



Energyn EP-XF

Premium Synthetic Gear Lubricant

Description

Energyn EP-XF is a range of premium quality gear oils based on polyalpha-olefin fluids and containing extreme pressure additives. This ensures excellent performance in heavily loaded or shock-loaded gears and bearings where extreme pressure lubricant properties are required. In addition, these oils give good protection against micro-pitting

Unlike esters or glycols they demonstrate good compatibility with mineral lubricants.

Applications

Energyn EP-XF have been formulated for use in all types of enclosed gears including heavy duty systems requiring an EP lubricant.

requirement for both 72 NBR 902 and 75 FKM 585. They also meets the requirements of US Steel 224, AGMA 250.04, DIN 51517 Part 3 (CLP)

These products meet the micropitting requirements of Flender, Germany, and the stringent seal compatibility

Main Benefits

- Excellent protection against micro-pitting
- Good oxidation stability leads to longer service life.
- Very low pour point and very high viscosity index allow the grades to be used throughout an extremely wide operational temperature range (-30 °C to 120 °C).
- Good extreme pressure properties and load carrying characteristics mean reduced wear even when gears are heavily loaded
- .- Very good air release properties.

- Excellent compatible with mineral oil-based lubricants and most seals and paints used in gearboxes.
- No additional costs are incurred when replacing mineral based lubricants with Energyn EP-XF compared to ester or glycol-based products.
- Low friction coefficient leads to reduced energy consumption which in turn reduces operating temperatures

Storage

All packages should be stored upright in a covered area, away from extreme climatic influences, dirt and dust.

Health, Safety and Environment

Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.

BP Lubricants and Special Products Ltd. or its subsidiaries will not accept liability if the product is used other than in the manner or with the precautions or for the purpose/s specified. Before the product is used other than as directed, advice should be obtained from the local BP office.

Typical Characteristics

Test Methods	Units	Grade :

150 220 320 460 680

Kv40 ASTM D445 cSt 150 220 320 460 680
 Viscosity Index ASTM D2270 --- 140 140 140 140 140
 Density ASTM D1298 kg/m³ 858 860 863 868 872
 Flash point ASTM D92 deg C 240 240 240 240 240
 Air release value @50oC IP 313 mins 20 - - - -
 Air release value @90oC IP 313 mins - 8 10 14 -
 Rusting tendency ASTM D665 A/B rating pass pass pass pass pass
 Copper corrosion (3hrs/100oC) ASTM D130 rating 1B 1B 1B 1B 1B
 Foaming tendency ASTM D892
 Sequence I ml/ml 0/0 0/0 0/0 0/0 0/0
 Sequence II ml/ml 0/0 0/0 0/0 0/0 0/0
 Sequence III ml/ml 0/0 0/0 0/0 0/0 0/0
 Foaming tendency Flender % vol <15% <15% <15% <15% <15%
 Demulsibility @82oC ASTM D1401 mins 5 5 10 10 15
 (Time to <3ml emulsion)
 Demulsibility (EP oil method) ASTM D2711
 Total free water ml 85 85 85 85 -
 Water in oil % vol 1 1 1 1 -
 Emulsion ml 0.5 0.5 0.5 0.5 -
 Pour point degC -48 -42 -36 -36 -30
 Oxidation stability @121oC ASTM D2893
 - Increase in KV@40oC % 3 3 3.5 3.5 -
 Oxidation stability @120oC IP 280
 (with catalyst, 164hrs)
 Total sludge % 0.05 0.1 0.3 - -
 Total oxidation products % 0.4 0.4 0.6 - -
 Timken OK Load ASTM D2782 lb 85 90 90 >90 -
 4-Ball Wear ASTM D2266 mm 0.3 0.3 0.3 0.3 -
 - 20 kg, 1800 rpm, 1hr, 130°F
 4-Ball Load ASTM 2733
 - Load wear index kgf 45 50 55 55 -
 - Weld point kg 250 260 260 260 -
 FZG (double speed) DIN 51354 part 2 FLS >12 >12 >12 >12 >12
 FZG A8.3/90 DIN 51354 FLS - - >14 >14 >14
 FZG Micropitting resistance FVA rating High High High High High

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

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