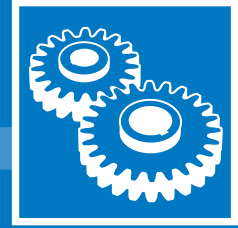


CPI®-4650 Series

Premium Synthetic-Based Industrial Gear Oil



Description

The **CPI®-4650** Series of industrial gear oils is a premium mainline lubricant, formulated to meet the challenges of today's industrial equipment. Formulated with only high-quality synthetic base oils and a robust additive package, CPI®-4650 is completely optimized for spur, helical, & spiral-bevel enclosed gear systems operating under different sliding speeds and loading conditions. A complex extreme-pressure (EP)/anti-wear (AW) system is at the centre of CPI®-4650, delivering ultimate boundary lubrication performance to both gears and bearings across all viscosity grades. Outstanding water-separation properties of CPI®-4650 delivers peak performance in high moisture environments while delivering superior cleanliness and outstanding resistance to foam. With CPI®-4650, overall fluid life is extended with minimal equipment downtime, a key lubricant selection criteria.

The **CPI®-4650** Series is available across a wide range of viscosity grades from ISO VG 220 to 1000, delivering a complete product line for all sliding speeds, loads and operating temperatures.

Applications

- Enclosed gearboxes operating under high temperatures and loading conditions
- Industrial gear systems where high moisture environments are present

Industrial Gear Oil Specifications

CPI®-4650 Series will meet or exceed the performance requirements of:

- US Steel 224
- AGMA 9005-E02
- DIN 51517-3
- ISO 12925-1 CKC/CKD
- David Brown S1.53.101
- MAG IAS Machine Gear
- GM LS 2 EP Gear Oil

Features and Benefits

EP performance

Excellent demulsibility

Foam control

Thermal and oxidative stability

Corrosion resistance profile

Superior anti-seizure performance across all viscosity grades

Optimum water separation at different temperatures

Sufficient oil flow and lubricant film to moving parts

Minimizes deposit formation for cleaner gears

Compatible with gear components of all metal-types

Typical Physical and Chemical Properties of CPI®-4650 Series

Test Procedure	ASTM Test Method	220	320	460	680	1000
Density @ 20°C, g/mL	D4052	0.85	0.86	0.86	0.86	0.87
Kinematic Viscosity, cSt	D445					
40°C		220	315	457	668	991
100°C		28.3	36.7	48.6	63.9	80.0
Viscosity Index	D2270	166	165	166	167	159
Pour Point, °C	D97	-44	-43	-42	-34	-32
Flash Point, °C	D92	243	243	243	243	243
Foaming Tendency, mL	D892					
Sequence I		0/0	0/0	0/0	0/0	0/0
Sequence II		0/0	0/0	0/0	0/0	0/0
Sequence III		0/0	0/0	0/0	0/0	0/0
Demulsibility, min.	D1401	15	10	20	30	60
Rust Test	D665					
A - Distilled Water		Pass	Pass	Pass	Pass	Pass
B - Salt Water		Pass	Pass	Pass	Pass	Pass
Copper Corrosion	D130	1B	1B	1B	1B	1B
FZG (A/8.3/90), pass stage		TBD	>14	>14	>14	>14
4-Ball Wear, mm	D4172	0.33	0.33	0.33	0.33	0.34

This product is also available in other viscosities and in a variety of packages. Additional test data is available on request. Please contact CPI for more information.

CPI is a world leader in the synthetic lubricants industry with operations in North America, Europe, Africa and Asia Pacific regions.

In addition to our CPI®-4650 lubricants, we also offer a comprehensive range of Industrial Lubricants for Process gas, Hydrocarbon gas, Air Compressors, Vacuum Pumps, Hydraulics, Gears, Chains, Turbine, Landfill Gas, Field Gas, Chemical Process and many NSF H1 & H2 Food Grade applications.

We also offer lubricants for any refrigeration application including HFC, HCFC and HFO refrigerants, domestic and automotive air conditioning, commercial and industrial refrigeration and low Global Warming Potential (GWP) refrigerants such as Carbon Dioxide, other Hydrocarbons and Ammonia.

CPI is ISO 9001 and ISO 14001 accredited and also registered for the production of Halal, Kosher and Pareve products.