

## Mobilgrease XHP™ 220 Series

Mobil Grease, Japan

Mobil grease

#### **Product Description**

Mobilgrease XHP $^{\text{TM}}$  220 greases are extended service lithium complex greases intended for a wide variety of applications and severe operating conditions. These greases were designed to outperform conventional products by applying cutting edge, proprietary, lithium complex manufacturing technology. They are formulated to provide excellent high temperature performance with superb adhesion, structural stability and resistance to water contamination. These greases have a high level of chemical stability and offer excellent protection against rust and corrosion. These greases feature high dropping points and maximum recommended operating temperature of 140° C (284°F). Mobilgrease XHP 220 greases are available in NLGI grades 00, 0, 1, 2 and 3 with an ISO VG 220 base oil viscosity.

Mobilgrease XHP 220 greases are designed for a wide range of applications including the industrial, automotive, construction and marine sectors. Their performance features make them ideal choices for operating conditions including high temperature, water contamination, shock loading and extended re-lubrication operations. Mobilgrease XHP 222 Special is an extreme pressure grease fortified with 0.75% molybdenum disulfide that provides protection from wear under conditions pivoting and other conditions that lead to loss of oil film.

## Features and Benefits

Mobilgrease XHP 220 greases are leading members of the Mobilgrease brand of products, which have gained a reputation for innovation and performance excellence. Mobilgrease XHP 220 greases are high performance 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 220 greases 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 220 Series products offer 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	Protection of lubricated parts even in hostile aqueous environments
Very good resistance to thermal, oxidative and structural degradation at high temperature	Helps extend grease life and enhance bearing protection in high temperature applications helping to reduce maintenance and replacement costs
Very good anti-wear and EP performance	Reliable protection of lubricated equipment, even under conditions of high sliding with potential for extended equipment life and reduced unanticipated downtime
Broad multi-purpose application	Provides potential for inventory rationalization and reduced inventory costs

# **Applications**

Mobilgrease XHP 220 greases are used in a wide range of equipment including industrial, automotive, construction and marine applications. Their blue color enables easy verification of application:

Mobilgrease XHP 005 and 220 are softer, high-temperature greases recommended by ExxonMobil for centralized grease application systems, gear lubrication, and where extreme-cold-temperature pumpability is important.

Mobilgrease XHP 221 is recommended by ExxonMobil for use in industrial and marine applications, chassis components and farm equipment. It provides excellent low temperature performance.

Mobilgrease XHP 222 is recommended by ExxonMobil for industrial and marine applications, chassis components and farm equipment. Its sticky formulation stays in applications longer.

Mobilgrease XHP 223 is recommended by ExxonMobil for applications where good high temperature and anti-leakage properties are required. It is particularly recommended for severe truck wheel bearing applications or for rolling element bearings subject to vibration, or where higher speeds require a grease with higher consistency to provide channeling characteristics.

Mobilgrease XHP 222 Special contains 0.75% molybdenum disulfide, is grey in color and is recommended by ExxonMobil for moderate duty service in industrial applications, chassis components and farm equipment. It also finds application in king pins, U-joints, fifth wheels and bucket pins.

### Specifications and Approvals

This product has the following builder approvals:	220	221	222
Fives Cincinnati P-64			X
Fives Cincinnati P-72		X	
Fives Cincinnati P-79	X		

This product meets or exceeds the requirements of:	220	221	222
DIN 51825:2004-06 - KP 1 N -20		X	
DIN 51825:2004-06 - KP 2 N -20			X
NLGI HPM+WR			X

## Properties and Specifications

Property	005	220	221	222	222 SPECIAL	223
Grade	NLGI 00	NLGI 0	NLGI 1	NLGI 2	NLGI 2	NLGI 3
Thickener Type	Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex
Color, Visual	Dark blue	Dark blue	Dark blue	Dark blue	Grey-black	Dark blue
Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048	1B	1B	1B	1B	1B	1B
Corrosion Preventive Properties, Rating, ASTM D1743	Pass	Pass	Pass	Pass	Pass	Pass

Property	005	220	221	222	222 SPECIAL	223
Dropping Point, °C, ASTM D2265		260	275	290	290	290
Four-Ball Extreme Pressure Test, Load Wear Index, kgf, ASTM D2596	46.7	46.7	46.7	46.7	46.7	46.7
Four-Ball Extreme Pressure Test, Weld Point, kgf, ASTM D2596	315	315	315	315	400	315
Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266	0.5	0.5	0.5	0.5	0.5	0.5
Molybdenum Disulfide Content, wt %, CALCULATED					0.75	
Oxidation Stability, Pressure Drop, 100 h, kPa, ASTM D942	35	35	35	35	35	35
Penetration, 60X, 0.1 mm, ASTM D217	415	370	325	280	280	235
Roll Stability, Penetration Consistency Change, 0.1 mm, ASTM D1831		0	0	0	0	0
SKF Emcor Rust Test, Distilled Water, ASTM D6138	0,0	0,0	0,0	0,0	0,0	0,0
Timken OK Load, lb, ASTM D2509	40	40	40	40	40	40
Viscosity @ 100 C, Base Oil, mm2/s, ASTM D445	18.6	18.6	18.6	18.6	18.6	18.6
Viscosity @ 40 C, Base Oil, mm2/s, ASTM D445	220	220	220	220	220	220
Viscosity Index, ASTM D2270	94	94	94	94	94	94
Water Sprayoff, Loss, %, ASTM D4049			15	10	10	10
Water Washout, Loss @ 79 C, wt%, ASTM D1264			8	5	5	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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