



マズダ石油
Middle East Oil & Gas

***Product of GREASES Lineup
CATALOG***





マズダ石油
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AUTOMOTIVE & INDUSTRIAL GREASES





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LITHIUM EP
GREASE

LITHIUM EP GREASE

Lithium EP is a multi-purpose extreme pressure grease based on lithium 12- Hydroxystearate soap thickener and high-quality mineral base oils. This grease contains antioxidants, rust and corrosion inhibitors, extreme pressure, and anti-wear additives. Lithium EP grease offers good mechanical stability, load-carrying capacity, wear and corrosion protection.

APPLICATIONS

These greases are recommended for steel mill lubrication and heavy duty plain and rolling element bearings and gearboxes requiring a semi-fluid grease, heavy duty, industrial applications where high unit pressures or shock loads are present. Lithium EP is also suitable for commercial vehicle and construction equipment applications such as chassis joints and pin bushing lubrication. NLGI 3 grade is recommended for inclined and vertical shafts applications even under severe vibrations.

PRODUCT ADVANTAGES

- The operating temperature range is from -25°C to 130 °C.
- Excellent mechanical stability
- Easy to pump at low temperatures
- Excellent resistance against water
- Very good anti-wear protection
- Very good rust and corrosion protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE					
		000	00	0	1	2	3
NLGI Grade	-	000	00	0	1	2	3
Thickener Type	-	Lithium					
Appearance	Visual	Smooth & Homogenous					
Color	Visual	Yellow to Brown					
Work Penetration @25°C	ASTM D217	445 - 475	400-430	355-385	310-340	265-295	220-250
Copper Strip Corrosion, 24hrs @100°C	ASTM D4048	1b max.	1b max.	1b max.	1b max.	1b max.	1b max.
Dropping Point °C, Min	ASTM D2265	N/A	N/A	N/A	190	190	190
Water Washout Resistance %Wt. @79°C	ASTM D1264	N/A	N/A	N/A	Max 10		
Four Ball Weld Load, Kgf, Min	ASTM D2596	200					
Operating Temperature Range, °C	INTERNAL	-25 to 130					
Base Oil Viscosity @40°C (Cst)	ASTM D445	90-110					



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LITHIUM CALCIUM EP
GREASE

LITHIUM CALCIUM EP GREASE (SEMI Synthetic)

Lithium Calcium EP is a fluid grease for use in centralized lubrication systems on trucks and buses. It is based on highly refined mineral as well as selected synthetic base oils, extreme pressure, and other carefully selected additives to provide excellent protection in all conditions.

APPLICATIONS

Lithium Calcium EP grease is suitable for centralized lubricating installations in utility vehicles as well as for outside working units having long lubrication feed lines. This product is semi-fluid and may also be used for many gear types, where grease lubrication is recommended. It is also used for lubrication of rail vehicle wheels, truck wheel bearings, roller bearings in crushers, mills and mixers general lubrication applications in steel plants, especially hot and cold rolling mills, centralized lubrication systems where grease is supplied to highly loaded lubrication points.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 140°C
- Effective extreme pressure properties
- Enhanced load-carrying and wear protection properties
- Good pumpability
- Good water washout properties

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	-	00/000
Thickener Type	-	Lithium-calcium
Appearance	Visual	Smooth & Homogenous
Color	Visual	Red
Base Oil Type	-	Semi Synthetic
Work Penetration @25°C	ASTM D217	440
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b
Dropping Point °C	ASTM D2265	N/A
Operating Temperature Range, °C	INTERNAL	-20 to 140
Base Oil Viscosity @40 °C (Cst)	ASTM D445	40.0
Base Oil Viscosity @100°C (Cst)	ASTM D445	7.0



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LITHIUM EP
GREASE 220

LITHIUM EP GREASE 220

Lithium EP grease 220 is a multi-purpose, extreme-pressure grease based on lithium 12-Hydroxystearate soap thickener and high-quality mineral base oil. This grease contains extreme pressure and other proven additives to enhance the performance in a wide range of applications. It is specifically recommended for steel mill, heavy-duty plain and rolling element bearings operating under severe conditions including shock loading and wet environments, gear box application where semi fluid grease is required for centralized chassis lubrication systems.

