



MEROPA®

68, 100, 150, 220, 320, 460, 680, 1000, 1500

PRODUCT DESCRIPTION

Meropa® gear lubricants are premium quality extreme pressure gear oils with excellent load carrying capacity, water demulsibility, oxidation stability, and corrosion protection.

CUSTOMER BENEFITS

Meropa gear lubricants deliver value through:

- **Gear set efficiencies** — High thermal stability EP system helps maintain clean gear and bearing surfaces, minimizing deposits which interfere with effective lubrication. High oxidation stability limits in-service viscosity increases, which can lead to energy losses.
- **Long equipment life** — Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power. Good water separation and effective rust inhibitors protect surfaces against rust and corrosion. High thermal stability additive system minimizes the formation of acidic compounds which can be corrosive to bearing materials. The effective corrosion inhibitor provides additional protection for metal components.

- **Long oil life** — Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals.

FEATURES

Meropa gear lubricants are high performance, multipurpose gear lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.



APPLICATIONS

Meropa gear lubricants are recommended for:

- Industrial enclosed gearing where an AGMA extreme pressure lubricant is specified
- Bath, splash, circulating, or spray mist lubrication as applicable to the proper viscosity grade
- General industrial plant lubrication where the performance properties of an AGMA extreme pressure lubricant is required
- Rexnord gear drives requiring a mineral-based extreme pressure lubricant

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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CLAIMS AND APPLICATIONS

| ISO Grade | 68 | 100 | 150 | 220 | 320 | 460 | 680 | 1000 | 1500 |
|--|-----------|--------------------------|--------------------------|--------------------------|-----------------|----------------|-----------|-----------|------|
| AIST (formerly U.S. Steel) 224 | M | M | M | M | M | M | M | | |
| ANSI/AGMA 9005-F16-AS | M | M | M | M | M | M | M | M | M |
| David Brown S1.53.101 (5E) | M | M | M | M | M | M | M | M | |
| DIN 51517/3 CLP | M | M | M | M | M | M | M | M | M |
| Fives Cincinnati | M P-63 | M P-76 | M P-77 | M P-74 | M P-59 | M P-35 | M P-34 | M P-78 | |
| Grob Lubricant Chart | A | A | A | A | A | A | A | | |
| ISO 12925-1 CKC | M | M | M | M | M | M | M | M | |
| ISO 12925-1 CKD | M | M | M | M | M | M | M | | |
| Joy Mining Machinery | | | | M TO- MEP | M TO- HEP | M TO- HD | | | |
| Pekrun Werknorm N8053 | A | A | A | A | A | A | A | A | |
| Rexnord ^a Falk gear drive models: V, A, F, J, Planetgear Obsolete Falk gear drive models: Class D, G, Y, Link Belt Model "R" | A | A | A | A | A | A | A | | |
| Rexnord ^a Falk EP | A | A | A | A | A | A | A | | |
| SMS Group SN 180-2 | | A | A | A | A | A | A | | |
| Sumitomo Drive Technologies Paramax 9000 | A | A | A | A | A | | | | |
| Waldrich Siegen Lubricants for Machine Tools | A | A | A | A | A | | A | | |
| ZF | | A TE-ML 04H | A TE-ML 04H | A TE-ML 04F | | | | | |

a Consult with Rexnord/Falk Gear for applications: worm gear drives, high-speed drives, open gearing or any custom gear drive.

A: Approved for

M: Meets or exceeds requirements

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

Meropa gear lubricants have a typical sulfur-phosphorus odor characteristic of industrial gear oils. A ventilated environment is recommended during use.

