



WORLD CLASS LUBRICANTS  
FOR TROPICAL CONDITIONS

# Industrial Syn- Tec Gear Oil

## GENERAL

**Ultra Industrial Syn-Tec Gear Oil** is a premium quality, lead-free, extreme pressure (EP) gear oil utilizing sulphur-phosphorus EP technology. These scientifically engineered synthetic lubricants are formulated from synthetic base fluids that have exceptional oxidation and thermal properties. This results in an overall performance level superior to leaded EP gear oils, while at the same time satisfying environmental requirements.

**Ultra Industrial Syn-Tec Gear Oil** is manufactured from premium quality synthetic base oils which have inherently low traction properties that result in low fluid friction in the load zone of non-conforming surfaces such as gears and rolling element bearings. Reduced fluid friction produces lower operating temperatures and can help improve gear efficiency. They are blended with a special “Clean Gear Technology” additive package, incorporated to enhance the:

- Anti-wear performance
- Thermal stability
- Corrosion protection
- Anti-foam properties
- Oxidation stability
- Cleaner Gear Sets

## KEY BENEFITS

The use of **Ultra Industrial Syn-Tec Gear Oils** with “Clean Gear Technology” would result in:

- Minimizing wear of heavy and shock loaded enclosed gears.
- High load carrying capacity in steel gear transmissions.
- Good anti-friction characteristics in steel/phosphor-bronze gear units.
- Less downtime and longer gear-set working life.
- Good oxidative and thermal stability in systems with bulk oil temperatures up to 100°C.
- Minimizing of harmful sludge and emulsions.

## MAIN APPLICATIONS

- Recommended where the use of EP lubricants are specified or required.
- Enclosed industrial gear drives, including worm gears.
- Steel/Phosphor-bronze gear sets.
- High load carrying capacity in steel gear transmissions except for automotive hypoid gears.
- Circulating and splash lubricated systems and may also be used in oil mist applications.

## **PERFORMANCE SPECIFICATIONS**

The **Ultra Industrial Syn-Tec Gear Oil** range of lubricants meets or exceeds the test requirements of:

- AIST (Formerly US Steel)      224
- AGMA                                9005 – E02
- David Brown                    S1.53.101E
- DIN 51517                        Part 3
- API                                 GL-5, GL - 4

## **TYPICAL PROPERTIES**

	TEST METHOD								
NP Industrial Gear Oils		68	100	150	220	320	460	680	800
ISO Viscosity Grade	ISO 3448	68	100	150	220	320	460	680	800
Kin. Viscosity @ 40°C, cSt	ASTM D445	68.5	100.33	150.62	220.42	320.33	460.22	680.21	800.52
Kin. Viscosity @ 100°C, cSt	ASTM D445	10.75	14.30	19.5	26.45	35.2	46.20	62.80	71.50
Viscosity Index	ASTM D2270	146	149	151	153	155	157	162	166
Pour Point, °C	ASTM D97	-45	-42	-39	-36	-33	-30	-27	-24
Closed Flash Point, °C	ASTM D93	199	208	198	195	220	210	212	212
Specific Gravity 60/60°F	ASTM D1298	0.887	0.8815	0.8864	0.8911	0.8948	0.8986	0.9137	0.9189
Rust Prevention									
Distilled Water	ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Synthetic Sea Water	ASTM D665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Timken, OK Load lbs, min	ASTM D2782	60	60	60	60	60	60	60	60
Four-Ball E.P. Weld Point kgf, min	ASTM D2596	315	315	315	315	315	315	315	315
FGZ Gear Test (A/8.3/90) Pass Load Stage, min		12	12	12	12	12	12	12	12

## **HEALTH AND SAFETY**

**Ultra Industrial Syn-Tec Gear Oil** is unlikely to pose any health or safety hazards when used in the recommended applications, provided good standards of personal and industrial hygiene are observed. Please refer to Material Safety Data Sheet (MSDS) for further information.

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