



GEAR OILS 80W/90 & 85W/140

PRODUCT DESCRIPTION

Hi-Tec Gear Oils are superior GL-5 gear oils designed to provide:

- Excellent Thermal Stability
- Much Improved Oil Seal Life
- Much Improved Durability (Gear Surface Life)
- Much Improved Corrosion Protection to Yellow Metals under both wet and dry conditions.

All of these improvements overcome the growing concerns of the gear manufacturers (OEM's - Original Equipment Manufacturers), vehicle and fleet owners relative to these performance areas when operating with the former generation of conventional hypoid extreme pressure drive train lubricants.

Hi-Tec Gear Oil are specified irrespective of service severity, for the lubrication of car, truck and tractor differentials and other final drives, transfer and steering gearboxes and manual transmissions. Special oxidation resistant paraffinic base oils combined with high performance extreme pressure (EP) additives are formulated in **Hi-Tec Gear Oils** to ensure long service life to transmission drive lines.

BENEFITS

Hi-Tec Gear Oils avoid lubricant related high temperature degradation problems of "cooked" transmission synchronisers and reduced oil flow to gear and bearings (due to obstructed oil passageways or filters) so that costly transmission failures associated with lubricant do not occur.

Hi-Tec Gear Oils provide excellent long term protection against pitting fatigue – life limiting variable of a gear set. OEM's recognise that lubricant protection against pitting is a very important design variable for long transmission life. Field tests, laboratory spalling and power divider snap tests confirm **Hi-Tec Gear Oils** ability to give long durability to gear sets.

Corrosion protection is afforded by **Hi-Tec Gear Oils** to copper alloys under both wet and dry conditions. There is no corrosion causing interaction between these metals and the special EP additives incorporated in **Hi-Tec Gear Oils**, as may occur with other commercially available EP additives.

The 'stay-on' properties of the high film strength **Hi-Tec Gear Oils** effectively quieten transmission drive line noise tendencies under all conditions of low speed high torque, high speed low torque and shock loading. **Hi-Tec Gear Oils** avoid the natural development of foam in transmission service. Foam is undesirable because it promotes ineffective gear lubrication with resultant premature wear.

CHARACTERISTICS

THERMAL STABILITY. **Hi-Tec GEAR OILS** provide protection against the formation of sludge, oxidation and carbonaceous deposit build-up and excessive viscosity increases, thereby ensuring long service life of transmission components. Thermal stresses on gear oils in modern high performance transmissions have increased due to the following:

- Change in vehicle aerodynamics
- Wider use of drive-line retarders
- Increased "Power Density" for transmission and rear axles
- Extended slow speeds and high loads
- Higher ambient temperatures
- Higher horse-power
- Extended warranties/reduced maintenance etc.

Excessive heat build up can occur (up to 180°C), resulting in oil degradation and increased friction and wear.

SPECIFICATIONS

Hi-Tec Gear Oils meet or exceeds the following demanding performance requirements:

API: GL-5

Military specification: MIL-L-2105D.

Always consult your vehicle owner's manual for the manufacturer's lubricant recommendations.

TYPICAL PROPERTIES

Property	80W/90	85W/140
Item Code (HI4-)	2441	2449
Appearance	Natural	Natural
Density (kg/Lt) @ 15°C	0.90	0.91
Viscosity (cSt) @ 40°C	150	330
@ 100°C	16.0	25.0
cP at ()°C	142,000 (-26)	141,000 (-12)
Viscosity Index	104	98
Pour Point (°C)	-33	-21
Copper Strip Corrosion-		
3 hours @ 100°C	1b	1b
Flash Point; COC (°C)	250	258
Carbon Residue, Conradson (%)	0.39	0.59
Foam Formation (after settling) -		
Sequence I	Nil	Nil
Sequence II	Nil	Nil
Sequence III	Nil	Nil