

# Klüber Summit NGL 444, 555, 777, 888

Synthetic gas compressor lubricants



## Your benefits at a glance

- For high pressure reciprocating compressors pumping natural gas, carbon dioxide or process gases
- Extremely resistant to hydrocarbon dilution and absorption and good chemical resistance to process gases
- Very high viscosity index, thus low viscosity change in a wide temperature range
- Very good wear protection for longer component lifetime
- Low residue formation for longer lifetime of valves and piston rings

## Your requirements - our solution

Klüber Summit NGL compressor lubricants are based on polyalkylene glycols and special additives.

In high-pressure reciprocating compressors pumping natural gas or hydrocarbon-based process gas, petroleum based lubricants are easily absorbed into the gas stream and diluted by the gas. Klüber Summit NGL lubricants are extremely resistant to hydrocarbon dilution and gas stream absorption.

The extremely high viscosity index of both products ensures efficient lubricity in a wide temperature range.

## Application

The Klüber Summit NGL series is designed for high pressure reciprocating compressors pumping natural gas, carbon dioxide or process gases (e.g. hydrogen, helium, nitrogen).

The Klüber Summit NGL series is designed for all oil-lubricated components in reciprocating compressors, e.g. cylinder, high-pressure packing, bearings and engine. Please observe the manufacturer's viscosity specifications.

Owing to its low pour point, Klüber Summit NGL-444 is also suitable in case of very low ambient temperatures.

Klüber Summit NGL 555 and Klüber Summit 777 can be used for the lubrication of engines, cylinders and high-pressure packings according to the gas flow and the manufacturer's specifications.

Klüber Summit NGL-888 is particularly suitable for injection compressors used in oil and gas fields because it is water soluble and compatible with well-bore treatment fluids.

Due to the varying make-up of gases and operating conditions, please contact your local Klüber representative for specific product recommendations.

The Klüber Summit NGL series is also commonly used for Hydrogen applications.

## Application notes

The Klüber Summit NGL series is not miscible with mineral oil or PAO! If you wish to change over from mineral oil/PAO oils to the Klüber Summit NGL series, please observe our changeover instructions.

Drain as much of the previously used compressor oil from the system as possible, making sure that the oil is drained while still warm. Do not forget to drain coolers, separator tanks and all lines.

Afterwards clean or change the filter, then recharge with the Klüber Summit NGL operational lubricant.

We recommend attaching a label indicating the type of lubricant used and the filling date to the filter or the cover.

## Materials compatibility

Klüber Summit NGL compressor lubricants have been designed to be compatible with NBR (share of acrylonitrile > 30%), EPDM, MVQ (silicone rubber), PTFE, polyurethane foams, as well as paints based on phenolic and epoxy resin.

They should not be used with paints based on acrylic resin, polyurethane paints and plastic materials such as PVC, polycarbonate and ABS.

## 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       | Klüber Summit NGL 444 | Klüber Summit NGL 555 | Klüber Summit NGL 777 | Klüber Summit NGL 888 |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Canister 20 l    | +                     | +                     | +                     | +                     |
| Drum 200 l       | +                     | +                     | +                     | +                     |
| Container 1000 l | +                     |                       | +                     | +                     |

| Characteristics  | Klüber Summit NGL 444          | Klüber Summit NGL 555           | Klüber Summit NGL 777           | Klüber Summit NGL 888          |
|--|--------------------------------|---------------------------------|---------------------------------|--------------------------------|
| Article number   | 050021                         | 050129                          | 050130                          | 050022                         |
| Appearance   | clear                          | clear                           | clear                           | clear                          |
| Colour space   | colourless                     | colourless                      | colourless                      | yellow                         |
| Density, DIN 51757, 20°C   | approx. 1.04 g/cm <sup>3</sup> | approx. 1.05 g/cm <sup>3</sup>  | approx. 1.06 g/cm <sup>3</sup>  | approx. 1.07 g/cm <sup>3</sup> |
| Flash point, DIN EN ISO 2592, Cleveland open cup   | ≥ 225 °C                       | ≥ 250 °C                        | ≥ 250 °C                        | ≥ 250 °C                       |
| Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C   | approx. 16 mm <sup>2</sup> /s  | approx. 19.4 mm <sup>2</sup> /s | approx. 27.8 mm <sup>2</sup> /s | approx. 40 mm <sup>2</sup> /s  |
| Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C  | approx. 79 mm <sup>2</sup> /s  | approx. 100 mm <sup>2</sup> /s  | approx. 150 mm <sup>2</sup> /s  | approx. 220 mm <sup>2</sup> /s |
| Viscosity index, DIN ISO 2909  | ≥ 208                          | ≥ 210                           | ≥ 215                           | ≥ 220                          |
| Pour point, DIN ISO 3016   | ≤ -42 °C                       | ≤ -39 °C                        | ≤ -36 °C                        | ≤ -33 °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                       | 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 90 years.

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