

# KLÜBERBIO GE 32-681 180 KG

Product group: **682** Product number: **210094** 

Klüberbio GE 32-681 is a high-performance grease with a new type of base oil and additive package.

It combines very good eco-friendliness with high load-carrying capacity, good antiwear and anticorrosive effect and excellent adhesion to surfaces.



## **Product information**

Klüberbio GE 32-681 is a high-performance grease with a new type of base oil and additive package. It combines very good ecofriendliness with high load-carrying capacity, good antiwear and anticorrosive effect and excellent adhesion to surfaces. Klüberbio GE 32-681 complies with the 2013 Vessel General Permit requirements of the Environmental Protection Agency (EPA) in terms of biodegradability, minimal toxicity and bio-accumulation to be met by Environmentally Acceptable Lubricants.

Due to the lubricant's excellent low-temperature behavior, it can be pumped in centralised lubricating systems down to -30 °C and sprayed up to 0 °C. These positive product characteristics enable you to use Klüberbio GE 32-681 over a wider temperature range.

Klüberbio GE 32-681 enables a reduction of more than 50 % in lubricant consumption in jack-up lifting systems if a spray application is used. This will further reduce your operating costs and is beneficial to the environment.

#### Features

- · Compliant with the requirements for Environmentally Acceptable Lubricants (EAL) as defined by the EPA 2013 Vessel General Permit
- Good antiwear and anticorrosive effect
- Excellent adhesion to surfaces

#### Benefits

- Lower environmental impact in the event of leakage
- · Selected additives ensure longer component life and reduced wear
- Good low-temperature behavior
- Cost reduction due to low consumption when applied by selected spraying systems

### **Specification**

#### General

Invent Hazard Material (IMO/EU) classification	C-30
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#### Physical properties

Biodegradability of the base oil, acc. to OECD 301 F, (within 28 days) [%]	≥60
Colour	Beige
Density at 20°C [g/cm³]	~ 0.94
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D7042, 100 °C [mm²/s]	~90
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 $^{\circ}\text{C}$ [mm²/s]	~680
Texture	Homogeneous

#### Dimensions/Weight

Packing Size	180 kg
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#### Technical data

Chemical composition, thickener	Calcium soap
Chemical composition, type of oil	Ester oil
Flow pressure of lubricating greases, DIN 51805-2, test temperature: -30 °C [mbar]	≤1400
Shelf life [months]	24
Vessel General Permit	Passed

#### Performance data

Drop point, DIN ISO 2176, IP 396 [°C]	≥100
FZG scuffing test, based on DINISO 14635, A/2,76/50, scuffing load stage	>12
Worked penetration, DIN ISO 2137, 25 °C, lower limit value [mm]	300 x 0.1
Worked penetration, DIN ISO 2137, 25 °C, upper limit value [mm]	330 x 0.1

#### **Documents**

SDoC Kluberbio GE 32-681 180 KG

SDoC and MD for IHM

# Directions for use

Klüberbio GE 32-681 is designed to lubricate open gear- and rack & pinion drives on oil and gas platforms as well as wind turbine installation vessels.

Klüberbio GE 32-681 can be continuously applied by means of transfer pinion lubrication, spray systems, automatic greasing systems or by brush.

Contact of the lubricant with water or under the influence of humidity may increase the lubricant's consistency. This further increases the water resistance and adhesion of the lubricant.

The required lubricant quantity and the upper service temperature range depend on the operating conditions in each individual case.

https://www.wilhelmsen.com/product-catalogue/products/speciality-lubricants/kluberbio-ge-32-681-180-kg