



Product Data

Alpha CLP

Industrial Gear Oil Range (Formerly known as EP Gear Lube)

Description

Castrol Alpha CLP gear oils are exceptional quality gear oils designed for severe duty applications, surpassing the requirements of U.S. Steel 224 type gear oils and other key industrial specifications as listed below. They offer excellent gear protection with the potential for extended drain intervals with periodic checks by Castrol's Labcheck Used Oil Analysis Program. Castrol Alpha CLP gear oils are formulated with selected base oils that are coupled with a highly stable extreme pressure additive package that make them the ideal choice where AGMA EP type gear oils are recommended

Application

Castrol Alpha CLP gear oil provides longer equipment life, efficient gear operation, reduced maintenance costs, longer lubricant life, offers great performance for most types of Industrial gears and excels in applications demanding superior U.S. Steel 224 performance.

Alpha CLP is formulated to meet the requirements of the following key Industrial specifications:-

- AGMA 9005-F16 Antiscuff
- U.S. Steel 224
- DIN 51517 Part III
- MAG Cincinnati, Cincinnati Machine: P-63 (ISO 68), P-77 (ISO 150), P-74 (ISO 220), P-59 (ISO 320), P-35 (ISO 460)
- Exceeds all manufacturer's warranty requirements for applications requiring an AGMA EP, USS 224, or DIN 51524 part 3 type gear oil.

Advantages

- Excellent thermal and oxidation stability providing minimal viscosity increase and a stable Sulfur/phosphorus package at high temperatures.
- Superior demulsibility separating water readily where water contamination is present.
- Good corrosion, rust and antifoam protection reducing catalytic effects of corrosion and wear on various system metals.

Typical Characteristics

| Test | Method | Units | CLP 68 | CLP 150 | CLP 220 | CLP 320 | CLP 460 |
|--|------------------------------------|--------------------|---------------|---------------|---------------|---------------|---------------|
| Appearance | Visual | - | Clear& Bright | Clear& Bright | Clear& Bright | Clear& Bright | Clear& Bright |
| Density @ 15°C / 59°F [NEED] | DIN 51757 / ISO 12185 / ASTM D4052 | g/ml | 0.889 | 0.891 | 0.892 | 0.895 | 0.898 |
| API Gravity @ 60°F/15.6°C | ASTM D1250 | | 30.2 | 26.6 | 28.8 | 27.9 | 27.1 |
| Kinematic Viscosity @40°C/104°F | (DIN EN) ISO 3104 / ASTM D445 | mm ² /s | 66 | 159 | 212 | 304 | 467 |
| Kinematic Viscosity @100°C/212°F [NEED] | (DIN EN) ISO 3104 / ASTM D445 | mm ² /s | 8.4 | 14.5 | 18.8 | 24.4 | 30.5 |
| Viscosity Index [NEED] | (DIN) ISO 2909 / ASTM D2270 | - | 92 | 96 | 93 | 91 | 91 |
| Pour Point | (DIN) ISO 3016 / ASTM D5950 | °C | -21 | -24 | -15 | -15 | -12 |
| Flash Point - open cup method | (DIN EN) ISO 2592 / ASTM D92 | °C | 220 | 220 | 230 | 230 | 230 |
| Rust test - synthetic seawater (24 hrs) [NEED] | (DIN) ISO 7120 / ASTM D665B | Rating | Pass | Pass | Pass | Pass | Pass |
| Copper corrosion (3 hrs @100°C/212°F) | (DIN EN) ISO 2160 / ASTM D130 | Rating | 1a | 1 | 1 | 1 | 1 |
| Water Separation @ 54°C / 129°F (40/37/3) [NEED] | (DIN) ISO 6614 / ASTM D1401 | minutes | 10 | - | - | - | - |
| Water Separation @ 82°C / 180°F (40/37/3) [NEED] | (DIN) ISO 6614 / ASTM D1401 | minutes | - | 15 | 15 | 20 | 20 |
| Foam Sequence I - tendency / stability [NEED] | ISO 6247 / ASTM D892 | ml/ml | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |
| FZG Gear Scuffing Test A/8.3/90 | (DIN) ISO 14635-1 | Failure Load Stage | >14 | >14 | >14 | >14 | >14 |
| Oxidation Stability - EP oils (95°C@312 hrs). Viscosity @100°C/212°F increase [NEED] | (DIN EN) ISO 4263-4 / ASTM D2893 | % | - | - | 4 | 4 | 4 |
| Elastomer Compatibility, SRE-NBR 28/SX [NEED] | (DIN) ISO 1817 | Vol % | - | - | 3.8 | - | - |
| Brugger test [NEED] | DIN 51347 | N/mm ² | - | - | 46 | - | - |
| Color | ASTM D1500 | | L2.5 | L2.5 | L2.5 | L3.0 | L3.5 |
| Demulsibility at 30 mn | ASTM 1401 | | Pass | Pass | Pass | Pass | Pass |
| Four Ball EP Properties, Weld Point (Kg) | ASTM 2783 | Kg Load | 250 | 315 | 315 | 250 | 250 |
| Four Ball Load Wear Index | ASTM 2783 | Kgf | 46.8 | 50.6 | 51.9 | 44.1 | 49.5 |

Subject to usual manufacturing tolerances.

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