



# Product Bulletin

## PREMIUM *PENN-GRADE*<sup>™</sup> MOTOR OILS

**BRAD PENN<sup>®</sup> Premium *PENN-GRADE*<sup>™</sup> Motor Oils** are formulated with high quality paraffinic base oils and advanced additive chemistries to meet the lubricating demands and severe operating conditions of today's higher revving, hotter running engines. They offer excellent anti-wear and shear stability properties, protection from engine sludge, varnish deposits and bearing corrosion, exceptional resistance to thermal breakdown, good anti-foaming characteristics, and lower phosphorus levels for improved emissions systems performance.

**BRAD PENN<sup>®</sup> Premium *PENN-GRADE*<sup>™</sup> Motor Oils** are recommended for use in gasoline engines and automotive applications where a higher viscosity is desired. These products are designed to maintain their film strength in severe applications involving high temperature, heavy-duty type service such as hauling boats and camping trailers at sustained high speeds for extended periods of time. Products meeting API Service Categories SN or SM are specified in most new car owner's manuals, but are also suitable for use in all earlier model vehicles calling for API SL, SJ, SH, SG, or SF quality oils. In all cases, the car or engine manufacturer's lubricant recommendations for API performance category and SAE viscosity grade should be followed (consult your vehicle's owner's manual).

**BRAD PENN<sup>®</sup> Premium *PENN-GRADE*<sup>™</sup> Motor Oils** are available in the two multi-viscosity SAE grades of **10W-40** (API SN) and **20W-50** (API SJ), as well as the mono-viscosity grade of SAE **30** (API SJ). Follow equipment manufacturers' recommendations for the appropriate viscosity grade.



**AMERICAN REFINING GROUP, INC.**

77 North Kendall Avenue • Bradford, Pennsylvania • 16701  
Phone: 814.368.1200 • Fax 814.368.1219 • [www.amref.com](http://www.amref.com) • ISO 9001:2008

**BRAD PENN<sup>®</sup>**  
**Premium *PENN-GRADE*<sup>™</sup> Motor Oils - Typical Properties**

<b>SAE Grade</b>		<b>10W-40</b>	<b>20W-50</b>	<b>30</b>
API Service	<b>Test Method</b>	SN	SJ	SJ
Gravity, API	ASTM D-4052	31.4	28.0	28.6
Density, lbs/gal (g/L)	Calculated	7.235 (868)	7.39 (885)	7.37 (883)
Viscosity, cSt @ 40°C	ASTM D-445	108.5	156	100.0
Viscosity, cSt @ 100°C	ASTM D-445	15.2	19.5	11.9
Viscosity Index	ASTM D-2270	149	142	110
CCS @ -25°C, cP	ASTM D-5293	6,200	9,500 (-15)	N/A
MRV @ -30°C	ASTM D-4684	57,400	32,500	N/A
Pour Point, °F (°C)	ASTM D-5949	-27.4 (-33) (max)	-17 (-27) (max)	-11 (-24) (max)
Flash Point, COC, °F (°C)	ASTM D-92	405 (207)	425 (218)	425 (218)
Color	ASTM D-1500	1.5	5.0	6.5
TBN	ASTM D-974	7.4	8.0	8.0
Sulfated Ash, mass %	ASTM D-874	0.83	0.87	0.87
KF Moisture, ppm (max)	ASTM D-6304	400	400	N/A
<b>Product Code</b>		<b>7129</b>	<b>7123</b>	<b>7113</b>