



## **FP VORTEXÖL EP 320**

### **MINERAL**

#### **PRODUCT DESCRIPTION:**

FP VORTEXÖL EP gear lubricants are high-performance, multipurpose mineral oil based lubricants designed for many types of industrial gear lubrication services where loads and shock loadings are high.

#### **APPLICATION:**

FP VORTEXÖL EP gear oils are recommended for industrial enclosed gearing where an AGMA extreme pressure lubricant is specified. It is designed for use in industrial gear boxes including in crushers, hoists, conveyors, winches, machine tools and lathes. It can also be used in chain drives, sprockets, plain and anti-friction bearings and slide guides.

#### **FEATURES & BENEFITS:**

- High thermal stability EP system helps maintain clean gear and bearing surfaces.
- Effective EP system forms a protective film in areas of metal-to-metal contact, minimizing wear rates and maintaining efficient transfer of power.
- Effective oxidation inhibitors and copper passivator minimize oil oxidation, limiting viscosity increase and promoting long drain intervals.

#### **PERFORMANCE LEVELS: Meets or Exceeds:**

- AGMA EP 9005-E02
- DIN 51517-3 (CLP)
- MAG Cincinnati, Cincinnati Machine P-63 (ISO 68), P-76 (ISO 100), P-77 (ISO 150), P-74 (ISO 220), P-59 (ISO 320), P-35 (ISO 460)
- U.S. Steel 224 Specification (ISO 220, 320, 460, 680)
- FLENDER

#### **TYPICAL PROPERTIES:**

| PARAMETERS                        | ASTM       | UNIT | RESULT |
|-----------------------------------|------------|------|--------|
| Grade                             |            |      | 320    |
| Kinematic Viscosity@ 104°F /40°C  | ASTM D7042 | cSt  | 320    |
| Kinematic Viscosity@ 212°F /100°C | ASTM D7042 | cSt  | 23.9   |
| Viscosity Index                   | ASTM D2270 | -    | 95     |
| Flash Point                       | ASTM D92   | °C   | 238    |
| Pour Point                        | ASTM D97   | °C   | -15    |
| Timken OK Load                    | -          | lb   | 65     |
| FZG Pass Stage                    | ASTM D5182 | -    | 12     |

#### **HEALTH & SAFETY, ENVIRONMENT:**

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point.