TYPICAL TEST DATA

| ISO Grade | Test Method | 68 | 100 | 150 | 220 | 320 |
|---|--------------------------|--------------|--------------|--------------|--------------|--------------|
| Product Number | | 277209 | 277219 | 277210 | 277211 | 277212 |
| SDS Number | | 23551 | 23551 | 23551 | 23551 | 23551 |
| AGMA Grade | | 2 EP | 3 EP | 4 EP | 5 EP | 6 EP |
| API Gravity | ASTM D287 | 31.0 | 30.6 | 29.7 | 28.4 | 27.3 |
| Density at 15°C, kg/L | ASTM D4052 | 0.8703 | 0.8725 | 0.8773 | 0.8845 | 0.8906 |
| Viscosity, Kinematic cSt at 40°C cSt at 100°C | ASTM D445 | 68 8.8 | 100 11.6 | 150 15.1 | 220 19.5 | 320 25.0 |
| Viscosity Index | ASTM D2270 | 100 | 103 | 100 | 100 | 100 |
| Flash Point, °C(°F) | ASTM D92 | 236(457) | 250(482) | 264(507) | 278(532) | 278(532) |
| Pour Point, °C(°F) | ASTM D97 | -32(-26) | -29(-20) | -26(-15) | -23(-9) | -22(-8) |
| Foam Test, Seq. II Tendency, mL Stability, mL | ASTM D892 | 50 max 0 | 50 max 0 | 50 max 0 | 50 max 0 | 50 max 0 |
| Water Separation Minutes to 3 mL emulsion | ASTM D1401 | 25 | 20 | 20 | 20 | 25 |
| Copper Corrosion 3 h @ 100°C | ASTM D130 | 1B | 1B | 1B | 1B | 1B |
| Rust Test | ASTM D665A ASTM D665B | Pass Pass | Pass Pass | Pass Pass | Pass Pass | Pass Pass |
| Timken OK Load, lb | ASTM D2783 | 70 | 70 | 75 | 75 | 75 |
| 4 Ball Weld Weld Point, kg Load Wear Index | ASTM D2783 | 250 45.9 | 250 >45 | 250 >45 | 250 52.9 | 250 >45 |
| FE-8 Bearing Test Roller weight loss, mg | DIN51819-3 | 3.7 | 3.7** | 3.7** | 2.1 | 2.1# |
| FZG Scuff Test, A/8.3/90°C, Fail Stage | ASTM D5182 | >14 | >14 | >14 | >14 | >14 |
| FZG Pass Stage | ASTM D5182 | 12 | 12 | 12 | 12 | 12 |

**Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 68

#Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 220

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

TYPICAL TEST DATA

| ISO Grade | Test Method | 460 | 680 | 1000 | 1500 |
|---|--------------------------|--------------|--------------|---------------|---------------|
| Product Number | | 277213 | 277214 | 277215 | 277216 |
| SDS Number | | 23551 | 23551 | 23551 | 23551 |
| AGMA Grade | | 7 EP | 8 EP | 8A EP | 9 EP |
| API Gravity | ASTM D287 | 26.3 | 26.0 | 25.9 | 25.7 |
| Density at 15°C, kg/L | ASTM D4052 | 0.8962 | 0.8979 | 0.8985 | 0.8996 |
| Viscosity, Kinematic cSt at 40°C cSt at 100°C | ASTM D445 | 460 31.3 | 680 41.6 | 1000 55.5 | 1500 76.2 |
| Viscosity Index | ASTM D2270 | 98 | 101 | 106 | 113 |
| Flash Point, °C(°F) | ASTM D92 | 279(534) | 279(534) | 273(523) | 272(522) |
| Pour Point, °C(°F) | ASTM D97 | -21(-6) | -21(-6) | -22(-8) | -19(-2) |
| Foam Test, Seq. II Tendency, mL Stability, mL | ASTM D892 | 50 max 0 | 50 max 0 | 50 max 0 | 50 max 0 |
| Water Separation Minutes to 3 mL emulsion | ASTM D1401 | 30 | 40 | 20 | 40 |
| Copper Corrosion 3 h @ 100°C | ASTM D130 | 1B | 1B | 1B | 1B |
| Rust Test | ASTM D665A ASTM D665B | Pass Pass | Pass Pass | Pass Pass | Pass Pass |
| Timken OK Load, lb | ASTM D2783 | 80 | 80 | 80 | 80 |
| 4 Ball Weld Weld Point, kg Load Wear Index | ASTM D2783 | 250 >45 | 250 51.4 | 250* 51.4* | 250* 51.4* |
| FE-8 Bearing Test Roller weight loss, mg | DIN51819-3 | 2.1# | 2.1# | 2.1# | 2.1# |
| FZG Scuff Test, A/8.3/90°C, Fail Stage | ASTM D5182 | >14 | >14 | >14 | >14 |
| FZG Pass Stage | ASTM D5182 | 12 | >12 | >12 | >12 |

*Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 680

#Read-across data: In this test, lower ISO grades are typically more severe than higher ISO grades; therefore, data is read-across from ISO 220

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.