30 N	Klübertemp GR M60 N
Tube 100 g	+	+	+
Can 1 kg	+	+	+
Bucket 10 kg	+	+	+



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Product data	Klübertemp GR M07 N	Klübertemp GR M30 N	Klübertemp GR M60 N
Article number	090212	090213	090214
Chemical composition, type of oil	PFPE	PFPE	PFPE
Chemical composition, solid lubricant	PTFE	PTFE	PTFE
Lower service temperature	-65 °C / -85 °F	-60 °C / -76 °F	-50 °C / -58 °F
Upper service temperature	180 °C / 356 °F	200 °C / 392 °F	230 °C / 446 °F
Colour space	white	white	white
Texture	homogeneous	homogeneous	homogeneous
Density at 20 °C	approx. 1.91 g/cm ³	approx. 1.94 g/cm ³	approx. 1.90 g/cm ³
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	310 x 0.1 mm	265 x 0.1 mm	265 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	340 x 0.1 mm	295 x 0.1 mm	295 x 0.1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 40 mm ² /s	approx. 160 mm ² /s	approx. 310 mm ² /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 11 mm ² /s	approx. 45 mm ² /s	approx. 85 mm ² /s
NLGI grade, DIN 51818	1	2	2
Copper corrosion, DIN 51811, (lubricating grease), 24h/100°C	1 - 100 corrosion degree	1 - 100 corrosion degree	1 - 100 corrosion degree
Oil separation, based on ASTM D 6184 [FTMS 791 C 321], after 30 h/120 °C	<= 11 % by weight	<= 11 % by weight	
Oil separation, based on ASTM D 6184 [FTMS 791 C 321], after 30 h/200 °C			<= 10 % by weight
Evaporation loss, ASTM D 2595 22h/120°C	<= 3 % by weight		
Evaporation loss, ASTM D 2595 22h/204°C		<= 2 % by weight	<= 2 % by weight
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	60 months	60 months

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.

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