



LUBRICANTS

Shield® Firebird

Phillips 66® Shield Firebird Motor Oil is an environmentally responsible, part-synthetic automotive engine oil designed to provide excellent engine protection for both turbocharged gasoline direct injection, conventional gasoline-fueled and flex-fueled passenger cars and light trucks under all operating conditions. It is formulated with a blend of synthetic and 70% or greater high-quality re-refined base stocks. The use of re-refined base stocks helps lessen the environmental impact of disposal of used oil.

Shield Firebird Motor Oil is formulated to provide excellent wear protection, to minimize sludge and varnish formation, and to resist viscosity and thermal breakdown, even in severe service. It also protects against rust and bearing corrosion, and is resistant to foaming. The part-synthetic formulation provides enhanced performance benefits at extreme temperatures compared with conventional engine oils, for extra protection under all driving conditions.

Shield Firebird Motor Oil is fully licensed by the API and meets new car warranty requirements as defined by ILSAC GF-6A. It is uniquely formulated to help combat low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines. It meets or exceeds "Resource Conserving" requirements for fuel economy improvement, emission system and turbocharger protection, and protection of engines operating on ethanol-containing fuels up to E85. It is backward serviceable for use where API SN or earlier "S" category engine oils are recommended.

Applications

- Turbocharged gasoline direct injection, conventional gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions
- Four-stroke cycle gasoline engines in other mobile or stationary equipment

Shield Firebird Motor Oil is licensed for:

- ILSAC GF-6A
- API Service SP, SN PLUS with Resource Conserving

Shield Firebird Synthetic Motor Oil meets or exceeds the requirements of:

- Chrysler MS-6395
- Ford WSS-M2C960-A1 (SAE 5W-20)
- Ford WSS-M2C961-A1 (SAE 5W-30)
- GM6094M (obsolete specification)

**Passenger
Car Engine Oil
Formulated with
70% or Greater
Re-Refined
Base Stocks**

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



Features/Benefits

- Helps protect against low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines (TGDI)
- Meets ILSAC GF-6A requirements for new cars under warranty
- Friction-modified for improved fuel economy
- Resists viscosity and thermal breakdown at high temperatures
- Protects against sludge and varnish formation
- Protects against wear
- Protects against rust and bearing corrosion
- Good low-temperature pumpability for easier cold starts
- Good foam resistance
- Formulated to protect turbochargers and emissions control system catalysts
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85
- Lessens the environmental impact of disposal of used oil

Shield® Firebird

Typical Properties		
SAE Grade	5W-20	5W-30
Specific Gravity @ 60°F	0.858	0.858
Density, lbs/gal @ 60°F	7.16	7.16
Color, ASTM D1500	3.5	3.5
Flash Point (COC), °C (°F)	220 (428)	220 (428)
Pour Point, °C (°F)	-39 (-38)	-39 (-38)
Viscosity, Kinematic		
cSt @ 40°C	50.7	67.1
cSt @ 100°C	8.6	11.1
Viscosity Index	150	159
High-Temp/High-Shear Viscosity, cP @ 150°C	2.7	3.2
Sulfated Ash, ASTM D874, wt %	0.86	0.86
Total Base Number (TBN), ASTM D2896	7.0	7.0
Phosphorus, wt %	0.077	0.077
Zinc, wt %	0.085	0.085
Re-refined Content, Finished Oil, wt %	>70	>70

Health Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://www.phillips66.com/SDS>

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.