



Energyn SG-XP 220

Premium Synthetic Gear Lubricant

Description; Description

Energyn SG-XP 220 is a fully synthetic gear lubricant based on carefully selected polyglycol fluids and

contains anti-oxidant, rust-inhibiting and EP additives of high thermal stability.

Applications; Applications

Energyn SG-XP 220 has inherently superior properties relative to mineral lubricants and is therefore especially suitable for the high temperature lubrication of gears and bearings, particularly in large scale mills and calenders.

In worm gears operating with mineral oil at low speeds and high torques, conditions of boundary lubrication tend to promote pitting and consequent rapid wear of bronze worm-wheels. Fatty oils (also known as compounded oils) were found to be effective in reducing pitting, but suffered from rapid oxidation at high running temperatures. Energyn SG-XP 220 is suitable for these applications and also provides scope for extended drain and change intervals.

Some manufacturers use Energyn SG-XP 220 as a "fill-for-life" lubricant. However, please note it is NOT miscible with mineral oils.

Normal industrial paints are not compatible with Energyn SG-XP 220. Consequently, gearboxes should be left unpainted internally, or alternatively should be painted with two component coatings such as epoxy resins.

Care must be taken that seal materials are compatible with Energyn SG-XP 220. The recommended materials are nitrile rubber (NBR), fluoro-silicone rubber (FVMQ), and vinyl-methyl-polysiloxane rubber (VMQ). Incompatible materials are likely to shrink or swell, thus causing either severe leakage or seizure of the seal.

Main Benefits; Main Benefits

- Reduced frictional losses leads to reduced energy consumption and lower sump temperatures.
- Higher thermal stability, hence minimal formation of sludge and deposits.
- Better load-carrying properties and reduced wear compared with conventional mineral oils.

- Inherently higher Viscosity Index (VI) which, with the lower pour point, results in a wider range of service temperatures (- 30 °C to 150 °C continuous bulk temperatures, with intermittent operating temperatures of up to 220°C)

Storage; 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.
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of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.; of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

Health, Safety and Environment; 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.; 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.

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Typical Characteristics; Typical Characteristics

Test Methods; Units; UnitsGrade :: Grade :
Test Methods

			220
Density at 15 °C	ISO 3675, ASTM D1298	kg/m ³	1025
Flash Point (COC)	ISO 2592, ASTM D92	°C	280
Viscosity KV @ 40 °C	ISO 3104, ASTM D445	mm ² /s	240
100 °C			37.7
Viscosity Index	ISO 2909, ASTM D2270		200
Pour Point	ISO 3016, ASTM D97	°C	-36
Corrosion - rust protection	ISO 7210, ASTM D665A		no rust
Copper corrosion	ISO 2160, ASTM D130		1A
Timken OK Load	IP 240	lb	75
Four Balls EP Tests :			
Welding load	ASTM D2783, IP 239	kg	315
Wear scar diameter (1h / 40 kg)		mm	0.40
FZG gear test :	IP 334, DIN 51 354	stage	
A/8.3/90 °C		failure	>12
A/16.6/140 °C			>12

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

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