

# Klüberfluid C-F 3 ULTRA

Operational lubricant for large girth gear drives



## Benefits for your application

- Operational lubricant for open gear drives with immersion, circulation or spray lubrication systems
- For normal to elevated component temperatures
- Free from heavy metals, chlorine, solvents, bitumen and solid particles
- Easy application
- High wear and tooth flank protection
- Reduced maintenance, lower disposal costs
- Light-coloured, transparent product

## Description

Klüberfluid C-F 3 ULTRA is a lubricant of a new generation, developed specifically for the lubrication of medium-size to large girth gear drives. It is based on synthetic hydrocarbons and mineral oil. It provides good adhesion, excellent resistance to high pressure and protection against wear. This product is suitable for use at component temperatures up to 120°C.

Klüberfluid C-F 3 ULTRA is free from bitumen, solvents, heavy metals, chlorine and solid particles.

Klüberfluid C-F 3 ULTRA meets the requirements of ANSI/AGMA 9005-E02 annex D-2.

## Application

Klüberfluid C-F 3 ULTRA can be used for immersion, paddle wheel, circulation and spray lubrication of large girth gear drives. Application possibilities are not restricted, neither by gear sizes nor power ratings. A peripheral speed of 10.0 m/s should not be exceeded.

Such drives are found in rotary kilns, tube mills, drums and similar machinery used in the cement, lime, gypsum, mining and chemical industries and in power plants. Further applications are found in sugar and paper production as well as in marine and offshore technology.

## Application notes

When applied by immersion, Klüberfluid C-F 3 ULTRA is directly transferred to the tooth flanks. You can also use the Klübermatic PA circulation lubrication system to force-pump the lubricant onto the tooth flanks.

Klüberfluid C-F 3 ULTRA can also be applied via customary spray systems.

The lubricant film on the tooth flanks can be made visible by means of a UV lamp of at least 366 nm.

## 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.

## Pack sizes

Product data	Klüberfluid C-F 3 Ultra
Article number	039080
Texture	homogeneous
Colour space	brown
Density at 20 °C	approx. 0.92 g/cm <sup>3</sup>



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Product data	Klüberfluid C-F 3 Ultra
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 16 500 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 500 mm <sup>2</sup> /s
Viscosity index, DIN ISO 2909	approx. 170
Application in automatic spray systems	15 - 120 °C
Application by immersion bath	15 - 120 °C
Application in circulation lubrication systems	15 - 80 °C
Functional lubricant film	>= -30 °C
Thermal stability of the lubricating film	<= 120 °C
Pour point, DIN ISO 3016	< 10 °C
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	>= 200 °C
FZG scuffing test, DIN ISO 14635-1, A/8.3/90, scuffing load stage	> 12
Four-ball EP tester, welding load, DIN 51350 part 2	>= 8 000 N
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	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 80 years.

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The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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