



GT-1[®] Endurance Motor Oil with Liquid Titanium[®]

Kendall® GT-1® Endurance Motor Oil with Liquid Titanium® protection additive is a premium quality, part-synthetic automotive engine oil specially designed to provide excellent engine protection for both turbocharged gasoline directinjection, conventional gasoline-fueled and flex-fueled passenger cars and light trucks under all operating conditions with more than 75,000 miles. It also is recommended for use in lower-mileage vehicles, including new cars under warranty.

GT-1 Endurance Motor Oil with Liquid Titanium is formulated with a blend of synthetic and conventional base stocks, a proprietary seal conditioner, and a performance additive package fortified with our exclusive Liquid Titanium protection additive for extra wear protection and improved fuel savings. The part-synthetic formulation provides enhanced protection against viscosity breakdown and the formation of sludge and varnish compared with conventional engine oils. Our proprietary SealMax® seal conditioner helps recondition and revitalize engine seals, thereby helping to reduce oil consumption, minimize driveway leaks and reduce exhaust smoke. Our Liquid Titanium protection additive provides increased engine protection by forming a strongly bonded titanium shield on the surface of critical engine parts, which reduces friction and wear and can help extend engine life. Reduced friction also helps improve fuel economy performance beyond ILSAC GF-5 requirements. These performance benefits help to maximize engine performance and extend engine life in high-mileage vehicles, while also providing excellent engine protection in newer vehicles.

GT-1 Endurance Motor Oil with Liquid Titanium (except SAE 10W-40) meets new car warranty requirements as defined by ILSAC GF-5. It is uniquely formulated to help combat low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines. It meets or exceeds "Resource Conserving" requirements for fuel economy improvement, emission system and turbocharger protection, and protection of engines operating on ethanol-containing fuels up to E85. It is backward serviceable for use where API SN or earlier "S" category engine oils are recommended.

Applications

 Turbocharged gasoline direct-injection, conventional gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions especially those with more than 75,000 miles

GT-1[®] Endurance Motor Oil with Liquid Titanium[®] is licensed for:

- ILSAC GF-5 (SAE 5W-20, 5W-30, 10W-30)
- API Service SN Plus with Resource Conserving (SAE 5W-20, 5W-30, 10W-30)
- API Service SN Plus (SAE 10W-40)

Synthetic Blend
Passenger Car
Engine Oil for
High Mileage
Vehicles;
Formulated with
SealMax® and
Liquid Titanium®
Protection
Additive



GT-1® Endurance Motor Oil with Liquid Titanium® meets or exceeds the requirements of:

- Chrysler MS-6395 (Rev. T) (except SAE 10W-40)
- Ford WSS-M2C945-B1 (SAE 5W-20), WSS-M2C946-B1 (SAE 5W-30)
- GM6094M (obsolete specification)

Features/Benefits

- Meets ILSAC GF-5 requirements for new cars under warranty (except SAE 10W-40)
- Part-synthetic formulation provides enhanced protection against deposit formation and oil thickening, compared with conventional engine oils
- Exclusive Liquid Titanium® protection additive provides extra wear protection and improved fuel economy
- Proprietary SealMax[®] seal conditioner helps recondition and revitalize engine seals to reduce oil consumption and leaks
- Protects against rust and bearing corrosion
- Low volatility for reduced oil consumption
- Excellent low-temperature pumpability for protection during cold starts
- · Highly resistant to foaming
- Helps maximize engine performance and minimize exhaust smoke
- Formulated to protect turbochargers and emissions control system catalysts
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85

GT-1° Endurance Motor Oil with Liquid Titanium®

| Typical Properties | | | | |
|--|-----------|-----------|-----------|-----------|
| SAE Grade | 5W-20 | 5W-30 | 10W-30 | 10W-40 |
| Specific Gravity @ 60°F | 0.863 | 0.861 | 0.867 | 0.870 |
| Density, lbs/gal @ 60°F | 7.18 | 7.17 | 7.22 | 7.24 |
| Color, ASTM D1500 | 3.0 | 3.0 | 3.0 | 3.0 |
| Flash Point (COC), °C (°F) | 218 (424) | 216 (421) | 229 (444) | 227 (441) |
| Pour Point, °C (°F) | -39 (-38) | -39 (-38) | -39 (-38) | -36 (-33) |
| Viscosity, Kinematic | | | | |
| cSt @ 40°C | 49.9 | 67.0 | 65.7 | 111 |
| cSt @ 100°C | 8.6 | 10.8 | 10.5 | 15.8 |
| Viscosity Index | 150 | 152 | 148 | 151 |
| Cold Cranking Viscosity, cP | 6,150 | 6,150 | 4,550 | 6,900 |
| @ (°C) | (-30) | (-30) | (-25) | (-25) |
| High-Temp/High-Shear Viscosity, cP @ 150°C | 2.6 | 3.1 | 3.0 | 3.9 |
| Sulfated Ash, ASTM D874, wt % | 0.96 | 0.96 | 0.96 | 0.96 |
| Total Base Number (TBN), ASTM D2896 | 8.0 | 8.0 | 8.0 | 8.0 |
| Phosphorus, wt % | 0.077 | 0.077 | 0.077 | 0.077 |
| Titanium, wt % | 0.010 | 0.010 | 0.010 | 0.010 |
| Zinc, wt % | 0.085 | 0.085 | 0.085 | 0.085 |

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via http://www.phillips66.com/SDS.

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