Ravensberger Schmierstoffvertrieb GmbH Postfach 1163 33819 Werther

Tel.: 05203/9719-0 Fax.: 05203/9719-40 / 41

# - Certificate / ProductInformation -

#### **RAVENOL Getriebeoel PAO CLP 220**

Art. 1332209

## **Description:**

**RAVENOL Getriebeöl PAO CLP 220** is premium performance, extreme pressure lubricant designed for enclosed industrial gears and bearings operating under severe load conditions and in wide extremes of temperature.

**RAVENOL Getriebeöl PAO CLP 220** is formulated using PAO synthetic base oils and additive technologies to deliver excellent wear properties, outstanding extreme temperature performance for extended component and fluid life.

**RAVENOL Getriebeöl PAO CLP 220** enhances gear box efficiency over a wide temperature range and can reduce power consumption.

## **Application Directions:**

**RAVENOL Getriebeöl PAO CLP 220** is recommended for enclosed industrial gear drives and bearings particularly where they are operated under heavy duty conditions such as heavy loading, slow speed, shock loads and in wide extremes of temperature.

The tough oil film of RAVENOL Getriebeöl PAO CLP 220 and low coefficient of friction save energy in gearboxes. The high viscosity index of RAVENOL Getriebeöl PAO CLP 220 means they retain their viscosity at high operating temperatures. This often allows the use of a lower ISO grade than with conventional gear oil resulting in even greater energy savings.

RAVENOL Getriebeöl PAO CLP 220 is designed to combat these conditions and will run cooler while maintaining a high lubricant film strength. For gearboxes that operate outdoors, RAVENOL Getriebeöl PAO CLP 220 is capable of operating at temperatures as low as -30°C or below.

When converting a gearbox to **RAVENOL Getriebeöl PAO CLP 220**, it is recommended to be cleaned and flushed first to gain the full benefit of the product.

**RAVENOL Getriebeöl PAO CLP 220** is compatible with mineral oils, polyalphaolefin lubricants and most seal materials except natural rubber.

RAVENOL Getriebeöl PAO CLP 220 operates over the temperature range from -30°C to 121°C.

## **Quality Classification:**

RAVENOL Getriebeöl PAO CLP 220 corresponds to:

DIN 51517-3, Flender Industrial Gear, Eickhoff Gear, Jahnel Kestermann, US Steel 224, AGMA 9005-E02 (EP), David Brown S1.53.101 Type E, Cincinnati Machine P-74, GE787/788 and GA880.

#### **Technical Characteristics:**

## **RAVENOL Getriebeöl PAO CLP 220 offers:**

- Extends equipment life
- Designed to protect equipment being operated under tough high load conditions
- Improves operating reliability over a wide range of gearbox loads
- Better film strength and extreme pressure properties than the leading global competitor synthetic for extended gear and bearing life
- Reduces likelihood of seizure, scuffing or spalling of gear teeth and bearings under high load conditions
- Synthetic formulation reduces friction, Energy efficient over a wide temperature range
- Excellent extreme temperature performance protects your equipment in the most extreme temperature conditions
- Wider range of service temperatures with high Viscosity Index (VI) for a wide temperature range
- Protects against water damage provides excellent resistance to rust and copper corrosion

All information correspond to the best of our knowledge to the actual situation of the cognitions and our development. Subject to alterations. All references made to DIN-norms are only for the description of the goods. There is no guarantee. In case there will be any problems please contact the technical service.

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## **Technical Values:**

Characteristics		unit	data	test according to
AGMA Grade			5 EP	_
Colour			yellow	visual
Density at 20°C		kg/m³	857	EN ISO 12185
Viscosity	at 40°C	mm²/s	223	DIN 51 562
•	at 100°C	mm²/s	26.39	DIN 51 562
Viscosity index VI			151	DIN ISO 2909
Pour point		°C	-48 / 54	DIN ISO 3016
Temperature required for 150,000 cP °C			-36 / -33	ASTM D2983
Flash Point	•	°C	235	DIN ISO 2592
Rust		Procedure A & B, 24 h	Pass	ASTM D665
Copper Corrosion 3h @		3h @ 100°C	1b	ASTM D130
Timken OK Load		kg	48 / 106	ASTM D2782
Four Ball EP weld		kg	250 / 550	ASTM D27830
FZG Pass Load Stage (A/8.3/90)			14	DIN 51354
All indicated data are approximate values and are subject to the commercial fluctuations				

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