



Product Bulletin

SUPERIOR FUEL EFFICIENT MOTOR OILS

BRAD PENN[®] Superior Fuel Efficient Motor Oils meet the latest API and ILSAC performance categories and provide a significant upgrade over previous API SM / ILSAC GF-4 engine oils. These new API SN / ILSAC GF-5 formulations offer considerable improvements in several key areas such as emissions system durability, initial and long-term fuel economy, oxidation protection, used oil pumpability, and piston cleanliness.

BRAD PENN[®] Superior Fuel Efficient Motor Oils are formulated with high quality base oils and an optimized additive system that includes enhanced friction modifier additives. These motor oils are formulated to meet the demands of the smaller, high-output gasoline engines and provide better fuel economy, help protect emissions systems, and improve overall engine oil life. 2004 and newer vehicles will especially benefit because of the increased emission system protection offered by ILSAC GF-5 formulations.

BRAD PENN[®] Superior Fuel Efficient Motor Oils provide the following:

- Increased fuel economy/'resource conserving'
- Improved cold weather starting and protection
- Better oxidation protection
- Reduced valve train wear
- Piston (ring) cleanliness and deposit control
- Low-temperature sludge control
- Improved used oil pumpability
- Emissions system protection

BRAD PENN[®] Superior Fuel Efficient Motor Oil SAE 5W-20 meets Ford's performance standard WSS-M2C945-A. The **SAE 5W-30** viscosity grade meets Ford's performance standard WSS-M2C946-A. All three viscosities meet the former General Motors (GM) Engine Oil Specification 6094M.

BRAD PENN[®] Superior Fuel Efficient Motor Oils are recommended for gasoline fueled passenger cars, light-duty trucks, vans, and SUVs (including turbocharged) requiring API SN / ILSAC GF-5 engine oil. They are also suitable for use in vehicles requiring previous API Engine Oil Service Categories SM, SL, SJ, SH, SG, SF, and SE in respective viscosity grades.



AMERICAN REFINING GROUP, INC.

77 North Kendall Avenue • Bradford, Pennsylvania • 16701

Phone: 814.368.1200 • Fax 814.368.1219 • www.amref.com • ISO 9001:2008

BRAD PENN[®]
Superior Fuel Efficient Motor Oils

Typical Properties

SAE Grade		5W-20*	5W-30*	10W-30*
API Service / ILSAC Category	Test Method	SN / GF-5	SN / GF-5	SN / GF-5
Gravity, API	ASTM D-4052	33.2	32.6	30.8
Density, lbs/gal (g/L)	Calculated	7.17 (859)	7.18 (860)	7.260 (870)
Viscosity, cSt @ 40°C	ASTM D-445	51.6	64.2	70
Viscosity, cSt @ 100°C	ASTM D-445	8.9	11.0	11.0
Viscosity Index	ASTM D-2270	158	160	146
CCS @ -25°C, cP	ASTM D-5293	5550	5950	6000
MRV @ -30°C, cP	ASTM D-4684	18,700	35,400	34,700
Pour Point, °F (°C)	ASTM D-5949	-54.4 (-48)	-49 (-45)	-32.8 (-36)
Flash Point, COC, °F (°C)	ASTM D-92	420 (216)	430 (221)	430 (221)
Color	ASTM D-1500	1.5	1.5	1.5
TBN	ASTM D-2896	7.2	7.2	7.2
Sulfated Ash, mass %	ASTM D-874	0.85	0.85	0.85
KF Moisture, ppm	ASTM D-6304	400 (max)	400 (max)	400 (max)
Product Code		7132	7127	7064

***Resource Conserving**

Note: Viscosity recommendations can vary with ambient temperatures and Original Equipment Manufacturer's (OEM's) requirements. Consult your owner's manual for the appropriate engine oil service category and viscosity grade.