



PRODUCT DATA SHEET

NP INDUSTRIAL GEAR OILS

GENERAL

NP Industrial Gear Oil is a premium quality, lead-free, extreme pressure (EP) gear oil utilizing sulphur-phosphorus EP technology. This results in an overall performance level superior to leaded EP gear oils, while at the same time satisfying environmental requirements.

NP Industrial Gear Oil is manufactured from premium quality hydro-treated base oils, which contain lower levels of impurities, and 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 **NP Industrial 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 **NP Industrial 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



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TYPICAL PROPERTIES

	TEST METHOD									
NP Industrial Gear Oils		68	100	150	220	320	460	680	800	3200
ISO Viscosity Grade	ISO 3448	68	100	150	220	320	460	680	800	3200
Kin. Viscosity @ 40°C, cSt	ASTM D445	64	100	150	220	320	460	680	800	3180
Kin. Viscosity @ 100°C, cSt	ASTM D445	8.57	11.50	15.5	19.60	25.2	30.90	38.5	39.76	85.60
Viscosity Index	ASTM D2270	105	101	101	100	100	97	95	92	85
Pour Point, °C	ASTM D97	-27	-21	-24	-21	-15	-12	-12	-9	-6
Closed Flash Point, °C	ASTM D93	199	208	198	195	220	210	212	212	228
Specific Gravity 60/60°F	ASTM D1298	0.887	0.8815	0.8864	0.8911	0.8948	0.8986	0.9137	0.9189	0.925
Rust Prevention										
Distilled Water	ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Synthetic Sea Water	ASTM D665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Timken, OK Load lbs, min	ASTM D2782	60	60	60	60	60	60	60	60	65
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	>12

HEALTH AND SAFETY

NP Industrial 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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