

## TECHNICAL DATA SHEET

# High Performance Motor Oil European Formula

#### PRODUCT DESCRIPTION

Royal Purple® High Performance Motor Oil European Formula is formulated exclusively with premium synthetic base stocks and advanced additive technology to deliver trusted engine protection and peak vehicle performance. The European Formula motor oils provide excellent resistance to sludge and varnish deposits during stop-and-go driving and other severe operating conditions. Premium synthetic formulation delivers excellent oxidation stability and low volatility properties, resulting in reduced oil consumption between services.

#### FEATURES and BENEFITS

- INCREASED FUEL EFFICIENCY A low coefficient of friction results in optimized fuel economy
- BETTER WEAR PROTECTION Wear protection beyond the requirements of current API and ACEA specifications
- SUPERIOR LOW-TEMPERATURE PERFORMANCE Low-temperature flow ensures lubrication and protection for cold starts
- EXCELLENT OXIDATION STABILITY Long lubricant life; meets or exceeds the oil change intervals for most European passenger cars and light-duty trucks
- OUTSTANDING ENGINE CLEANLINESS PERFORMANCE High-performance detergents that help minimize piston deposits and sludge buildup keeping engine internals clean

#### **APPLICATIONS**

Royal Purple High Performance Motor Oil European Formula is recommended for use in European passenger car gasoline/petrol engines, and light-duty diesel engines including turbocharged and direct injection diesel engines with a diesel particulate filter (DPF) and selective catalysts.



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## **SPECIFICATIONS and APPROVALS**

	0W-20	5W-30	0W-40	5W-40
API SP*	Х		Х	Χ
API SN*		Χ		
GM Dexos™D	Х			
ACEA A3/B4-21, 23			•	•
ACEA C3-12, 16, 21		•		
ACEA C5-16, 21, 23	•			
ACEA C6-21, 23	•			
BMW Longlife-01			•	•
BMW Longlife-04		•		
China GB11121	•			
Ford WSS-M2C952-A1	•			
Ford WSS-M2C937-A			•	
Jaguar/Land Rover STJLR.03.5006	•			
MB 226.5, MB 229.3, MB 229.5			•	•
MB 229.31, MB 229.51		•		
MB 229.71	•			
Opel OVO401547-A20	•			
Peugeot-Citroën PSA B71 2296				•
Porsche A40				•
Porsche C30		•		
Renault RN 0700				•
Renault RN 0710			•	•
VW 502.00, VW 505.00			•	•
VW 504.00, VW 507.00		•		

X - Formally licensed / registered

<sup>• -</sup> Recommended for use / meets requirements

<sup>\*</sup>Backwards compatible with prior requirements



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### **PRODUCT DATA**

Typical Properties							
Property	Test Method	0W-20	5W-30	0W-40	5W-40		
Viscosity @ 40°C, cSt	ASTM D445	41.1	67.9	64.4	77.8		
Viscosity @ 100°C, cSt	ASTM D445	8.0	11.8	12.9	13.5		
Viscosity Index	ASTM D2270	171	171	205	178		
Cold Crank Simulator, cP	ASTM D5293	4900 @ -35°C	6030 @ -30°C	5997 @ -35°C	5887 @ -30°C		
HTHS @ 150°C, cP	ASTM D5481	2.6	3.6	3.6	3.6		
Pour Point, °C (°F)	ASTM D97	-39 (-38)	-45 (-49)	-48 (-54)	-45 (-49)		
Flash Point, °C (°F)	ASTM D92	219 (426)	236 (456)	219 (426)	232 (450)		
Density @ 15°C, g/mL	ASTM D4052	0.8439	0.8522	0.8480	0.8536		

## **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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