



TECHNICAL DATA SHEET

HPS®

HIGH PERFORMANCE STREET MOTOR OIL

Royal Purple® HPS® series engine oils are specifically formulated to meet the demands of vintage, late-model, and modified high-performance engines. Whether the challenge is increased valve-train load due to aggressive camshafts, or big engine power because of forced-induction or other power adders, HPS provides more than enough protection for the most severe street car and light competition applications. Royal Purple® HPS® oils are fortified with a high level of zinc / phosphorus anti-wear additive and a generous dose Synerlec®.

Synerlec® is Royal Purple's proprietary additive chemistry that greatly increases the protective film strength of the oil, reducing metal to metal contact, friction and wear. This unique and highly effective additive technology greatly enhances wear protection above and beyond that achievable in any other commercially available engine oil. Synerlec® also increases the oil's resistance to thermal degradation, enhancing lubrication at extreme engine temperatures, reducing deposit formation and lengthening the oil's useful life.

The oxidation resistance, synthetic solvency and varnish control contribute to incredible cleanliness inside the engine. These unique formulations enable HPS oils to outperform leading synthetic and conventional lubricants in both gasoline and diesel engines. All HPS viscosities are formulated for gasoline and diesel engine use, including those that are turbocharged or supercharged. As a performance-upgrade engine oil, HPS is recommended for vehicles no longer under manufacturer warranty, and for those seeking a higher level of performance and protection for any engine. HPS meets ACEA E9-16 performance requirements.

Royal Purple HPS engine oils are recommended for use in any automotive engine. This engine oil is the best choice in street engine oils for stock performance cars, highly modified vehicles, dual-use street/strip cars, or completely stock daily drivers. HPS is formulated to provide a greater level of protection for the engine, rather than conforming to chemistry restrictions that ultimately compromise the ultimate performance of the engine oil.

PERFORMANCE ADVANTAGES

- **OUTSTANDING WEAR PROTECTION** – Protection against engine wear that is unmatched by any other street engine oil
- **INCREASED POWER** – Greater lubricity and low coefficient of friction plus better piston ring seal results in more power to the wheels
- **EXCEPTIONAL OXIDATION STABILITY** - Extends oil life, allows for more miles driven between oil changes
- **SUPERIOR HIGH-TEMP. PERFORMANCE** - Synthetic base oils and **Synerlec®** technology resist thermal degradation
- **GREATER CLEANLINESS** - Advanced synthetic solvency reduces engine deposits and keeps engines clean
- **INCREASED ENGINE PROTECTION** - Reduces Low Speed Pre-Ignition (LSPI) in turbocharged Gasoline Direct Injection (GDI) engines



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Typical Physical Properties						
Property	Test Method	5W-20	5W-30	10W-30	10W-40	20W-50
Viscosity @ 40°C, cSt	ASTM D445	43.9	46.4	56.3	70.4	122.2
Viscosity @ 100°C, cSt	ASTM D445	8.6	11.09	10.88	13.36	18.06
Viscosity Index	ASTM D2270	173	191	189	192	164
Cold Crank Simulator, cP	ASTM D5293	4,060 @-30°C	5,480 @-30°C	3,608 @-25°C	4,971 @-25°C	5,027 @-15°C
HTHS, @150°C, cP	ASTM D5481	2.7	3.8	3.8	4.4	5.2
Flash Point, °C (°F)	ASTM D92	216 (420)	224 (436)	213 (416)	218 (424)	224 (436)
Pour Point, °C (°F)	ASTM D97	-48 (-54)	-44 (-48)	-48 (-54)	-48 (-54)	-45 (-49)
TBN, mg KOH	ASTM D2896	9.7	9.7	9.7	9.9	9.6

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