



TO-4 HD FULLY SYNTHETIC

PRODUCT DESCRIPTION:

TO-4 HD is engineered for power shift transmissions, final drives, and wet brakes on heavy-duty off-highway equipment in earthmoving, mining, logging, road transport, and agricultural applications. It is blended from premium quality base oils and proven performance additives.

APPLICATION:

TO-4 HD is specifically designed to meet the performance requirements of caterpillar TO-4, Komatsu power shift transmissions, ZF torque converter transmissions and Allison C-4 automatic transmission. It is also used for heavy duty manual transmissions, gear boxes, final drives and hydraulic systems used in off highway equipment. Recommended for industrial torque converters and hydraulic systems where such type of fluids is specified.

FEATURES & BENEFITS:

- Good compatibility with all common seals, O rings, packing materials and clutch materials that leads to reduced downtime.
- Good low temperature fluidity.
- Quick start up of equipment.
- Excellent oxidation resistance and thermal stability for long fluid life.
- Protects against sludge and varnish formation.
- Protects against wear.
- Protects against rust and corrosion
- High shear stability
- Foam resistance

PERFORMANCE LEVELS: Meets and Exceeds:

- Caterpillar TO-4
- Allison TES 439
- Komatsu KES 07.868.1
- Allison C-4
- ZF TE-ML-03C
- API GL-4

TYPICAL PROPERTIES:

| PARAMETERS | TEST METHOD | UNIT | TO-4 HD | | | |
|------------------------------------|-------------|-------|---------|------|------|------|
| | | | 10W | 30 | 50 | 60 |
| Grade | | | 10W | 30 | 50 | 60 |
| Kinematic Viscosity @ 104°F /40°C | ASTM D-7042 | cSt | TBR | TBR | TBR | TBR |
| Kinematic Viscosity @ 212°F /100°C | ASTM D-7042 | cSt | 5.5 | 11.0 | 19.5 | 26.0 |
| Viscosity Index | ASTM D-2270 | - | 117 | 90 | 101 | 103 |
| Density @15°C/ 60°F | ASTM D-4052 | g/cm3 | TBR | TBR | TBR | TBR |
| Flash Point (min) | ASTM D-92 | °C | 220 | 240 | 254 | 270 |
| Pour Point (max) | ASTM D-97 | °C | -36 | -15 | -15 | -15 |

DISCLAIMER:

The test data mentioned above is not a definitive specification but serves as an indication and may fluctuate within acceptable production tolerances. Venom retains the right to alter this test data. Any updated information will replace previous versions, so please consult the latest Technical Data Sheet (TDS).

HEALTH & SAFETY, ENVIRONMENT:

Extended and repeated exposure to oil can lead to skin conditions. Please avoid contact. If you do come into contact with oil, wash the affected area immediately with soap and water. Do not dispose of used oil down drains or into the environment; instead, take it to an authorized used oil collection point.

HEALTH & SAFETY:

This product is unlikely to pose significant health or safety risks when used properly in the recommended application and with good personal hygiene practices. For more information, please refer to the Safety Data Sheet (SDS), which is available upon request from your local sales office.

PROTECT THE ENVIRONMENT:

Please take used oil to an authorized collection point and adhere to local regulations. Do not discharge it into drains, soil, or water.

STORAGE:

We recommend storing all packages in a covered area. If outdoor storage is necessary, drums should be positioned horizontally to prevent water ingress and protect the markings. Products should never be stored above 60°C or exposed to direct sunlight or freezing temperatures.