



Product Data Sheet

ESSO GEAR OIL GX

AUTOMOTIVE GEAR OILS

April 2009

Esso Gear Oil GX is designed to protect gear operating in severe automotive applications.

- ◆ Esso Gear Oil GX is a multi-service, extreme pressure, sulphur-phosphorus type gear oil which meets API service classification GL-5.
- ◆ Meets the manual transmission standard API MT-1.
- ◆ Meets MIL-PRF-2105E

Primary Applications

Esso Gear Oil GX is a multi-service, non-corrosive type hypoid gear lubricant suitable for API service GL-5 applications. GL-5 is defined by the American Petroleum Institute as designating those lubricants suitable for the lubrication of gears, particularly hypoid gears, in passenger cars, trucks and other equipment operating under high speed, shock load; high speed, low torque; and low speed, high torque conditions.

Esso Gear Oil GX meets the manufacturer's recommendation for most manual transmissions, reducers, differentials, and final drives used in passenger cars, trucks, construction equipment, farm tractors and industrial equipment requiring API GL-5 and /or API MT-1 performance level. Where the builders specify a heavy duty engine oil or a non-EP mineral gear oil, use MARVELUBE® Gear Oil 80W-90.

Esso Gear Oil GX 75W-80W and 75W-90 are specifically recommended as all-season lubricants for manual transmissions and differentials in most passenger car and light duty vehicles.

In addition to being suitable for API service GL-5, Esso Gear Oil GX 80W-90 and 85W-140 are approved against the requirements for the U.S. Military Specification MIL-PRF-2105E.

Esso Gear Oil GX 80W-90 and 85W-140 meet the severe requirements of the Mack GO-H and Mack GO-J specifications and may be used in mixed fleets which include Mack Trucks.

Esso Gear Oil GX is also suitable for worm gear drives and axles.

Esso Gear Oil GX must not be used in automatic or power shift transmissions, hydrostatic drives or

systems that include the lubrication of wet brakes and clutches.

Many manual transmissions require GL-4 quality with particular frictional requirements for synchro-mesh. Esso Gear Oil GX meets API MT-1, the manual transmission standard, and is expected to give suitable gear and 'yellow' metal protection but may not match the frictional requirements to assist with smooth gear shifting.

Performance Features

Score Protection

Esso Gear Oil GX meets the EP score protection required for API service GL-5 and MIL-PRF-2105E. This makes the oil suitable for all but the most severe gear applications; for high off-set hypoid gear and other heavy duty severe applications, use Esso Gear Oil GX Extra.

Thermal Stability & Oxidation Resistance

Excellent oxidation and thermal stability provide protection against deterioration and sludging. This enhances gear box cleanliness.

Multi-Temperature Service

Esso Gear Oil GX 80W-90 is suitable for moderate winter performance. Esso Gear Oil GX 75W-90 and 75W-80 are recommended for most equipment to temperatures as low as -40 °C.

Non-Corrosive

Esso Gear Oil GX is non-corrosive towards brass, bronze or copper components used in bushings, thrust washers and clutch plates.

Filterability

The use of only soluble additives enhances lubricant filterability.

Seal Compatibility

Esso Gear Oil GX can be used with seals commonly found in manual transmissions, gear boxes and final drives.

Foam Protection

A special inhibitor is blended into Esso Gear Oil GX to minimize foaming and air entrainment during operation.

Compatibility

Esso Gear Oil GX and GX Extra are fully compatible and may be mixed. Customers should be aware that mixing the fluids will cause the enhanced gear score protection of Esso Gear Oil GX Extra to be reduced.

Storage Stability

The soluble additive system used in Esso Gear Oil GX will not separate under normal storage conditions.

Precautions

Esso Gear Oil GX is manufactured from quality petroleum base stocks, blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact with the skin, splashing into the eyes, ingestion, or vapour inhalation. Please refer to the Esso Material Safety Data Sheet for further information.

Note: This product is NOT controlled under the Canadian WHMIS legislation.

Typical Properties

Esso Gear Oil GX	75W-80	75W-90	80W-90	85W-140
Density @ 15 °C	876	896	887	894
Flash, COC, °C	160	150	165	200
Kinematic Viscosity				
cSt @ 40 °C	46	92	146	347
cSt @ 100 °C	7.8	15.8	15.8	27.4
Viscosity Index	139	184	111	105
Brookfield Viscosity, cP				
@ -40°C	70,000	80,000		
@ -26°C			90,000	
@ -12°C				60,000
Pour Point, °C	-39	-45	-27	-15
Channel Point, °C	<-45	<-45	<-35	<-20
Colour	1.5	1.5	1.5	2.5

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.