



LUBRICANTS

## Shield® Armor

Phillips 66® Shield® Armor Full Synthetic Motor Oil is a premium quality, full-synthetic automotive engine oil designed to provide maximum engine protection for gasoline-fueled and flex-fuel passenger cars and light trucks under all operating conditions. It is particularly recommended for vehicles operating at extreme temperatures or under severe driving conditions, such as towing heavy loads.

Shield Armor Full Synthetic Motor Oil is formulated with synthetic base stocks. The full-synthetic formulation, compared with conventional engine oils, provides improved protection against viscosity breakdown and deposit formation at high temperatures; lower volatility for reduced oil consumption; and faster oil circulation at low temperatures for easier starting and better protection during cold starts.

Shield Armor Full Synthetic Motor Oil exceeds new car warranty requirements as defined by ILSAC GF-6A. 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

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

Shield Armor Full Synthetic Motor Oil is licensed for:

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

Shield Armor Full Synthetic Motor Oil meets or exceeds the requirements of:

- Chrysler MS-6395
- Ford WSS-M2C961-A (SAE 5W-30)
- Ford WSS-M2C962-A (SAE 0W-20)
- GM6094M (obsolete specification)

**Premium Full-Synthetic Passenger Car Engine Oil**

KEEPING THE  
WORLD  
RUNNING  
SMOOTHLY. 



## Features/Benefits

- Helps protect against low speed pre-ignition (LSPI) in turbocharged gasoline direct-injection engines (TGDI)
- Exceeds ILSAC GF-6A requirements for new cars under warranty
- Enhanced performance benefits at extreme temperatures compared with conventional engine oils
- Outstanding resistance to viscosity and thermal breakdown at high temperatures
- Protects against sludge and varnish formation
- Protects against rust and bearing corrosion
- Low volatility for reduced oil consumption
- Excellent low-temperature pumpability for protection during cold starts
- Highly resistant to foaming

## Shield® Armor

Typical Properties		
SAE Grade	0W-20	5W-30
Specific Gravity @ 60°F	0.846	0.849
Density, lbs/gal @ 60°F	7.05	7.07
Color, ASTM D1500	3.0	3.0
Flash Point (COC), °C (°F)	229 (444)	235 (455)
Pour Point, °C (°F)	-43 (-45)	-40 (-40)
Viscosity, Kinematic		
cSt @ 40°C	46.0	65.0
cSt @ 100°C	8.8	11.5
Viscosity Index	171	174
Cold Cranking Viscosity, cP	5,400	4,000
@ (°C)	(-35)	(-30)
High Temp/High Shear Viscosity, cP @ 150°C	2.6	3.0
Sulfated Ash, ASTM D874, wt %	0.80	0.80
Total Base Number (TBN), ASTM D2896	7.0	7.0
Zinc, wt %	0.085	0.085

## Health & Safety Information

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

12-20-21

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.

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