Esso Imperial Oil

Product Data Sheet

ESSO EXTRA

Premium Passenger Car Engine Oil

April 2009

ESSO EXTRA is recommended for economical protection meeting the warranty requirements of every major gasoline car and light duty truck

- **Economical protection meeting new car warranty requirements**
- **Meets API SM, the highest API standard for gasoline engine protection**
- **The 5W-20, 5W-30 and 10W-30 grades meet ILSAC GF-4, the latest gasoline engine oil standard of the International Lubrication Standards and Approval Committee**
- **Meets requirements for propane and natural gas fueled light duty vehicles.**
- **Meets latest fuel economy standards**
- **Helps to extend engine life by controlling engine wear**
- **Helps to reduce oil consumption and extend catalyst life by controlled oil volatility**
- **Meets requirements for turbo-equipped gasoline engines**
- **The 5W-20 grade meets the warranty requirements for model year 2001 and later Ford, Lincoln and Mercury vehicles except those with 4.0L V6 and 3.9 L V8 engines**
- **The 5W-20 grade meets the warranty requirements of 1998 and later model year Honda Accords and 1996 and later model year Honda Civics**

Primary Applications

ESSO EXTRA is available in 5W-20, 5W-30, 10W-30, 10W-40 and 20W-50 grades. The 5W-30 and 10W-30 grades exceed the requirements for ILSAC GF-4 and are also recommended for applications requiring ILSAC GF-1, GF-2 or GF-3. The 5W-20 grade also exceeds the requirements of ILSAC GF-4 but is only recommended for late model Ford, and some late model Chrysler, Mazda and Honda vehicles. Check your owners' manual for the correct grade recommendation. The 5W-20, 5W-30 and 10W-30 meet the requirements of API SM. All grades of Esso Extra are suitable for applications requiring API SE, SF, SG, SH, SJ and SL. ESSO EXTRA is recommended for engines using gasoline, propane or natural gas as fuel.

Most late model North American built cars specify SAE 5W-30 or 5W-20 grade engine oil for use year-round. These oils offers optimal performance for wear protection, fuel economy, oil consumption control, cold starting and warm-up lubrication. Please check owners' manual for the correct grade. SAE 10W-30 and 10W-40 grade oils are recommended for use or in older, higher mileage cars that have been using either of these grades for most of their operating lives. Esso Extra 10W-30 meets API SM and 10W-40 meets API SL.

Esso Extra 20W-50 meets API SL and is generally used where a higher viscosity oil is

required to control oil consumption in older higher mileage engines or in higher performance engines. SAE 20W-50 should not be used when start-up temperatures are below -10°C.

Performance Features

Fuel Economy
All grades of ESSO EXTRA contain a potent friction modifier for improved fuel economy. The 5W-20, 5W-30 and 10W-30 grades meet the latest fuel economy standard recognized by API and ILSAC.

Excellent Engine Wear
ESSO EXTRA contains effective anti-wear additives that minimize wear and scuffing of heavily loaded parts such as the valve train. Improved low temperature performance and water tolerance also contribute to the excellent wear performance of ESSO EXTRA.

Deposit Control - Engine Cleanliness
The detergent-dispersant additive system in ESSO EXTRA is designed to minimize ring zone deposits, ring sticking and liner scuffing. Poor engine cleanliness can shorten engine life and, in severe cases, can result in engine failure. The additive system in ESSO EXTRA is designed to control sludge formation, which can lead to plugged oil filters and screens, stuck valve lifters and other related problems.

Turbo-Charger Protection
ESSO EXTRA meets the GF-4 requirement of the current TEOST (Thermal-oxidation Engine Oil Stability Test) ensuring that the oil meets the severe deposit formation requirements of hot running engines.

Maximize Oil Drain
ESSO EXTRA contains potent oxidation inhibitors to retard oil breakdown and reduce varnish and lacquer deposits, which can be severe under high temperature conditions experienced in modern lean burn gasoline engines.

Low Temperature Performance
ESSO EXTRA meets the improved low temperature requirements of ILSAC GF-4/API SM quality oils ensuring that adequate oil flows to critical engine components during start-up.

Improved Catalyst Compatibility
ESSO EXTRA is formulated with an additive package that is designed to protect the exhaust catalyst ensuring reliable operation.

Lower Volatility
ESSO EXTRA is formulated against the latest volatility requirements to meet current emission requirements and minimize oil consumption

High Temperature Foam
ESSO EXTRA meets the foam requirement, ensuring your engine is protected from wear in high engine speed accelerations.

Precautions

ESSO EXTRA engine oils are manufactured from high quality petroleum base stocks, carefully blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. Special care is also recommended in handling used motor oils.

Note: This product is not controlled under Canadian WHMIS legislation.

Lubricants and Specialties, Marketing Technical Services
Helplines: 1-800-268-3183

Grade Specific Recommendations

SERVICE	5W-20	5W-30	10W-30	10W-40	20W-50
ILSAC GF-4, GF-3	R	R	R		
ILSAC GF-2, GF-1		R	R		
API SM	R	R	R		
API SL	R	R	R	R	R
API SH		R	R	R	R
EC- API SL, SM	R	R	R		
Ford WSS-M2C930-A	R				
Ford WWS-M2C153-H	R				
Ford WSS-M2C929-A		R			
Ford WSS-M2C395-A			R		
Ford ESE-M2C153-G		R	R	R	
Ford WSS-M2C205-A		R	R	R	
DaimlerChrysler MS6395		R	R	R	
General Motors GM6094M		R	R		
MIL-CID-A-A-52039A		R	R		

R = Grade is recommended for service specified

Typical Properties

	5W-20	5W-30	10W-30	10W-40	20W-50
Density @ 15°C, kg/m^3	857	859	869	873	887
Flash Point, COC, °C	200	210	215	215	230
Viscosity Index	157	160	144	151	120
Kinematic Viscosity, cSt.,					
@100°C	8.4	10.7	10.4	14.5	17.0
@40°C	46.7	63.2	66.4	99.3	153
Viscosity, CCS, Centipoise					
@ -15°C					6000
@ -25°C			5600	5900	
@ -30°C	4750	5200			
Viscosity, MRV, Centipoise					
@ -15°C					18,100
@ -20°C					44,200
@ -25°C					
@ -30°C			18,900	21,300	
@ -35°C	14,100	18,500	50,400	55,000	
@ -40°C	45,000	53,500			
MRV LPT (°C at 60,000 cP)	-41	-40	-36	-35	-25
Pour Point °C D97	-30	-33	-30	-30	-24
Color, ASTM	2.5	2.5	2.5	2.5	3.0
Sulfated Ash, wt%	0.8	0.8	0.8	1.0	1.0
TAN, D664	2	2	2	2.5	2.5
TBN D2896*	7.5	7.5	7.5	8.0	8.0

The values shown above are representative of current production. Some are controlled by manufacturing and performance specifications while others are not. All may vary within modest ranges.
** Modified test method*

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