APPLICATIONS

Lithium EP grease 220 is specifically recommended for steel mill, heavy-duty plain and rolling element bearings operating under severe conditions including shock loading and wet environments, gear box application where semi fluid grease is required for centralized chassis lubrication systems.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 130°C
- Excellent anti-wear and extreme pressure properties
- Excellent mechanical stability
- Good resistance to water-washout
- Excellent oxidation stability

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE		
NLGI Grade	-	00	0	1
Thickener Type	-	Lithium	Lithium	Lithium
Appearance	Visual	Smooth & Homogenous		
Color	Visual	Yellow to Light Brown		
Base Oil	-	Mineral	Mineral	Mineral
Work Penetration @25°C	ASTM D217	400-430	355-385	310-340
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b	1b	1b
Dropping Point °C, Min	ASTM D2265	N/A	190	190
Four Ball Weld Load Kgf, Min	IP239	250	250	250
Four Ball Wear Scar Dia, mm, Max	ASTM D2266	0.6	0.6	0.6
Operating Temperature Range, °C	INTERNAL	-20 to 130		
Base Oil Viscosity @40°C (Cst)	ASTM D445	220	220	220



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LITHIUM MP
GREASE

LITHIUM MP GREASE

Lithium MP grease is a general-purpose lubricating grease based on Lithium Hydroxystearate soap thickener and high-quality mineral base oil. This grease contains antioxidants, rust, corrosion inhibitors, and anti-wear additives. This product is recommended for the lubrication of rolling element bearings, electric motor bearings, water pumps, and sealed-for-life bearings. NLGI 1 and NLGI 2 are designed for general industrial lubrication which can be used through centralized lubrication systems operating at normal temperatures.

APPLICATION

Lithium MP grease is recommended for the lubrication of rolling-element bearings, electric motor bearings water pumps, and sealed-for-life bearings. These greases are designed for general industrial lubrication which can be used through centralized lubrication systems operating at normal temperatures.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 130°C
- Good oxidation and mechanical stability
- Reliable high-temperature performance
- Long storage life
- Good rust and corrosion protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE					
NLGI Grade	-	000	00	0	1	2	3
Thickener Type	-	Lithium					
Appearance	Visual	Smooth & Homogenous					
Color	Visual	Yellow to Brown					
Work Penetration @25°C	ASTM D217	445-475	400-430	355-385	310-340	265-295	220-250
Copper Strip Corrosion For 24hrs @100°C	ASTM D4048	1b max.	1b max.	1b max.	1b max.	1b max.	1b max.
Dropping Point °C, Min	ASTM D2265	N/A	N/A	190	190	190	190
Water Washout Resistance %Wt @79°C	ASTM D1264	N/A	N/A	N/A	Max 10		
Emcor Rust Preventive Test	ASTM D6138	Pass					
Operating Temperature Range, °C	INTERNAL	-20 to 130					
Base Oil Viscosity @40°C (Cst)	ASTM D445	90-110					



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LITHIUM EP Grease
Synthetic

LITHIUM EP GREASE (SYNTHETIC)

Lithium EP grease is a synthetic oil-based grease using lithium soap. Its unique thickener technology and low viscosity oil (PAO), provide excellent lubrication performance at low temperatures down to -50°C and extremely high speeds.

APPLICATION

Lithium EP grease synthetic is recommended for automotive applications at both high and low temperatures. It is best suitable in disc brake wheel bearings, balls and steering joints.

PRODUCT ADVANTAGES

- The operating temperature range is from -50°C to 110°C
- Low friction torque
- Quiet running
- Good oxidation stability
- Good water resistance

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	2	3
Thickener Type	-	Lithium	Lithium
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	whitish	whitish
Work Penetration @25°C,	ASTM D217	265-295	220-250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b.	1b.
Dropping Point °C, Min	ASTM D2265	190	190
Water Washout Resistance %Wt. @79°C	ASTM D1264	max 10	max 10
Four Ball Weld Load, Kgf, Min	ASTM D2596	min 250	min 250
Oil Separation %, 30hrs @100°C	ASTM D6184	max 5	max 5
Operating Temperature Range, °C	INTERNAL	-50 to 110	
Base Oil Viscosity @40°C (Cst)	ASTM D445	100	100



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LITHIUM MOLYBDENUM
GREASE 3%
Molybdenum Disulfide

LITHIUM GREASE WITH 3% MOLYBDENUM disulfide

Lithium Molybdenum Grease 3% Moly is based on lithium 12-Hydroxystearate soap and high-quality mineral base oil. The grease contains antioxidants, rust and corrosion inhibitors, extreme pressure, and anti-wear additives. The addition of molybdenum disulfide is providing extra protection against wear and shock loads. . This grease contains 3% of Molybdenum disulfide.

