



Mobilgrease XHP™ 681 Mine

Mobil Grease , United States

Grease

Product Description

Mobilgrease XHP 681 Mine, a member of the Mobilgrease XHP family, is a highly specialized grease engineered to handle the lubrication demands of off-road equipment used in the mining industry. Using the same leading edge, proprietary lithium complex technology, Mobilgrease XHP 681 Mine utilizes an ISO 680 viscosity and a polymer-enhanced backbone to provide the water resistance and wet shear stability critical to successful grease lubrication for this environment. The AW/EP additive system coupled with 5% molybdenum disulfide loading provides balanced load-carrying capability across a spectrum of load, speed and temperature conditions, all prevalent in mining equipment used in the job of digging and hauling mineral deposits on a daily basis. Additionally, Mobilgrease XHP 681 has exceptional staying power and extended service capabilities with very good water wash-out, spray-off, will not corrode steel or copper bearing alloys, is compatible with conventional sealing materials. All of this performance does not come at the expense of pumping characteristics, as Mobilgrease XHP 681 Mine retains good mobility even at moderately low temperatures.

Features and Benefits

Mobilgrease XHP 681 is a leading member of the Mobilgrease brand of products, which has gained a reputation world-wide for innovation and performance excellence. Mobilgrease XHP greases are state-of-the-art products designed by our formulation technologists and backed by our world-wide technical support staff.

A key factor in the excellent adhesion and cohesion properties and high drop point of Mobilgrease XHP 681 is the proprietary manufacturing technology developed at our research facilities and adopted by our modern manufacturing facilities. These products use specially selected additives to provide excellent oxidation stability, rust and corrosion control, resistance to water contamination as well as anti-wear and EP protection. Mobilgrease XHP 681 offers the following features and potential benefits:

Features	Advantages and Potential Benefits
Superb resistance to water washout and spray-off	Helps assure proper lubrication and protection even in the most severe water exposure conditions
Highly adhesive and cohesive structure	Excellent grease tenacity helps reduce leakage and extend re-lubrication intervals for reduced maintenance requirements.
Excellent rust and corrosion resistance	Helps protect lubricated parts even in hostile aqueous environments, especially acidic water
Very good resistance to thermal, oxidative and structural degradation at high temperature	Extended grease life and enhanced bearing protection in high temperature applications helps reduce maintenance and replacement costs.
Very good anti-wear and EP performance	Provides reliable protection of lubricated equipment, even under conditions of high sliding and shock loading with potential for extended equipment life and reduced unanticipated downtime

Applications

Mobilgrease XHP 681 Mine is designed primarily for use in the mining industry where it is recommended by ExxonMobil for the lubrication of slow moving plain and rolling element bearings. It will provide extraordinary performance in contractor, construction, earthmoving, mobile and stationary equipment particularly where long lubrication intervals or oscillating/vibrating motion is present.

Properties and Specifications

Property	
Grade	NLGI 1

Property	
Thickener Type	Lithium Complex
Base Oil Viscosity of Greases @ 40 C, mm <sup>2</sup> /s, AMS 1697	680
Color, Visual	Gray
Copper Strip Corrosion, Rating, ASTM D4048	1A
Corrosion, Bearing, Rating, ASTM D1743	PASS
Dropping Point, °C, ASTM D2265	280
Four-Ball Extreme Pressure Test, Load Wear Index, kgf, ASTM D2596	91.5
Four-Ball Extreme Pressure Test, Weld Load, kgf, ASTM D2596	620
Four-Ball Wear Test, Scar Diameter, 40 kg, 1200 rpm, 1 h, 75 C, mm, ASTM D2266	0.5
Oil Separation, 24 h @ 25 C, mass%, ASTM D1742	2
Oxidation Stability, Pressure Drop, 100 h, kPa, ASTM D942	20.7
Penetration Consistency Change, Roll Stability, %, ASTM D1831	+10
Penetration, 60X, 0.1 mm, ASTM D217	325
Penetration, Worked, Change from 60X to 100,000X, 0.1 mm, ASTM D217	+10
US Steel Mobility @ 20 F, g/min, AMS 1390	11
Water Resistance, 3 h @ 90 C, Rating, DIN 51807-1	0
Water Sprayoff, Loss, %, ASTM D4049	38.7
Water Washout, Loss @ 79 C, wt%, ASTM D1264	2.5

## Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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