

TECHNICAL DATA SHEET

High Performance Motor Oil

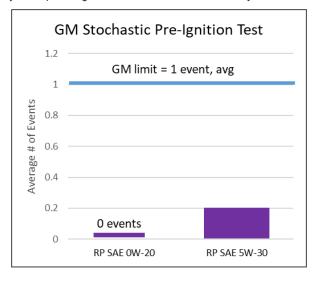
API LICENSED MOTOR OIL

Royal Purple® High Performance Motor Oil combines premium base oils with proprietary additive technologies to create a high-performance synthetic engine oil that optimizes performance and protection. Royal Purple® High Performance Motor Oils carry the current

API and ILSAC engine oil licenses, as well as the GM dexos[™]1 gasoline engine oil approval.

ILSAC GF-6 AND GM DEXOS™1

Modern gasoline direct injection (GDI) engines have achieved levels of power and fuel economy never before possible in passenger car engines. As a result, smaller engines operate at much higher loads across all engine speeds. This has caused increased wear in critical areas of the engine, and created a destructive phenomenon called low-speed pre-ignition (LSPI). The unique, state-of-the-art additive technology in Royal Purple High Performance engine oils is designed specifically to address these issues, and help engines maintain performance and reliability.



PERFORMANCE ADVANTAGES

- BETTER WEAR PROTECTION Enhanced additive technology prevents metal-to-metal contact beyond both GM dexos[™]1 and ILSAC GF-6A specs
- INCREASED PROTECTION AGAINST LSPI Advanced additive chemistry helps reduce Low Speed Pre-Ignition in today's turbocharged Gasoline Direct Injection engines.
- INCREASED FUEL EFFICIENCY A low coefficient of friction results in optimized fuel efficiency (our 5W-30 meets the fuel economy requirements of a 0W-20 oil; our 0W-20 meets fuel economy requirements of a 0W-16)
- BETTER PROTECTION FOR VEHICLE EXHAUST EMISSIONS EQUIPMENT Patented anti-wear additive chemistry minimizes the harmful effects exhaust gases pose to the catalyst
- IMPROVED COMPATIBILITY WITH FUELS CONTAINING ETHANOL Patented additive technology prevents the white sludge and lubrication starvation that can occur with higher concentration gasoline-ethanol blends
- SUPERIOR CORROSION PROTECTION No rust observed in standard industry testing

To the best of our knowledge, the information contained herein is accurate, but is given without warranty or guarantee. We assume no liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any information or material for the use contemplated, the name of use and whether there is any infringement of patents is the sole responsibility of the user.



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OEM SPECIFICATIONS

SAE 0W-20: Licensed and approved GM dexosTM1-Gen 3, API SP Resource Conserving and ILSAC GF-6A

Meets Chrysler FCA US MS-6395, Ford WSS-M2C962-A specifications

SAE 5W-20: Licensed API SP Resource Conserving and ILSAC GF-6A

Meets Chrysler FCA US MS-6395, Ford WSS-M2C960-A specifications

SAE 5W-30: Licensed and approved GM dexos[™]1-Gen 3, API SP Resource Conserving and ILSAC GF-6A

Meets Chrysler FCA US MS-6395, Ford WSS-M2C961-A specifications

SAE 10W-30: Licensed API SP Resource Conserving and ILSAC GF-6A

Meets Chrysler FCA US MS-6395, GM 6094M specifications

| Typical Physical Properties | | | | | |
|-----------------------------|--------------------|--------------|--------------|--------------|--------------|
| Property | Test Method | 0W-20 | 5W-20 | 5W-30 | 10W-30 |
| Viscosity @ 40°C, cSt | ASTM D445 | 45.8 | 46.1 | 62.4 | 61.6 |
| Viscosity @ 100°C, cSt | ASTM D445 | 8.6 | 8.2 | 10.5 | 10.1 |
| Viscosity Index | ASTM D2270 | 168 | 153 | 159 | 150 |
| Cold Crank Simulator, cP | ASTM D5293 | 5,729 @-35°C | 4,487 @-30°C | 5,719 @-30°C | 3,637 @-25°C |
| HTHS, @150°C, cP | ASTM D5481 | 2.7 | 2.6 | 3.1 | 3.2 |
| Flash Point, °C (°F) | ASTM D92 | 232 (450) | 227 (440) | 238 (460) | 243 (470) |
| Pour Point, °C (°F) | ASTM D97 | -47 (-53) | -48 (-54) | -45 (-49) | -45 (-49) |
| TBN, mg KOH | ASTM D2896 | 8.9 | 8.9 | 8.6 | 8.7 |