

## **TECHGEAR-320 WT (PAO)** (Main Gear-Box / Auxillary Gear Drives / Planetary Gear Box)

DESCRIPTION: TECHGEAR-320 WT are premium high performance fully synthetic gear oils specially developed for wind turbines and various types of enclosed industrial gears operating under normal to extremely heavy duty conditions. Formulated from water soluble PAO (PolyAlphaOlefin) /Ester based with high viscosity index synthetic base oil, extra anti-foam (silicon free defoamer) with ester additive and excellent load carrying capacity extreme pressure, anti-oxidant & anti-rust additives.TECHGEAR-320 WT oils provide clean-gear performance, excellent extreme pressure and micro-pitting protection, anti-wear, superior performance across wide temperature range, and provides energy saving opportunities with reduced bulk oil temperatures, smooth operation of the gear drives and up to 2x long lasting performance. PolyAlphaOlefin is 100% synthetic base oil which provides longer lubrication.

## **APPLICATION**

- Recommended for the gearboxes in wind turbines of all sizes and capacities, especially for heavy loads and high shock loaded gear units, remotely located units and extreme high & low temperature environments.
- It is especially recommended for wind turbines applications such as main gear motors for pitch and yaw drives that may be subject to Auxiliary gearboxes, micro pitting, gearbox rolling element bearings, especially heavily loaded gearboxes with surface-hardened tooth metallurgies at high and low speed.
- TECHGEAR-320 WT is long life synthetic oils range for the lubrication of worm gears, Bevel Helical gears, Planetary gears, Helical gears, Power generation gear drives such as mills and heavily loaded gear drives.

## **FEATURES & BENEFITS**

- Excellent lubricating power & reduce the coefficient of friction under thin film lubricating conditions.
- Great thermal and oxidation stability, excellent cleanliness for sludge free gear drives at high temperature.
- High anti-corrosive & anti-rust power in the presence of humidity.
- Highly resistance to the formation of foam and water emulsions.
- Limits power loss from friction and makes gears function smoothly, uniformly and silently with low noise.
- Increase the useful life of the gears and bearings, excellent protection against wear by micropitting.
- High quality synthetic PAO/Ester based (PolyAlphaOlefin) base oil with high viscosity index ensure good lubricant film thickness over a broad temperature range. Due to its synthetic nature, it allows extend long drain interval more than 7 years and improve the reliability of your gearboxes.

## **PROPERTIES**

ISO Viscosity Grade	320
Viscosity @ 40 °C, Cst	320
Viscosity @ 100 °C, Cst	40.6
Viscosity Index	178
Flash Point °C	240
Pour Point °C	-48
Density @ 15 °C	0.881
Total Acid Number, mg KOH/g	0.5
Copper Strip Corrosion @ 100 °C for 24 hrs.	1b
Rust Protection Sea Water	pass
4 Ball EP Weld Load Test, kgs	>250
Foam Tendency, SEQ-I	10/0

Additional Information: While TECHGEAR-320 WT is compatible with mineral oil-based products, it is recommended that systems are thoroughly cleaned out and flushed before switching to TECHGEAR-320 WT to achieve the maximum performance benefits.