

Klüberalfa GR Y VAC 1, VAC 2, VAC 3

Special greases for vacuum applications



Your benefits at a glance

- Low evaporation even under ultra-high vacuum
- High thermal stability
- Good resistance to aggressive media
- Neutral towards plastic materials

Your requirements - our solution

Klüberalfa GR Y VAC greases are white, homogeneous long-term greases based on perfluorinated polyether (PFPE) oils and polytetrafluoroethylene (PTFE) thickener. Besides their good resistance to high temperature and aggressive media, Klüberalfa GR Y VAC greases show low evaporation under vacuum conditions.

Klüberalfa GR Y VAC greases are made in three different NLGI classes, allowing component-specific selection for lifetime lubrication.

Application

Klüberalfa GR Y VAC are preferred greases for applications under vacuum, e.g. in components of the electro-mechanical industry.

Behaviour towards elastomers and plastics

Lubricants based on perfluorinated polyether oils and polytetrafluoroethylene are generally regarded as neutral towards most elastomers and plastics (exception: perfluorinated rubber).

Nevertheless we recommend testing compatibility with the material to be used, 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 compressed 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 and perspiration. Klüberalfa GR Y VAC greases are 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	Klüberalfa GR Y VAC 1	Klüberalfa GR Y VAC 2	Klüberalfa GR Y VAC 3
Can 1 kg	+	+	+
Bucket 20 kg		+	+

Characteristics	Klüberalfa GR Y VAC 1	Klüberalfa GR Y VAC 2	Klüberalfa GR Y VAC 3
Article number	090188	090189	090190
Composition, solid lubricant	PTFE	PTFE	PTFE
Composition, type of oil	PFPE	PFPE	PFPE

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Characteristics	Klüberalfa GR Y VAC 1	Klüberalfa GR Y VAC 2	Klüberalfa GR Y VAC 3
Colour space	white	white	white
Texture	homogeneous	homogeneous	homogeneous
Service temperature, lower limit	-20 °C	-20 °C	-20 °C
Service temperature, upper limit	250 °C	250 °C	250 °C
Density, Klüber method: PN 024, 20°C	approx. 1.94 g/cm ³	approx. 1.98 g/cm ³	approx. 1.99 g/cm ³
Vapour pressure, 100°C	≤ 6.71x 10 ⁻⁸ hPa	6.71 x 10 ⁻⁸ hPa	≤ 6.71 x 10 ⁻⁸ hPa
NLGI grade, DIN 51818	1	2	3
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	310 0.1 mm	265 0.1 mm	220 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	340 0.1 mm	295 0.1 mm	250 0.1 mm
Oil separation, ASTM D6184, based on standard, 30 h, 200°C	≤ 14 % by weight	≤ 12 % by weight	≤ 10 % by weight
Evaporation loss, ASTM D2595, 22 h, 204°C	≤ 1 % by weight	≤ 1 % by weight	≤ 1 % 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 90 years.

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