



ISO VG 32, 46, 68, 100

# **Product Description**

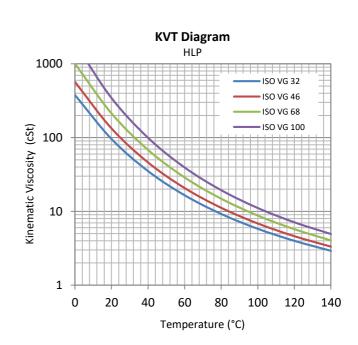
High performance hydraulic fluids formulated with anti-wear and anti-oxidation additives. HLP provides satisfied protection and maintains efficiency in hydraulic system.

#### **Benefits**

- Good wear and corrosion protection helps extend component life, enable long oil and filter life.
- Good thermal and oxidation stability helps reduce deposit and provide system cleanliness resulting in cost and maintenance downtime reduction.

### **Applications**

- Suitable for use in general hydraulic systems that frequent routine oil top-up is preferable.
- Recommended for use in light or moderate duty applications.



The Moving Innovation





ISO VG 32, 46, 68, 100

| Typical C                     | haracteristics |             |                   |         |        |        |        |
|-------------------------------|----------------|-------------|-------------------|---------|--------|--------|--------|
| Tests                         |                | Methods     | Units             | Results |        |        |        |
|                               |                |             |                   | 32      | 46     | 68     | 100    |
| Kinematic Viscosity at 40 °C  |                | ASTM D 445  | mm²/s             | 32.05   | 45.92  | 68.08  | 99.21  |
| Kinematic Viscosity at 100 °C |                | ASTM D 445  | mm²/s             | 5.446   | 6.848  | 8.776  | 11.10  |
| Viscosity Index               |                | ASTM D 2270 |                   | 104     | 101    | 101    | 97     |
| Density at 15 °C              |                | ASTM D 4052 | g/cm <sup>3</sup> | 0.8697  | 0.8753 | 0.8810 | 0.8861 |
| Flash Point (COC)             |                | ASTM D 92   | °C                | 236     | 240    | 248    | 270    |
| Pour Point                    |                | ASTM D 97   | °C                | -9      | -9     | -6     | -6     |
| Copper Strip Corrosion        |                | ASTM D 130  |                   | 1a      | 1a     | 1a     | 1a     |
| Foaming                       | Seq. I         | ASTM D 892  | ml/ml             | 0/0     | 5/0    | 5/0    | 5/0    |
|                               | Seq. II        | ASTM D 892  | ml/ml             | 0/0     | 20/0   | 20/0   | 0/0    |
|                               | Seq. III       | ASTM D 892  | ml/ml             | 0/0     | 5/0    | 10/0   | 5/0    |
|                               |                |             |                   |         |        |        |        |

# **Performance Standards**

- Denison HF-2
- Eaton Vickers I-286-S
- DIN 51524 Part 2 HLP Type
- ISO 11158 Category HM

# **Health and Safety**

This product shows no significant health or safety hazard when used under the recommended applications and suitable handling.

Avoid the direct contact. Wash immediately after contact. Health and safety information is available on the Safety Data Sheet (SDS) which can be obtained from http://pttlubricants.pttor.com





Note: Data and information contained in this publication are based on standard test under laboratory conditions and/or performance test. To consider the use of PTT Lubricants' products in particular application, customer is responsible for determining whether product and information are appropriate for customer conditions or should consult with PTT Lubricants' technical service division. The procedure of using any lubricant may differ or change depended on different machines and their manuals. Therefore, we recommend to read, understand and review the latest SDS in order to ensure the use of product is accomplished safety.

The Moving Innovation