



# Product Bulletin

## BRAD PENN<sup>®</sup> PART SYNTHETIC MOTOR OILS

**BRAD PENN<sup>®</sup> Part Synthetic Motor Oils** employ a combination of premium quality mineral base oils, select synthetic stocks and superior additive technology to provide the ultimate in performance and quality. They meet or exceed the latest automotive manufacturers' requirements including API Service SN (Resource Conserving) as well as ILSAC GF-5.

### PERFORMANCE ADVANTAGES:

Engine oils meeting the new ILSAC GF-5 specification provide improvements in fuel economy, emission system durability, turbocharger protection, and engine oil robustness. Additionally, ILSAC GF-5 oils are designed for improved emulsion retention and stability for E85 fuels. **BRAD PENN<sup>®</sup> Part Synthetic Motor Oils** provide longer lubricant protection for extended drain intervals suggested by new car manufacturers. The low volatility ZDDP utilized in the SN/GF-5 product provides improved catalyst efficiency and prolonged catalyst life in emission systems as well as extended wear and oxidation protection. **BRAD PENN<sup>®</sup> Part Synthetic Motor Oils** are recommended for new and older vehicles equipped with catalytic converters.

- Excellent anti-wear properties
- Extended wear and oxidation protection
- Compatible with conventional motor oils
- Improved emissions/catalytic converter efficiency
- Outstanding low-temperature fluidity and protection at start up
- Improved protection against viscosity and thermal breakdown at high temperatures

### APPLICATIONS:

**BRAD PENN<sup>®</sup> Part Synthetic Motor Oils** are designed for today's higher revving, hotter running engines. They are also back-serviceable in applications where oils of API SM, SL or SJ quality are specified. Recommended for the following applications:

- When ILSAC GF-5 oils are required
- Where API SN (Resource Conserving) oils are desired
- In most turbo-charged gasoline passenger car engines
- Meets Ford's performance standards WSS-M2C945-A (SAE 5W-20) and WSS-M2C946-A (SAE 5W-30)



**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

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**BRAD PENN<sup>®</sup> Part Synthetic Motor Oils  
Typical Properties**

<b>SAE Grade</b>		<b>5W-20</b>	<b>5W-30</b>	<b>10W-30</b>
Product Code	Test Method	7142	7143	7168
Gravity, API	ASTM D-4052	33.2	32.6	30.8
Density, lbs/gal (g/L)	Calculated	7.17 (859)	7.18 (860)	7.26 (870)
Viscosity, cSt @ 40°C	ASTM D-445	51.6	64.2	70
Viscosity, cSt @ 100°C	ASTM D-445	8.9	11.0	11
Viscosity Index	ASTM D-2270	158	160	146
CCS @ -25°C, cP	ASTM D-5293	----	----	6000
CCS @ -30°C, cP	ASTM D-5293	5550	5950	----
MRV @ -30°C, cP	ASTM D-4684	----	----	34,700
MRV @ -35°C, cP	ASTM D-4684	18,700	35,400	----
Color	ASTM D-1500	1.5	1.5	1.5
Pour Point, °C (°F)	ASTM D-5949	-48 (-54.4)	-45 (-49)	-36 (-32.8)
Flash Point, COC, °F (°C)	ASTM D-92	420 (216)	430 (221)	430 (221)
TBN	ASTM D-2896	7.2	7.2	7.2
Sulfated Ash, mass %	ASTM D-874	0.85	0.85	0.85
API Service		SN / GF-5	SN / GF-5	SN / GF-5