

# Klüberfluid C-PG 17 Ultra

Operational open gear lubricant for large girth gear drives



## Your benefits at a glance

- **Lower Total Cost of Operation**
  - Very high viscosity provides the highest load carrying capacity even at elevated temperatures
  - Lower friction values provide more protection against damage and help to save energy
  - Lower consumption rates
- **Improved maintenance and safety**
  - Pumpable without the use of diluents or solvents due to very good low-temperature behavior
  - Easier inspection of the tooth flanks during operation due to the light-colored and transparent lubricant

## Your requirements - our solution

As an operator or manufacturer of large open gear drives, it is your priority to reduce downtime and minimize your total cost of operation. Open gears are subjected to challenging operating conditions like vibrations, dusty environments, highly varying loads, speeds, and operating parameters. Our Klüberfluid C-PG 17 Ultra as a high-performance lubricant concept for open gear drives can support you in this aim. It is based on an innovative synthetic base oil and was developed to meet your increasing demands of modern day open gears.

The high viscosity index of Klüberfluid C-PG 17 Ultra provides the highest film thicknesses and thus the highest load carrying capacity, even if your gears are running at elevated temperatures. Klüberfluid C-PG 17 Ultra does not contain a diluent or solvent, but can still be pumped without a heating system at temperatures <10 °C. This means the full viscosity is achieved at the moment the product is applied to the gears, without waiting for the diluent to evaporate. Lower friction values compared to conventional open gear lubricants and higher lubricant film thicknesses provide more safety against tooth damage such as pitting, plastic flow, and wear, and improves energy efficiency. This higher film thickness and lower friction coefficient have proven to lower overall tooth flank temperatures, temperature differentials, and vibrations.

Compared to traditional open gear greases, Klüberfluid C-PG 17 Ultra can reduce the lubricant consumption, extend the life of your gears and optimize your maintenance.

Klüberfluid C-PG 17 Ultra exceeds the requirements of ANSI/AGMA 6014-B15 Annex D and FLSmidth Minerals Gear Set Lubrication Guidelines.

Klüberfluid C-PG 17 Ultra is free from bitumen, solvents, heavy metals and chlorine. In addition Klüberfluid C-PG 17 Ultra contains an UV indicator to facilitate your quality inspection.

## Application

You can use Klüberfluid C-PG 17 Ultra for spray systems to lubricate large girth gear drives. It can be used with all gear sizes and power ratings. A peripheral speed of 12 m/s should not be exceeded.

Such drives are found in rotary kilns, SAG/AG mills, tube mills, rotary dryers, scrubbers, and similar machinery used in mining, coal power, cement, lime, gypsum, steel, sugar, pulp & paper, and chemical industries.

When Klüberfluid C-PG 17 Ultra is used in immersion/circulation lubrication, water ingress must be prevented.

## Application notes

When changing over to Klüberfluid C-PG 17 Ultra in total loss spray systems, the system should be flushed and then use a higher lubricant quantity for the first few hours to wash off the previous lubricant.

In spray systems operating in ambient temperatures <10 °C, drum heaters and heat traced lines may be required. Klüberfluid C-PG 17 Ultra has been approved by Lincoln, an SKF Group brand.

Please do not hesitate to contact our technical consultants and sales departments to discuss miscibility with other lubricants, relubrication procedures, etc. If you wish to optimize the service life of your equipment or have any other questions regarding your application, our experts will be pleased to help you.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

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Pack sizes	Klüberfluid C-PG 17 Ultra
Can 1 kg	+
Bucket 50 kg	+
Drum 200 kg	+

Product data	Klüberfluid C-PG 17 Ultra
Article number	039227
Chemical composition, type of oil	PAG
Lower service temperature	10 °C / 50 °F
Upper service temperature	120 °C / 248 °F
Application in automatic spray systems	10 - 120 °C
Colour space	yellow
Appearance	transparent
Density at 20 °C	approx. 1.09 g/cm <sup>3</sup>
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	>= 190 °C
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 17 000 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 2 200 mm <sup>2</sup> /s
Viscosity index, DIN ISO 2909	approx. 400
Anticorrosive properties on steel, DIN ISO 7120, method A, steel, 24 h/60 °C	passed corrosion degree
Copper corrosion, DIN EN ISO 2160, 24 h/100°C	1 - 100 corrosion degree
Pour point, DIN ISO 3016	< 6 °C
Timken-machine, ASTM-D 2782, ok load	>= 90 lbs
Four-ball EP tester, welding load, DIN 51350 part 2	>= 7 000 N
FZG scuffing test, DIN ISO 14635-3, A/2.76/50, scuffing load stage	>= 14
FZG scuffing test, DIN ISO 14635-1, A/2.76/50, change in weight	<= 0.1 mg/kWh
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 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 80 years.

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