STABUTHERM GH 461, 462

High-temperature lubricating greases

Your benefits at a glance

- Reduction of lubricant costs due to
  - lower consumption
  - reduced waste water disposal costs due to excellent water resistance
- Longer component life and trouble-free operation due to
  - good wear protection, good load- carrying capacity even at high temperatures
  - excellent corrosion protection
- Proven pumpability and metering in central lubrication systems

Your requirements - our solution

STABUTHERM GH 461 and STABUTHERM GH 462 are high-temperature lubricating greases based on mineral oil and polyurea. They have a wide service temperature range and can be applied in rolling bearings up to 180°C. If the lubricant is used in central lubrication systems, operating temperatures up to 200°C are possible. STABUTHERM GH 461 and STABUTHERM GH 462 feature highly effective anti-wear properties. The greases are very adhesive and resistant to water both under static and dynamic load. STABUTHERM GH 461 and STABUTHERM GH 462 are resistant to oxidation and provide reliable protection against corrosion.

Application

STABUTHERM GH 461 and STABUTHERM GH 462 are particularly suitable for applications in smelting works and rolling mills, especially for high-temperature lubrication points supplied through a central lubrication system, e.g.

- drive rollers in continuous casting installations (slabs and billets)
- conveyor rollers in continuous furnaces

Lubricants for such applications must meet extremely high requirements regarding operating temperature, scaling, water and ensuing corrosion.

STABUTHERM GH 461 and STABUTHERM GH 462 are also suitable for other high-temperature applications, such as:

- annealing furnaces, drying stoves
- plain bearings in foundry cranes
- hot rolls in cardboard manufacturing plants
- road tarmacking machines
- shut-off gates in bulk material installations
- cooling beds, conveyor systems
- rotary kilns
- machines and installations in the automotive, beverage, glass and ceramics industries

Application notes

STABUTHERM GH 461 and STABUTHERM GH 462 can be pumped through all common types of lubrication systems.

Pipe friction values were determined in order to assess the pumpability in central lubrication systems.

The results obtained at different temperatures are illustrated in diagrams 1 and 2 on pages 3 and 4.

Diagram 1 shows the resistance to pumping per meter of pipe with a diameter of 7 mm; diagram 2 shows the values of a pipe with a diameter of 16 mm.

The pipe friction values were measured with a Shell DELIMON rheometer system.

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.

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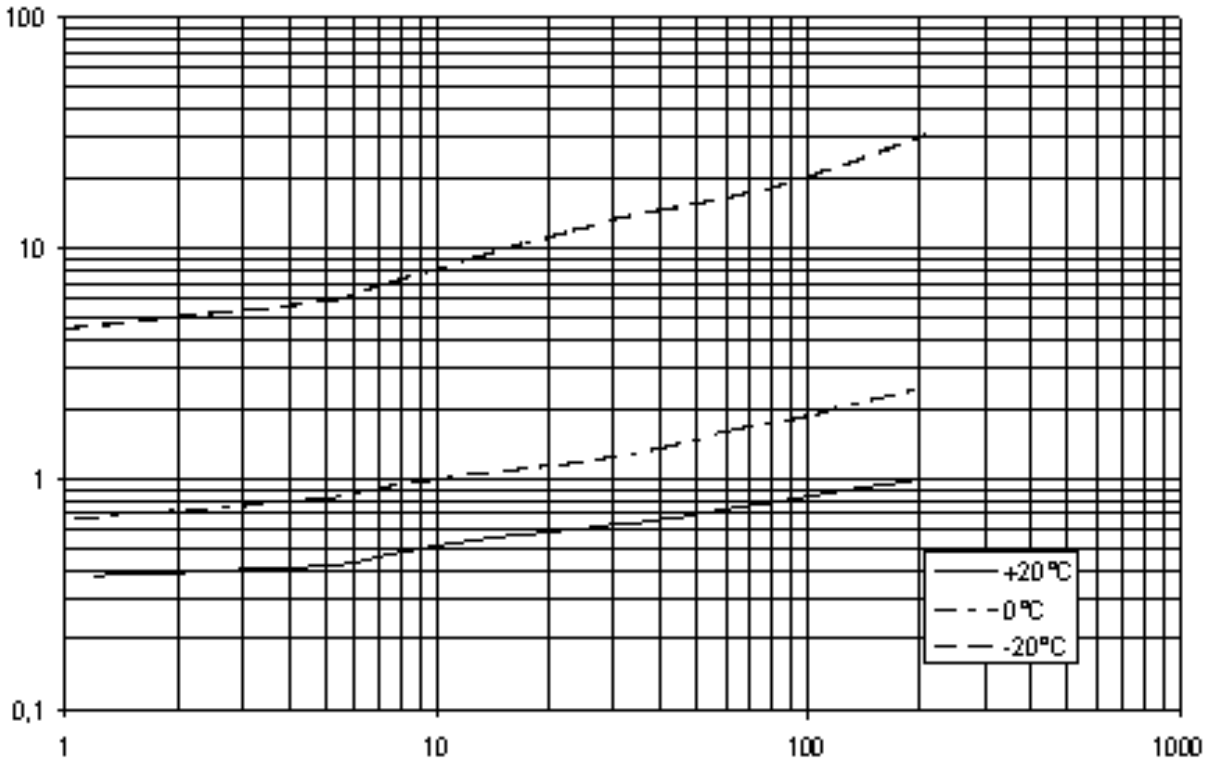

