



# Product Bulletin

## *PENN-GRADE 1<sup>ä</sup>* RACING OILS

**BRAD PENN<sup>®</sup> *PENN-GRADE 1<sup>™</sup>* Racing Oils** are specially formulated using high quality *PENN-GRADE<sup>™</sup>* base stocks and select additive technologies to meet the stringent lubricating demands of high-performance, highly stressed, street and racing engines. They deliver excellent shock load and high temperature protection to heavily stressed engine parts including bearings, camshafts, rings, and pistons. They reduce internal friction allowing for increased horsepower output while maintaining their strong lubricating film protection even under the most demanding torque and extreme temperature conditions. These high performance racing formulations also provide excellent antifoaming and shear stability characteristics, exceptional high temperature protection from thermal breakdown, superior film strength, and strong antiwear properties.

**BRAD PENN<sup>®</sup> *PENN-GRADE 1<sup>™</sup>* Racing Oils** have a distinct green color and are available in four viscosity grades to meet virtually all lubricating requirements of high performance street and racing engines. The **Partial Synthetic SAE 10W-30** and **Partial Synthetic SAE 20W-50** can also be used in severe service conditions encountered by gasoline and diesel powered passenger cars, light-duty trucks, SUVs, and diesel trucks where an API SJ/CF quality engine oil is required. The **SAE 50** and **SAE "Nitro" 70** products are suitable for use in most naturally aspirated, turbocharged, or supercharged gasoline engines where API Service SJ, SH, SG, SF oils are required.

**BRAD PENN<sup>®</sup> *PENN-GRADE 1<sup>™</sup>* Partial Synthetic SAE 10W-30 and SAE 20W-50 Racing Oils** exceed the performance requirements of API Service Category SJ/CF. They are formulated with a typical TBN of 10.2 to provide a high level of detergency for superior protection against bearing corrosion and piston deposits in both turbocharged and non-turbocharged racing engines. These engine oils provide outstanding "heavy load" bearing protection on heavily stressed engine parts. The synthetic component of these racing engine oils enhances the protection afforded at high and low temperature extremes.

**BRAD PENN<sup>®</sup> *PENN-GRADE 1<sup>™</sup>* SAE 50 Racing Oil** provides a mono-grade alternative and offers a typical TBN of 8.0. It is fortified with a unique antiwear agent proven to be highly effective in the regime of extremely stressed competitive engines.

**BRAD PENN<sup>®</sup> *PENN-GRADE 1<sup>™</sup>* SAE "Nitro" 70 Racing Oil** is specifically formulated for gas, alcohol, and nitromethane fueled racing engines that experience extreme torque, load, and high temperature conditions. The initial high viscosity of the oil allows for excessive dumping of fuel ("blow by") into the lubricating fluid while maintaining critical protection for expensive, high performance racing engines and their parts.

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**BRAD PENN<sup>®</sup>**  
**PENN-GRADE 1<sup>™</sup> Racing Oils - Typical Properties**

<b>SAE Grade</b>		<b>10W-30</b>	<b>20W-50</b>	<b>50</b>	<b>70</b>
API Service	<b>Test Method</b>	SJ / CF	SJ / CF	SJ	SJ
API Gravity, 60°F	ASTM D-1298	30.6	29.1	27.3	27.1
Density, lbs/gal (g/L)	Calculated	7.28 (873)	7.34 (878)	7.44 (891)	7.45 (892)
Viscosity, cSt @ 40°C	ASTM D-445	68.6	179	205.1	314.8
Viscosity, cSt @ 100°C	ASTM D-445	10.5	20.0	20.0	27.0
Viscosity, SUS @ 100°F	ASTM D-2161	351	936	1,075	1,661
Viscosity, SUS @ 210°F	ASTM D-2161	61.9	101	101.1	132.9
Viscosity Index	ASTM D-2270	138	129	112	114
CCS, cP	ASTM D-5293	3,030 @ (-20°C)	8,000 @ (-15°C)	N/A	N/A
MRV, cP < 35 Pa	ASTM D-4684	20,700 @ (-30°C)	25,000 @ (-20°C)	N/A	N/A
Pour Point, °F (°C) (max)	ASTM D-97	-30 (-33)	-25 (-30)	5 (-15)	20 (-6)
Flash Point, COC, °F (°C) (min)	ASTM D-92	400 (204)	420 (214)	440 (226)	450 (232)
Color	ASTM D-1500	Green	Green	Green	Green
TBN	ASTM D-2896	10.3	10.2	8.0	8.0
Sulfated Ash, mass %	ASTM D-874	1.15	1.15	0.87	0.87
<b>Product Code</b>		<b>7150</b>	<b>7119</b>	<b>7115</b>	<b>7117</b>