



TECHNICAL DATA SHEET

High Performance Motor Oil

PRODUCT DESCRIPTION

Royal Purple® High Performance Motor Oils combine premium synthetic base oils with advanced additive technologies to exceed protection and performance requirements for automotive gasoline engines. The premium synthetic formulation delivers excellent oxidation stability and low volatility properties for maintaining a consistent oil viscosity to reduce engine component wear. Advanced detergents optimize engine power and efficiency by removing deposits and providing aggressive resistance to sludge formation and varnish deposits. Royal Purple High Performance Motor Oils are formulated for modern Gasoline Direct Injection (GDI) engines to provide unsurpassed protection against LSPI (Low Speed Pre-Ignition). Low coefficient of friction and anti-wear are balanced to achieve optimal fuel economy, increased engine power output, and maximum engine wear protection in demanding and harsh applications. Royal Purple High Performance Motor Oils meet or exceed the requirements of API SQ Resource Conserving and ILSAC GF-7A specifications, and the GM dexos™1 requirements for 0W-20 and 5W-30 viscosity grades.

FEATURES and BENEFITS

- 53% BETTER OXIDATION RESISTANCE[^] – Maximum protection from oil breakdown to maintain a consistent oil viscosity, which reduces engine component wear and the risk for oil starvation
- 26% IMPROVED DEPOSIT CONTROL[^] – Robust detergents remove power robbing deposits to maintain peak engine power, performance, and efficiency
- 18% ENHANCED SLUDGE PROTECTION[^] – Cleaner engines operate more efficiently, lowering operating temperatures and prolonging oil life
- 43% BETTER WEAR PROTECTION[^] – Enhanced additive technology prevents metal-to-metal contact beyond ILSAC GF-7 requirements to provide maximum engine component wear protection
- 5X INCREASED PROTECTION AGAINST LOW SPEED PRE-IGNITION (LSPI)[^] – Advanced additive chemistry reduces LSPI in turbocharged Gasoline Direct Injection (GDI) engines to protect engine components and maximize engine life
- INCREASED FUEL EFFICIENCY – A low coefficient of friction results in optimized fuel economy
- SUPERIOR BEARING CORROSION PROTECTION – Formulated to provide superior bearing protection

[^]Comparisons based on API SQ, ILSAC GF-7 requirements, and/or dexos™1 Gen3

APPLICATIONS

Royal Purple High Performance Motor Oils are recommended for gasoline engines in passenger cars, SUVs, light vans, and light trucks. The applications include GDI, multi-valve fuel injected, carbureted, turbocharged, and supercharged engines, and those needing to meet dexos™1 Gen 3 requirements.

Distributed By:

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SPECIFICATIONS and APPROVALS

| | 0W-20 | 5W-20 | 5W-30 | 10W-30 |
|-----------------------------|-------|-------|-------|--------|
| API SQ Resource Conserving* | X | X | X | X |
| ILSAC GF-7A* | X | X | X | X |
| dexos™1 Gen 3 | X | | X | |
| Chrysler MS-6395 | ● | ● | ● | ● |
| Ford WSS-M2C972-A1 | ● | | ● | |
| Ford WSS-M2C970-A1 | | ● | | |
| Ford WSS-M2C971-A1 | | | ● | |
| GM 6094M | | | | ● |

X - Formally licensed / registered

● - Recommended for use / meets requirements

*Backwards compatible with prior requirements

PRODUCT DATA

| Typical Properties | | | | | |
|--------------------------|-------------|---------------|---------------|---------------|---------------|
| Property | Test Method | 0W-20 | 5W-20 | 5W-30 | 10W-30 |
| Viscosity @ 40°C, cSt | ASTM D445 | 45.9 | 45.2 | 60.2 | 66.8 |
| Viscosity @ 100°C, cSt | ASTM D445 | 8.6 | 8.2 | 10.5 | 10.9 |
| Viscosity Index | ASTM D2270 | 168 | 156 | 163 | 154 |
| Cold Crank Simulator, cP | ASTM D5293 | 5,950 @ -35°C | 4,335 @ -30°C | 6,009 @ -30°C | 4,188 @ -25°C |
| HTHS @ 150°C, cP | ASTM D5481 | 2.6 | 2.7 | 3.2 | 3.2 |
| Pour Point, °C (°F) | ASTM D97 | -42 (-44) | -42 (-49) | -44 (-47) | -39 (-38) |
| Flash Point, °C (°F) | ASTM D92 | 232 (450) | 226 (440) | 232 (450) | 232 (450) |
| Density @ 15°C, g/mL | ASTM D4052 | 0.8478 | 0.8505 | 0.8555 | 0.8502 |

HEALTH and SAFETY

Health and safety recommendations for products can be found on the Safety Data Sheet (SDS) www.royalpurple.com

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