STABUTHERM GH 461 Temperatur	Rohrdurchmesser 16mm Durchflussmenge		
	1 g/min	10 g/min	100 g/min
-20 °C	4,5 bar	8 bar	20 bar
0 °C	0,65 bar	1 bar	1,9 bar
+20 °C	0,38 bar	0,5 bar	0,85 bar

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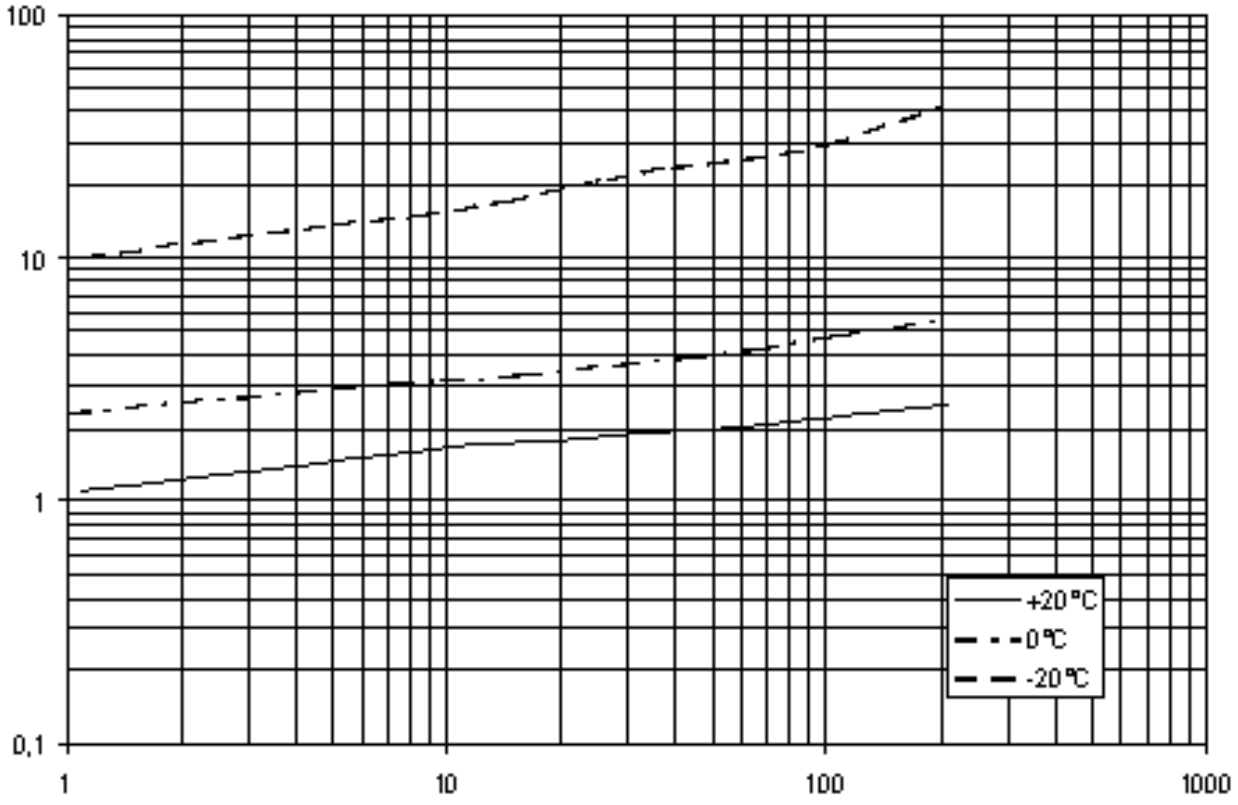
