Heavy duty gear and bearing oil specifically formulated for heavy industrial equipment.

Provides superior protection against leaking seals, dry starts, water contamination, oxidation and foaming.

LASTS UP TO FOUR TIMES LONGER THAN CONVENTIONAL GEAR OILS

Provides Superior Equipment Protection for:
- Industrial Manufacturing
- Food Processing
- Steel Mills & Foundries
- Paper Mills, Printing, & Packaging
- Federal, State & Local Agencies
- Construction, Mining, Agriculture
- Excavation & Demolition
- Utility Construction
- Concrete & Asphalt Paving

- Helps Eliminate Dry Start Wear
- Helps Prevent Seals from Leaking
- Prevents Rust and Corrosion
- Displaces Water for Easy Drainage
- Controls Foaming
- Lowers Operating Temperature and Resists Oxidation to Prolong Oil Life

Meets or Exceeds the Following Performance Requirements:
- All API GL-3, GL-4 (most GL-1 and GL-2 applications)
- DIN 51517 Part 3
- David Brown S1.53.101
- Cincinnati Milacron P-59
- US Steel #224
- AGMA 9005, 215.02 and 250.04
- AGMA 4EP to 8EP

USDA H2

Wide temperature range - operates from -7°C to 135°C.
CERTOP INDUSTRIAL contains a total additive package that sets it apart from other gear oils

Additives | User Benefits
---|---
Premium Grade Base Oil | Superior grade, highly-refined base oil resists oxidation and high-temperature breakdown to maintain better lubricity.
Adhesive and Cohesive Polymers, Tackiness Agents | Keep oil on gears during high-speed operations and during idle periods. Helps prevent mechanical wear, stress fractures and dry starts.
Rust and Corrosion Inhibitors | Blocks out corrosive elements such as acids, water, condensate and steam by forming a protective barrier on equipment surfaces to prevent chemical wear.
Extreme Pressure (EP) Agents | Heat seeking additive which increases the ability of the lubricant to prevent the extreme wear that can occur under loads.
Oxidation Inhibitors | Extends service life of the lubricant by retarding the oxidation or breakdown process.
Shock Load Reducers | Cushions impact to minimize the stress, vibration and chatter that can occur under heavy loads and during start-stop operations.
Anti-Wear Agents | Forms a lubricant film on metal surfaces in the presence of heavy loads and high temperatures. Prevents cold welding.
Friction Reducers | Plates out on metal surfaces to prevent friction and wear under heavy loads.
Anti-Foam Agents | Withstand agitation and heat without forming foam contaminants. Reduce pressure levels on seals and vents.

**PHYSICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Properties</th>
<th>ISO 220</th>
<th>ISO 320</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>yellow</td>
<td>yellow</td>
</tr>
<tr>
<td>API Gravity:</td>
<td>29.3</td>
<td>27.85</td>
</tr>
<tr>
<td>Flash Point (COC):</td>
<td>450</td>
<td>450</td>
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<tr>
<td>Pour Point, °F:</td>
<td>15</td>
<td>15</td>
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<tr>
<td>Viscosity Index:</td>
<td>102</td>
<td>107</td>
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<tr>
<td>Kinematic Viscosity, CST @ 40°C:</td>
<td>220.85</td>
<td>291.45</td>
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<td>Kinematic Viscosity, CST @ 100°C:</td>
<td>20.94</td>
<td>25.58</td>
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<tr>
<td>Rust Protection:</td>
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<td>Pass</td>
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<td>Corrosion Protection:</td>
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<tr>
<td>4-Ball Wear Scar Dia., mm</td>
<td>0.32</td>
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<tr>
<td>4-Ball Weld Load, kg</td>
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<td>250</td>
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<tr>
<td>Timkin OK Load, lbs.</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>

**IDEAL FOR USE IN:**
Oil filled bearings, gear boxes including enclosed gears of spur type, hypoid, spiral bevel, worm, herringbone, helical, planetary and unusual combinations of gear types. Can be used as a cylinder oil, except for steam cylinders. Can be added as make up oil to other Industrial grade mineral gear oils. For Bronze Gears use CERTOP Industrial 460 & 680 only.

**DO NOT USE FOR:**
Do not use CERTOP 220, 320 for copper, bronze worm gears (use CERTOP Industrial 460 or 680).