

HPS® HIGH PERFORMANCE STREET MOTOR OIL



AVAILABLE PACKAGE SIZES



MULTI-GRADE OILS

5W-20, 5W-30, 10W-30, 10W-40 & 20W-50

All HPS viscosities are formulated for gasoline and diesel engine use.

Royal Purple® HPS® Series motor oil is specifically formulated to maximize performance and meet the demands of high performance and modified engines. HPS is recommended for vehicles no longer under manufacturer warranty and for those seeking a higher level of performance and protection.

Royal Purple HPS oils are fortified with a high level of zinc / phosphorus anti-wear additive and a generous dose of Royal Purple's proprietary Synerlec® additive technology. These unique formulations enable HPS oils to outperform leading synthetic and conventional lubricants in both gasoline and diesel engines. HPS meets ACEA E9-16.

PERFORMANCE ADVANTAGES

- + Exceptionally high film strength for dramatic reductions in engine wear and reduced engine heat to extend the life of your engine
- + Advanced additive chemistry helps reduce Low Speed Pre-Ignition in today's turbocharged Gasoline Direct Injection engines
- + Improved sealing between the piston ring and cylinder wall maximizes horsepower and torque and optimizes fuel economy
- + Exceptional oxidation stability extends oil life and allows for more miles driven between oil changes saving you time and money
- + Advanced synthetic solvency reduces engine deposits and keeps engines clean
- + Outstanding wear protection for valve train components, including performance roller lifter and high lift flat tappet camshafts and lifters
- + Superior corrosion protection

HPS — TYPICAL PROPERTIES*

ASTM TESTS		SAE GRADE				
		5W-20	5W-30	10W-30	10W-40	20W-50
D445	Viscosity					
	cSt @ 40 °C	43.51	56.25	57.66	71.25	127.70
	cSt @ 100 °C	8.39	11.03	10.97	13.08	18.52
D2270	Viscosity Index	173	193	186	188	163
D5293	Cold Crank Simulator					
	cP @ -30 °C	3,758	5,127	—	—	—
	cP @ -25 °C	—	—	3,782	5,272	—
	cP @ -15 °C	—	—	—	—	5,067
D2896	TBN, mg KOH/g	10.3	10.1	10.8	9.9	10.1
D97	Pour Point °C (°F)	-51 (-60)	-51 (-60)	-48 (-54)	-48 (-54)	-45 (-49)
D92	Flash Point °C (°F)	232 (450)	216 (420)	232 (450)	229 (445)	229 (445)
D6278	Shear Stability % Loss @ 100 °C	1.89	1.98	3.61	3.21	2.77

*Properties are typical and may vary.

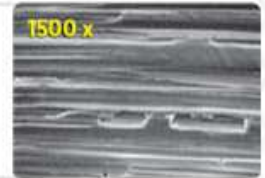
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HPS PART NUMBERS

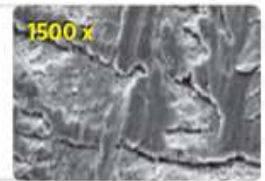
VISCOSITY	PACKAGE SIZE	ITEM NO.	MATERIAL NO.
5W-20	55-Gal. Drum	37520	301072175008
	6 x 1-Qt. Case	36520	301072175115
	1-Qt. Bottle	31520	
5W-30	55-Gal. Drum	37530	301150175008
	5-Gal. Pail	35530	301150175017
	6 x 1-Qt. Case	36530	301150175115
	1-Qt. Bottle	31530	
10W-30	5-Gal. Pail	35130	301899175017
	6 x 1-Qt. Case	36130	301899175115
	1-Qt. Bottle	31130	
10W-40	55-Gal. Drum	37140	301901175008
	5-Gal. Pail	35140	301901175017
	6 x 1-Qt. Case	36140	301901175115
	1-Qt. Bottle	31140	
20W-50	55-Gal. Drum	37250	301443175008
	6 x 1-Qt. Case	36250	301443175115
	1-Qt. Bottle	31250	

BEARING COMPARISON

A new bearing surface appears smooth until magnified 1500X.



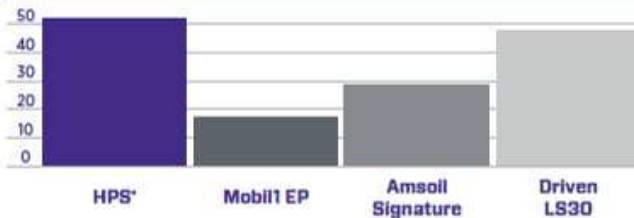
The bearing is scuffed after using a leading synthetic motor oil.



The bearing is visibly smoother after using Royal Purple HPS.



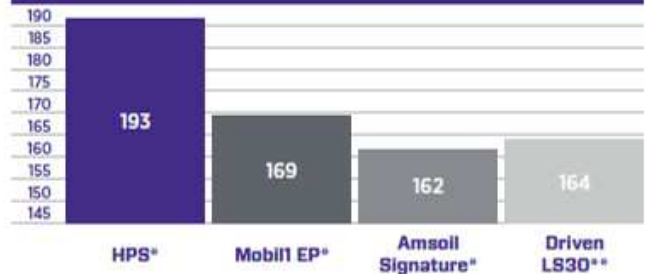
Film Strength (Max PSI) ASTM D-2782 (Comparative SAE 5W-30s)*



Film strength is the oil's ability to withstand a load without being displaced by pressure. Film strength is very important in areas designed to have full hydrodynamic lubrication (HDL) such as the crankshaft and rod/ main bearings. A lack of film strength leads to greater metal-to-metal contact and wear throughout the engine. High film strength is key in performance engines and/ or forced induction engines which see more severe operation and a higher rate of crank flex.

*Testing performed 2016-2019 by Southwest Research Institute.

Viscosity Index ASTM D-2270 (Comparative SAE 5W-30s)



Viscosity Index (VI) indicates the oil's change in viscosity with changing temperature, and is calculated using viscosity measurements at 40C and 100C. Less change in viscosity results in a higher VI. An oil with a higher viscosity index provides better lubricity and greater protection across all operating temperatures, thickening less when cold and thinning less when hot.

*Information gathered from manufacturers' websites. **Testing performed 2016-2019 by Southwest Research Institute

Shear Stability ASTM D-6278 (Comparative SAE 5W-30s)*



Shear stability is the oil's ability to resist permanent viscosity loss. Low quality base oils and/ or low quality VI polymers result in oils that can shear very quickly. This viscosity loss increases mechanical wear rates due to a thinner and weaker lubricant film between mating surfaces. Also, as the viscosity decreases, oil operating temperatures can rise due to decreased lubricity and greater metal contact, resulting in an increased rate of oxidation and overall degradation of the oil. Further, as the oil shears the added friction robs horsepower and efficiency.

*Testing performed 2016-2019 by Southwest Research Institute.

Anti-Wear Elements (Comparative SAE 5W-30s)*



Anti-wear additives are used to prevent metal-to-metal contact in areas where achieving a full fluid film of oil is not possible either due to excessive load or engine design. The camshaft(s) and lifters as well as piston skirts are key examples of areas relying heavily upon anti-wear metals. Performance engines, particularly, need higher quality and increased amounts of anti-wear additives due to greater loads on the camshaft caused by higher ramp rate camshafts and higher springs pressures.

*Testing performed 2016-2019 by Southwest Research Institute.