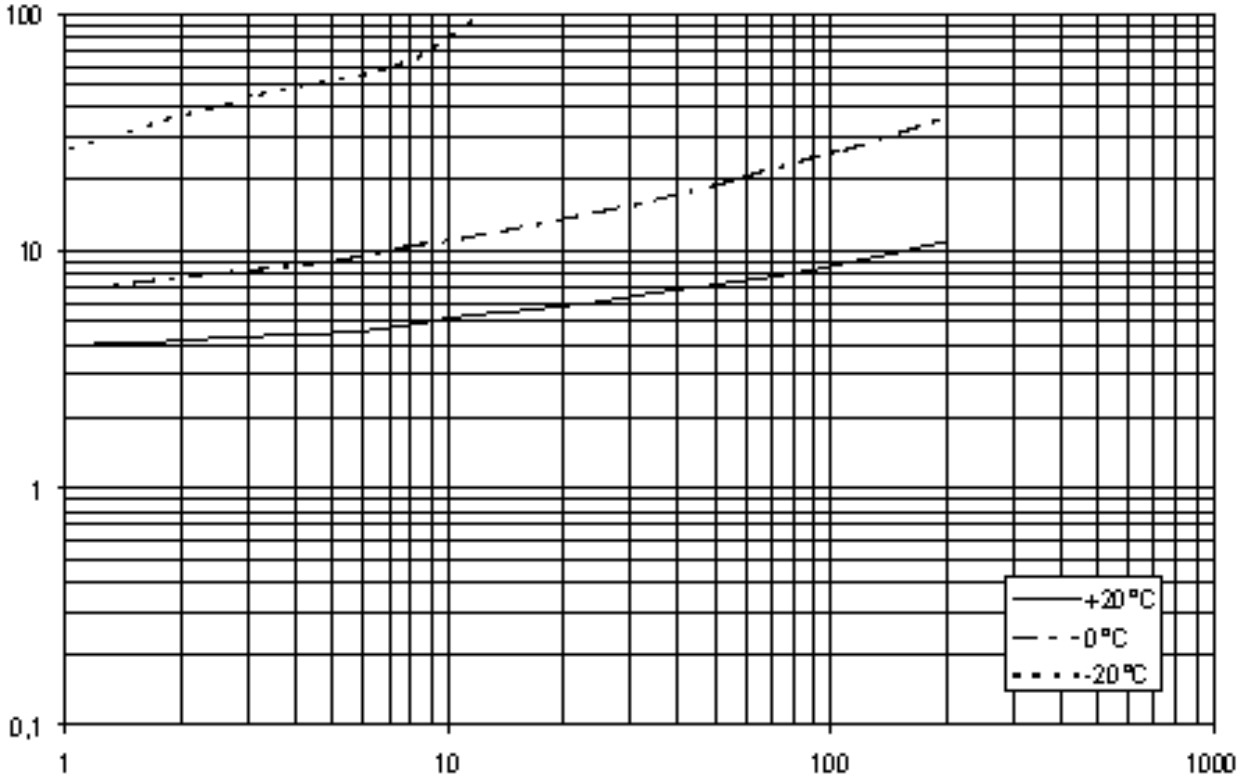


STABUTHERM GH 462 Temperatur	Rohrdurchmesser 16mm Durchflussmenge		
	1 g/min	10 g/min	100 g/min
-20 °C	10 bar	17 bar	29 bar
0 °C	2,3 bar	3,2 bar	4,8 bar
+20 °C	1,2 bar	1,7 bar	2,2 bar

