



Product Bulletin

PENN-GRADE 1[®] MONOGRADE HIGH PERFORMANCE OILS

BRAD PENN[®] PENN-GRADE 1[®] Monograde High Performance Oils are specially formulated using high quality PENN-GRADE[™] base stocks and select additive technologies to meet the stringent lubricating demands of high-performance, highly stressed, street and racing engines.

BRAD PENN[®] PENN-GRADE 1[®] Monograde 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 possess good antifoaming and shear stability characteristics, and offer excellent high temperature protection from thermal breakdown as well as strong anti-wear properties.

BRAD PENN[®] PENN-GRADE 1[®] Monograde High Performance Oils have a distinct green color and are available in four **monograde** viscosities to meet virtually all lubricating requirements of high performance street and racing engines. The **SAE 30**, **SAE 40**, **SAE 50** and “**Nitro**” **70** products are suitable for use in most naturally aspirated, turbocharged, or supercharged gasoline engines.

BRAD PENN[®] PENN-GRADE 1[®] SAE 30 and 40 Monograde High Performance Oils offer a typical TBN of 9.5 and 10.6 (SAE 30). They are fortified with an anti-wear agent proven to be highly effective in the regime of extremely stressed engines.

BRAD PENN[®] PENN-GRADE 1[®] “Nitro” 70 Monograde High Performance Oil is specifically formulated for gas, alcohol, and nitromethane fueled engines that experience extreme torque, load, and high temperature conditions. The **BRAD PENN[®] PENN-GRADE 1[®] SAE 50** is also suitable for use in gas, alcohol, and nitromethane fueled engines where this viscosity is desired. The initial high viscosity of these oils allows excessive dumping of fuel (“blow by”) into the lubricating fluid while maintaining critical protection for expensive, high performance racing engines and their components.



AMERICAN REFINING GROUP, INC.

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The following manufacturers endorse Penn Grade 1® High Performance Oils:

- *Koerner Racing Cams Tucson, AZ www.koernerracing.com*
- *Cam Motion, Inc. Baton Rouge, LA www.cammotion.com*
- *Howard Cams Oshkosh, WI www.howardscams.com*
- *Schneider Racing Cams San Diego, CA www.schneidercams.com*
- *Crower Cams San Diego, CA www.crower.com*
- *Crane Cams Daytona Beach, FL www.cranecams.com*

BRAD PENN®
PENN-GRADE 1® Monograde High Performance Oils - Typical Properties

SAE Grade	Test Method	30	40	50	70
API Gravity, 60°F	ASTM D-1298A	28.0	27.5	26.8	26.7
Density, lbs/gal (g/L)	Calculated	7.40 (887)	7.41 (888)	7.436 (891)	7.45 (892)
Viscosity, cSt @ 40°C	ASTM D-445	97	150	218.5	314.8
Viscosity, cSt @ 100°C	ASTM D-445	11.65	15.5	20.0	28.0
Viscosity, SUS @ 100°F	ASTM D-2161	504	785	1,150	1,660
Viscosity, SUS @ 210°F	ASTM D-2161	66.3	82	101	138
Viscosity Index	ASTM D-2270	118	108	106	114
Pour Point, °F (°C)	ASTM D-5949	-22 (-30)	0 (-18)	5 (-15)	20 (-6)
Flash Point, COC, °F (°C)	ASTM D-92	425 (218)	425 (218)	440 (227)	450 (232)
Zinc, Mass %	ASTM D-6481	0.150	0.150	0.150	0.150
Phosphorous	ASTM D-6481	0.140	0.140	0.140	0.140
Color	ASTM D-1500	Green	Green	Green	Green
TBN	ASTM D-2896	10.6	9.5	9.5	9.5
Sulfated Ash, mass %	ASTM D-874	1.2	1.0	1.0	1.0
Product Code		7139	7140	7115	7117