



## Mobil Cylinder Oils

### Gear and Cylinder Oils



#### Product Description

Mobil Cylinder oils are high performance high viscosity oils designed for use in enclosed worm gears operating at moderate to high speeds and temperatures, and where heavy loads, slow speeds or high temperatures demand high viscosity oils. They are also intended for use in steam engine cylinder applications. They are formulated from high quality base stocks that are resistant to oxidation and thermal degradation, and the build-up of harmful deposits caused by the high operating temperatures of steam cylinders. They protect against rust and corrosion and provide good film strength and excellent lubricity and they are resistant to water washout.

Mobil 600W™ Cylinder Oil, Mobil 600W™ Super Cylinder Oil and Mobil™ Extra Hecla Super Cylinder Oil are additized to enhance their frictional and load-carrying properties. All four members of the product family are widely used in worm gear applications, couplings and bearings, with viscosity grade depending on operating conditions. In steam applications Mobil 600W Super Cylinder Oil is recommended for saturated and superheated steam up to a temperature of 260°C. Mobil Extra Hecla Super Cylinder Oil and Mobil Extra Hecla Super Cylinder Oil Mineral may be used with superheated steam above 260°C. Mobil Extra Hecla Super Cylinder Oil Mineral has good demulsibility. Mobil Cylinder Oils can be applied both by drip feed cups and force feed mechanical lubricating devices.

#### Features and Benefits

Mobil Cylinder Oils offer the following features and potential benefits:

| Features   | Advantages and Potential Benefits  |
|--|--|
| Excellent film integrity at high temperatures                  | Excellent equipment protection at high temperatures occasioned by variable load conditions, avoiding unexpected downtime and equipment replacement |
|  | Provision of good sealing film round rods and in glands in steam applications  |
| Excellent resistance to deposit formation at high temperatures | Resistant to deposits on areas subject to high spot temperatures, maintaining cleaner systems, requiring less maintenance                          |
| Excellent anti-wear and low friction properties                | Additized grades give reduced wear   |
| Very good water separation in absence of additives             | Non-additized grade gives ready separation from condensate   |
| High quality and built in performance features                 | Results in fewer unplanned stoppages and reduced maintenance costs   |

#### Applications

Mobil 600W Cylinder Oil is recommended for the following applications:

- The splash lubrication of enclosed worm gears operating at moderate to high speeds and temperatures. (Mobil 600 W Cylinder Oil)
- Steam cylinders, couplings, bearings, and break-in of compressor cylinders (Mobil 600 W Cylinder Oil)
- Mobil 600W Super Cylinder Oil and Mobil Extra Hecla Super Cylinder Oil are recommended for the above

applications but under higher temperature and load conditions

- Mobil Extra Hecla Super Cylinder Mineral is recommended where ready separation from condensate is essential, for example, where exhaust steam is used for process work
- Mobil Extra Hecla Super Cylinder Mineral may also be used as a tempering oil for bath temperatures up to 290C

## Typical Properties

| Mobil Cylinder Oils                                  | Mobil 600 W<br>Cylinder Oil | Mobil 600 W<br>Super Cylinder<br>Oil | Mobil Extra Hecla<br>Super Cylinder<br>Oil | Mobil Extra Hecla<br>Super Cylinder<br>Oil Mineral |
|--|-----------------------------|--------------------------------------|--|--|
| ISO Viscosity Grade                                  | --                          | 460                                  | 680  | 1000   |
| Viscosity, ASTM D 445                                |                             |                                      |  |  |
| cSt @ 40°C   | 375                         | 460                                  | 680  | 1000   |
| cSt @ 100°C  | 28.0                        | 30.5                                 | 35.8                                       | 42.0   |
| Viscosity Index, ASTM D 2270                         | 95                          | 95                                   | 85   | 80   |
| Pour Point, °C, ASTM D 97                            | -9                          | -6                                   | 0  | 3  |
| Flash Point, °C, ASTM D 92                           | 282                         | 282                                  | 282  | 288  |
| Density, ASTM D4052 @15.6° C kg/l,                   | 0.90                        | 0.91                                 | 0.92                                       | 0.92   |
| Copper Strip Corrosion, ASTM D 130,3 hrs @<br>100° C | 1B                          | 1B                                   | 1B   | 1B   |

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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