APPLICATIONS

Lithium Molybdenum Grease is a multi-purpose grease suitable for a wide range of applications. It can be applied to lubrication points found on dozers, scrapers, earthmovers, cranes, shovels, rollers, combines, and cotton pickers. These lubrication points include most types of antifriction bearing arrangements from plain sleeve-types to rolling element bearings, as well as bushings and other sliding surface or pivot point.

PRODUCT ADVANTAGES

- The operating temperature range is from -20°C to 120°C
- The presence of moly provides additional protection against wear
- Excellent load-carrying capacity
- Good resistance against water
- Good mechanical stability
- Good corrosion protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	2	3
Thickener Type	-	Lithium	Lithium
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Dark gray	Dark gray
Work Penetration @25°C,	ASTM D217	265-295	220-250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b Max.	1b Max.
Dropping Point °C, Min	ASTM D2265	180	180
Water Washout Resistance %Wt. @79°C	ASTM D1264	Max 10	Max 10
Four Ball, Load Wear Scar, Mm	ASTM D2266	0.6	0.6
Four Ball Weld Load, Kgf, Min	ASTM D2596	200	200
Dry Lubricant	-	Molybdenum Disulfide	Molybdenum Disulfide
Operating Temperature Range, °C	INTERNAL	-20 to 120	
Base Oil Viscosity @40°C (Cst)	ASTM D445	90 -110	90-110



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LITHIUM COMPLEX
EP 460 GREASE
SYNTHETIC

LITHIUM COMPLEX EP 460 GREASE (SYNTHETIC)

Lithium Complex EP 460 Synthetic grease is an extreme pressure, multi-purpose, semi fluid Lithium Complex formulation fortified with PAO synthetic base oil, polymers, anti-wear agents, tackiness additives, and rust and oxidation inhibitors. This technically advanced grease is specifically designed to perform in a variety of applications and in extreme low temperatures.

APPLICATIONS

Lithium Complex EP 460 Synthetic grease is primarily designed for use in on-road and off-road vehicles for the lubrication of wheel end bearings on trucks and trailers. It is also recommended for leaky gearboxes, as well as heavy equipment applications operating in extreme cold temperatures. It is a premium product for use where NLGI 00 grade greases are recommended. This grease is designed for smooth and reliable operation in pressurized auto grease systems where long lines and exposure to low temperatures can affect grease delivery.

PRODUCT ADVANTAGES

- The operating temperature range is from -30°C to 150°C
- Truck and trailer wheel end bearings where NLGI 00 greases are specified
- Recommended for industrial plain and anti-friction bearings operating at high speed
- Good oxidation stability
- Where ultra-low temperatures limit the mobility and pumpability of heavier grades of grease

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	-	00
Thickener Type	-	Lithium Complex
Appearance	Visual	Smooth & Homogenous
Color	Visual	Ivory
Base Oil Type	-	Synthetic
Work Penetration @25°C,	ASTM D217	400-430
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b
Dropping Point °C, Min	ASTM D2265	240
Water Washout Resistance %Wt @79°C	ASTM D1264	N/A
Four Ball Weld Load, Kgf, Min	ASTM D2596	min 315
Emcor Rust Protection Rating	ASTM D6138	1/1
Operating Temperature Range, °C	INTERNAL	-30 to 150
Base Oil Viscosity @40°C (Cst)	ASTM D445	460



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LITHIUM LC EP
GREASE

LITHIUM LC EP GREASE

Lithium LC EP grease is an extreme pressure grease with high resistance to water washout and protects the lubricated parts against wear and corrosion. This grease is recommended for the lubrication of plain and rolling bearings, operated under high loads and in wet environment. It offers excellent mechanical stability, load carrying capacity, and corrosion protection. This product has been fortified with Ca-12 Hydroxy stearate thickener to offer enhanced water resistance and mechanical stability, which makes this grease a real multipurpose grease.

APPLICATION

Lithium LC EP grease is a widely used extreme pressure grease recommended for the lubrication of plain and rolling bearings, operated under high loads and in wet environment. It is also suitable for commercial vehicle and construction equipment applications, agricultural and off-road applications. NLGI 000, 00, 0, 1 grades are suitable for centralized lubrication system where a semi fluid grease is required.

