



512M

TECHNICAL DATA SHEET

Armor Plate with Moly-D XHP Gear Lubricant

Description:

A multi-grade gear oil that provides excellent lubrication for both the axle and transmission in summer and winter has long been desired by equipment manufacturers. The great success and public acceptance of multi-grade motor oils has emphasized the need for similar viscosity features in gear oils. The viscosity improvers that work so well in motor oils would shear out under the extreme pressures encountered in gears, resulting in severe viscosity loss.

Armor Plate with Moly-D XHP 512M Gear Lubricant is the first fully balanced multi-grade gear lubricant which provides superior shear stability and thermal stability, and protects critical drivetrain components at temperatures 100°F. above the operating capability of conventional GL-5 gear lubricants. These gear lubricants suffer no significant viscosity loss even after 50,000 miles of operation in hypoid axles, and wide operating temperature range is provided with its low temperature flow characteristics. 512M far exceeds the performance level most widely demanded by equipment manufacturers.

Composition:

The XHP formulation of 512M is based on completely shear stable and thermally stable lubricant components and additive chemistry to give the necessary oxidation stability, rust protection, extreme pressure properties, and controlled chemical activity to meet full scale and laboratory tests required by the MIL-L-2105D specification. This product contains dispersants and anti-oxidants which provide a level of thermal stability and deposit control not found in other GL-5 gear lubricants without sacrificing demulsibility. In addition, it contains a special adhesive/cohesive additive for more positive lubrication and a seal swell agent to condition seals and help reduce leakage.

Performance Characteristics:

Armor Plate with Moly-D XHP 512M is a thermally stable, extra high performance automotive gear oil. Below are the superior features of the new XHP additive system:

Superior Thermal Stability
Complete Shear Stability
Extended Oil Seal Life
Exceptional Component Cleanliness
Reduced Wear
Copper/Brass Compatibility

Improved Corrosion Protection
Excellent Water Resistance
Increased Extreme Pressure Rating
Reduces Operating Temperature
GL-5+/MT-1

Uses:

Armor Plate with Moly-D XHP 512M is recommended for heavy-duty hypoid



PRIMROSE OIL COMPANY, INC.

11444 Denton Drive / P.O. Box 29665 / Dallas, Texas 75229-0665/ 972.241.1100/ 800.275.2772/ Fax: 972.241.4188

and spiral bevel axles, manual transmissions, transfer cases or power dividers, limited slip differentials, automotive and industrial worm gears, and for axles using phosphate treated gears where MIL-L-2105D products are specified.

Applications: 512M is designed for use where either SAE 80W, 90, or 80W-90 weight gear lubricant is recommended. The SAE weight recommended for any particular piece of equipment is found in the owners manual or Check Chart.

This product will blend readily with any approved petroleum base gear lubricant of the same SAE weight; however, it delivers optimum performance when used exclusively in any gear box or application to which it is introduced.

Specifications:	SAE Viscosity	80W-90
	Viscosity, cP @-26°C	73,000
	Viscosity, cSt @ 40°C	135
	cSt @ 100°C	14.3
	Viscosity, SUS @ 100°F	625
	SUS @ 210°F	75
	Viscosity Index	104
	Flash Point, °F	475
	Pour Point, °F	-15
	Gravity, API	27.4
	Foam, Passed all sequence tests	20/0
	Corrosion, 3 hrs @ 212°F	Pass
	Precipitation Number	None
	Timken Load Test, lbs	70
	High Temp/High Shear @ 150°C	5.02
	L38 After Shear @ 100°C	14.1
	INJ After Shear @ 100°C	14.0