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 …N 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.

Klübertemp GR M …N greases have been tested and approved for contact-free minimum-quantity greasing by electro-pneumatic jet valves.

For more details on MOSH/MOAH and their assessment in H1 lubricants, please visit our website or contact your Klüber representative.

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
Can 1 kg	+	+	+
Bucket 10 kg	+	+	+
Bucket 20 kg		+	

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Characteristics	Klübertemp GR M07 N	Klübertemp GR M30 N	Klübertemp GR M60 N
Article number	090212	090213	090214
Composition, solid lubricant	PTFE	PTFE	PTFE
Composition, type of oil	PFPE	PFPE	PFPE
Colour space	white	white	white
Texture	homogeneous	homogeneous	homogeneous
Service temperature, lower limit	-65 °C	-60 °C	-50 °C
Service temperature, upper limit	180 °C	200 °C	230 °C
Density, Klüber method: PN 024, 20°C	approx. 1.91 g/cm³	approx. 1.93 g/cm³	approx. 1.9 g/cm³
NLGI grade, DIN 51818	1	2	2
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	310 0.1 mm	265 0.1 mm	265 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	340 0.1 mm	295 0.1 mm	295 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 11 mm²/s	approx. 45 mm²/s	approx. 85 mm²/s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 40 mm²/s	approx. 160 mm²/s	approx. 310 mm²/s
Copper corrosion, DIN 51811, 24 h, 100°C	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree
Oil separation, ASTM D6184, based on standard, 30 h, 120°C	≤ 11 % by weight	-	-
Oil separation, ASTM D6184, based on standard, 30 h, 200°C	-	≤ 11 % by weight	≤ 10 % by weight
Evaporation loss, ASTM D2595, 22 h, 120°C	≤ 3 % by weight	-	-
Evaporation loss, ASTM D2595, 22 h, 204°C	-	≤ 2 % by weight	≤ 2 % by weight
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	No component of recipe	No component of recipe	No component of recipe
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	No component of recipe	No component of recipe	No component of recipe
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

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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.

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