



Product Data

Alphasyn EP Range

Synthetic heavy duty (PAO) EP gear oils

Description

The Castrol Alphasyn EP gear oil range of high quality synthetic lubricants are based on polyalpha-olefin (PAO) fluids and sulphur / phosphorus Extreme Pressure (EP) additive technology providing outstanding thermal stability and high load carrying capacity.

The Alphasyn EP range has been formulated for use in all types of enclosed gears including heavy loaded / shock-loaded gears and bearings where EP properties are required. They are suitable for use in gearboxes where micropitting resistance is required and for a wide range of applications in extreme environments.

The use of a PAO basestock provides inherently high Viscosity Index (VI) and low pour points making these products suitable for use over a wide temperature range.

The Alphasyn EP range is fully compatible with nitrile, silicone and fluropolymer seal materials.

Application

- Heavily loaded gearboxes subjected to extremes of temperature.
- Draw works transmissions on Mobile Offshore Drilling Units and Onshore sites.
- Top Drives on Mobile Offshore Drilling Units and Onshore sites.

Approval Status

Alphasyn EP is classified as follows:

- DIN Classification is CLP.

Alphasyn EP grades meets the requirements of:

- DIN 51517 Part 3.
- AGMA 9005 - D94.
- US Steel 224.
- David Brown Type E.
- Hansen Transmissions.
- Flender.
- Lohmann & Stofferfoht.

Features and Benefits

- Full EP performance gives maximum protection of gears against wear and shock loading, including protection against micropitting.
- Good thermal and oxidative stability provides reliable operation and extended operating life when compared to mineral oil based products.
- Inherently high Viscosity Index makes the product suitable for operations operating over a wide temperature range.
- Rapid air release and good performance in the Flender Foam Test prevents foaming and bearing damage.
- PAO based lubricant provides good compatibility with seals, paints and mineral oil based lubricants.
- Excellent thermal stability and oxidation resistance.

Technical Data

| Name | Method | Units | Alphasyn EP 150 | Alphasyn EP 220 | Alphasyn EP 320 | Alphasyn EP 460 |
|------------------------------|------------|--------------------|-----------------|-----------------|-----------------|-----------------|
| ISO Viscosity Grade | | | 150 | 220 | 320 | 460 |
| Viscosity, Kinematic 40°C | ASTM D445 | mm ² /s | 150 | 220 | 320 | 460 |
| Viscosity, Kinematic 100°C | ASTM D445 | mm ² /s | 18 | 25 | 33 | 45 |
| Viscosity Index | ASTM D2270 | | 140 | 140 | 140 | 140 |
| Pour Point | ASTM D97 | °C | -48 | -42 | -36 | -36 |
| Open Flash Point | ASTM D92 | °C | 220 | 220 | 230 | 230 |
| Foaming Tendency / Stability | | mls / mls | 0/0 | 0/0 | 0/0 | 10/0 |
| Rust Prevention, Sea Water | ASTM D892 | | Pass | Pass | Pass | Pass |
| Timken OK Load | ASTM D2782 | lbs | | 85 | 90 | >90 |
| FZG Gear Test (A/16.6/90) | DIN 51354 | FLS | >12 | >12 | >12 | >12 |
| FZG Gear Test (A/8.3/90) | DIN 51354 | FLS | >12 | >12 | >14 | >14 |

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Additional Information

Please note that the Castrol Alphasyn EP range of gear lubricants are miscible with mineral but not compatible with PAG or any other type of synthetic gear lubricants.

Care and Handling

Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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