PRIMROSE PLUS

TECHNICAL DATA SHEET

513M 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 513M is the first, fully balanced multi-grade gear lubricants 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. This gear lubricant suffers no significant viscosity loss even after 50,000 miles of operation in hypoid axles, and a wide operating temperature range is provided with its low temperature flow characteristics. 513M far exceeds the performance level most widely demanded by equipment manufacturers.

Composition:

The XHP formulation of 513M 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 specifications. 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 513M is a thermally stable, extra high performance automotive gear oil. Below are the superior features of the new XHP additives system:

- GL-5+/MT-1
- 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 Ratings
- Reduced Operating Temperature
- Exceeds all applicable military, industry, and equipment manufacturers' performance standards.

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Uses:

Armor Plate with Moly-D XHP 513M is recommended for heavy duty hypoid 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:

513M is designed for use where either SAE 90, 140, or 85W-140 weight gear lubricant is recommended. The SAE weight recommended for any particular piece of equipment is found in the owner's 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	85W-140
API Gravity	26.1
Flash Point, °F	540
Viscosity	
SUS @ 100°F	1632
SUS @ 210°F	124
Cs @40°F	352
Viscosity Index	103
Pour Point	-5
Foam, all sequence tests	Pass
Corrosion, 3 hrs @ 212°F	Pass
Precipitation Number	None
Timken Load Test, lbs	70