PennGrade 1® Synthetic Blend High Performance Oils

Product Description

PennGrade 1® Synthetic Blend High Performance Oils are specially formulated using high quality, premium base stocks and select additive technologies to meet stringent lubricating demands of high performance, highly stressed street and racing engines.

PennGrade 1® Synthetic Blend High Performance Oils deliver excellent shock load and high temperature protection to heavily stressed engine parts including bearings, camshafts, rings, and pistons. They reduce internal friction for increased horsepower output while maintaining their strong lubricating film protection even under the most demanding torque and extreme temperature conditions. These high performance formulations also provide good anti-foaming and shear stability characteristics, excellent high temperature protection from thermal breakdown, outstanding film strength, and strong anti-wear properties.

PennGrade 1® Synthetic Blend High Performance Oils have a distinct green color and are available in (5) multi-grade viscosities to meet virtually all lubricating requirements of high-performance street and racing engines. The Partial Synthetic SAE 5W-30* is a low viscosity oil tailored to maximize horsepower in engines that use this type of engine oil and is ideally suited in today's street*/racing market 'crate engines' that require this viscosity. Additionally, the 5W-30 contains strong detergent, dispersant and ZDDP anti-wear additives to help protect critical engine parts.

PennGrade 1® Synthetic Blend High Performance Oils SAE 10W-30*, SAE 10W-40*, SAE 15W-40* and SAE 20W-50* are formulated with a typical TBN of 10.6 to provide a high level of detergency for protection against bearing corrosion and piston deposits in both turbocharged and non-turbocharged engines. These engine oils provide outstanding "heavy load" bearing protection on heavily stressed engine parts. The synthetic component of these engine oils enhances the protection afforded at high and low temperature extremes. The 10W-30, 10W-40, 15W-40 and 20W-50 also contain strong dispersant and ZDDP anti-wear additives to protect critical engine parts.

* Not recommended for use in vehicles equipped with catalytic converters

PENNGRADE® HIGH PERFORMANCE OIL

The Original Green Oil.

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Typical Properties

SAE Viscosity Grade	Test Method	5W-30	10W-30	10W-40	15W-40	20W-50
Viscosity @ 100°C, cSt @ 40°C, cSt	 ASTM D445 ASTM D445	 11.1 65.6	 10.8 68.6	 15.6 109	 15.5 113	 20 159
Viscosity Index	ASTM D2270	161	138	154	145	140
Pour Point, °F (°C)	ASTM D97	-43.6 (-42)	-27 (-33) (max)	-43.6 (-42)	-43.6 (-42)	-16.6 (-27) (max)
Flash Point, COC, °F (°C)	ASTM D92	395 (202)	400 (204)	400 (204)	400 (204)	420 (216)
Sulfated Ash, Weight %	ASTM D874	1.2	1.2	1.2	1.2	1.2
API Gravity	ASTM D4052	33	30	30.9	29.8	29
Density, lbs/gal (g/l)	Calculated	7.16 (858)	7.30 (875)	7.27	7.32	7.321 (880)
CCS, cP	ASTM D5293	6,200 @ (-30°C)	6,500 @ (-25°C)	6,300 @ (-25°C)	5050 @ (-20°C)	4,600 @ (-15°C)
MRV, cP	ASTM D4684	24,000 @ (-35°C)	26,700 @ (-30°C)	28,150 @ (-30°C)	21,175 @ (-25°C)	35,700 @ (-20°C)
HTHS Viscosity, cP @ 150°C	ASTM D4683	3.185	3.54	4.23	4.52	6.2
Zinc, Mass %	ASTM D6481	0.15	0.15	0.15	0.15	0.15
Phosphorous, Mass %	ASTM D6481	0.14	0.14	0.14	0.14	0.14
Color	ASTM D1500	Green	Green	Green	Green	Green
TBN	ASTM D2896	10.6	10.6	10.6	10.6	10.6

D-A Part Number:

Drum – 55 Gal	N/A	71502	71442	71582	71192
Case – 4/5 Qt	N/A	71500	71440	N/A	71190
Case – 12/1 Qt	71096	71506	71446	71586	71196

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