STABUTHERM GH 461, 462

High-temperature lubricating greases

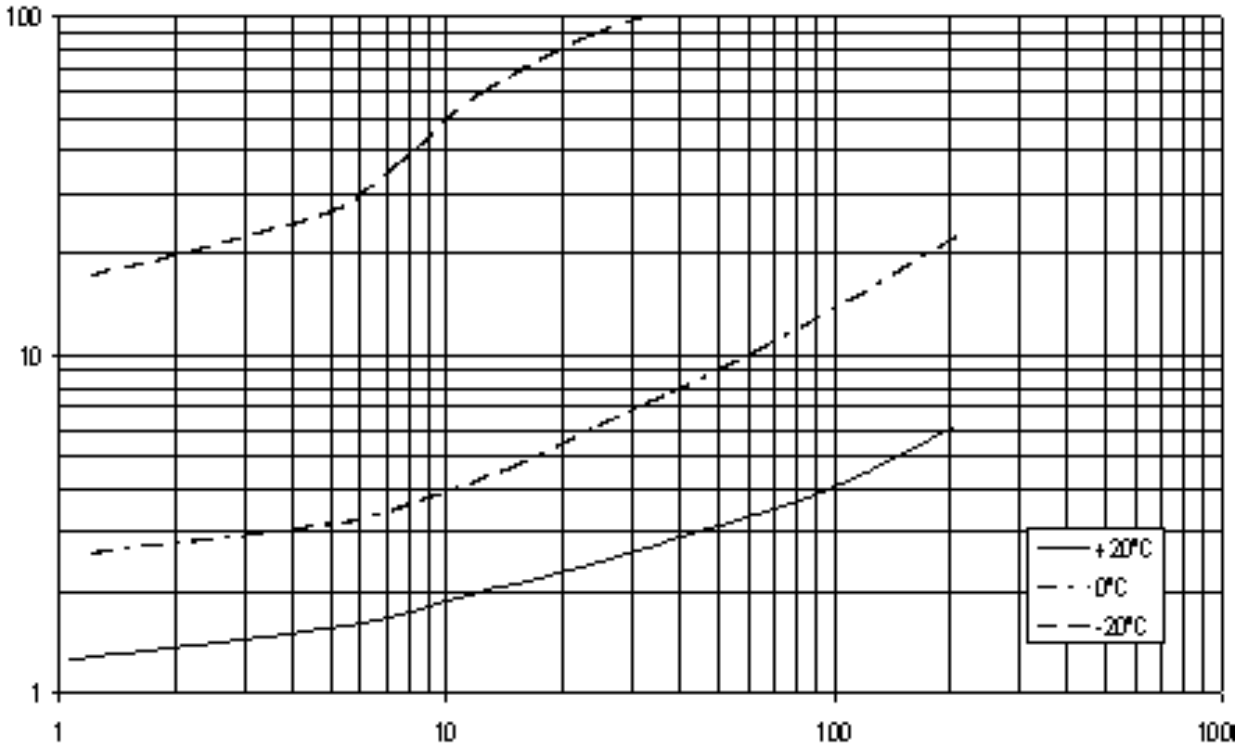


STABUTHERM GH 462 Temperatur	Rohrdurchmesser 7mm Durchflussmenge		
	1 g/min	10 g/min	100 g/min
-20 °C	28 bar	78 bar	> 100 bar
0 °C	7 bar	12 bar	26 bar
+20 °C	4 bar	5,2 bar	8,8 bar

KLÜBER LUBRICATION

STABUTHERM GH 461, 462

High-temperature lubricating greases



STABUTHERM GH 461 Temperatur	Rohrdurchmesser 7mm Durchflussmenge		
	1 g/min	10 g/min	100 g/min
-20 °C	18 bar	48 bar	> 100 bar
0 °C	2,6 bar	4 bar	14,5 bar
+20 °C	1,2 bar	1,9 bar	4,1 bar

Pack sizes	STABUTHERM GH 461	STABUTHERM GH 462
Cartrigde 370 g	+	
Cartridge 400 g	+	+
Can 1 kg	+	+
Bucket 5 kg	+	+
Bucket 25 kg	+	+
Bucket 50 kg	+	+
Drum 180 kg	+	+

STABUTHERM GH 461, 462

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Characteristics	STABUTHERM GH 461	STABUTHERM GH 462
Article number	020500	020511
Composition, thickener	polyurea	polyurea
Composition, type of oil	mineral oil	mineral oil
Colour space	beige	beige
Texture	homogeneous , long fibrous	homogeneous , long fibrous
Service temperature, lower limit	-20 °C	-10 °C
Service temperature, upper limit, in case of continuous lubrication	180 °C	180 °C
NSF H2 registration number	135680	-
NLGI grade, DIN 51818	1	2
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 31.5 mm²/s	approx. 31.5 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. 490 mm²/s	approx. 490 mm²/s
Copper corrosion, DIN 51811, 24 h, 120°C	1 - 120 - 24 corrosion degree	1 - 120 - 24 corrosion degree
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -10°C	-	≤ 1400 mbar
Flow pressure, DIN 51805-2, -20°C	≤ 1400 mbar	-
Dropping point, DIN ISO 2176 / IP 396	≥ 240 °C	≥ 240 °C
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

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.