



Product Bulletin

BRAD PENN[®] SYNTHETIC BLEND MOTOR OILS

BRAD PENN[®] Synthetic Blend 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[®] Synthetic Blend 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[®] Synthetic Blend 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[®] Synthetic Blend 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)



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BRAD PENN[®] Synthetic Blend Motor Oils Typical Properties

| SAE Grade | | 5W-20 | 5W-30 | 10W-30 |
|---------------------------|-------------|--------------|--------------|---------------|
| 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 |