PRODUCT ADVANTAGES

- The operating temperature range is from -20°C to 130°C
- Very good rust and corrosion protection
- High-load carrying capacity
- Excellent resistance against water
- Very good anti-wear protection
- Good shear and stress stability
- Very good adhesion properties

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE					
		000	00	0	1	2	3
NLGI Grade	-	000	00	0	1	2	3
Thickener Type	-	Lithium					
Appearance	Visual	Smooth & Homogenous					
Color	Visual	Light Brown					
Work Penetration @25°C	ASTM D217	445-475	400-430	355-385	310-340	265-295	220-250
Copper Strip Corrosion For 24hrs @100°C	ASTM D4048	1b max.	1b max.	1b max.	1b max.	1b max.	1b max.
Dropping Point °C, Min	ASTM D2265	N/A	N/A	N/A	180	180	180
Water Washout Resistance %Wt @79°C	ASTM D1264	N/A	N/A	N/A	Max 10		
Emcor Rust Preventive Test	ASTM D2596	200					
Operating Temperature Range, °C	INTERNAL	-20 to 130					
Base Oil Viscosity @40°C (Cst)	ASTM D445	90-110					



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LITHIUM COMPLEX EP
220 GREASE

LITHIUM COMPLEX EP 220 GREASE

Lithium Complex EP 220 grease is made from high viscosity index mineral oils and performance additives to enhance extreme pressure, anti-wear, anti-corrosion and anti-oxidation properties. This grease is recommended for bearings operating under the load at high temperatures. This product is also suitable for use in applications such as continuous casting, quarries, breakers, roller conveyors and automotive wheel bearings.

APPLICATIONS

Lithium Complex EP 220 greas is recommended for bearings operating under the load at high temperatures. It is also suitable for use in applications such as continuous casting, quarries, breakers, roller conveyors and automotive wheel bearings.

PRODUCT ADVANTAGES

- The operating temperature range is from -25°C to 140°C
- Excellent mechanical stability under vibrating conditions
- Excellent extreme pressure properties
- Excellent wear resistance
- High dropping point
- Good corrosion protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE		
NLGI Grade	-	1	2	3
Thickener Type	-	Lithium complex	Lithium complex	Lithium complex
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Blue / Red / Natural		
Work Penetration @25°C	ASTM D217	310-340	265 - 295	220 - 250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b max	1b max	1b max
Dropping Point °C, Min	ASTM D2265	240	240	240
Water Washout Resistance %Wt @79°C	ASTM D1264	max 5	max 5	max 5
Four Ball, Load Wear Scar, Mm	ASTM D2266	0.6	0.6	0.6
Four Ball Weld Load, Kgf, Min	ASTM D2596	min 250	min 250	min 250
Wheel Bearing Leakage After 6hrs @ 105°C, gm	ASTM D1263	max 8	max 8	max 8
Oil Separation, % 30hrs @100°C	ASTM D6184	max 5	max 5	max 5
Operating Temperature Range, °C	INTERNAL	-25 to 140		
Base Oil Viscosity @40°C (Cst)	ASTM 445	220	220	220



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LITHIUM LC MP
GREASE

LITHIUM LC MP GREASE

Lithium LC MP grease is a general-purpose lubricating grease based on Lithium Hydroxystearatesoap thickenerandhigh-quality mineral base oil. This grease contains antioxidants, rust, corrosion inhibitors, and anti-wear additives. The product is recommended for the lubrication of rolling element bearings, electric motor bearings, water pumps, and sealed-for-life bearings. NLGI 1 and NLGI 2 are designed for general industrial lubrication which can be used through centralized lubrication systems operating at normal temperatures. This product has been fortified with Ca-12 Hydroxy stearate thickener to offer enhanced water resistance and mechanical stability.

APPLICATION

Lithium LC MP grease is recommended for the lubrication of rolling-element bearings, electric motor bearings water pumps, and sealed-for-life bearings. NLGI 1 and NLGI 2 are designed for general industrial lubrication which can be used through centralized lubrication systems operating at normal temperatures.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 120°C
- Good oxidation and mechanical stability
- Reliable high-temperature performance
- Long storage life
- Good rust and corrosion protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE		
NLGI Grade	-	1	2	3
Thickener Type	-	Lithium		
Appearance	Visual	Smooth Homogenous		
Color	Visual	Yellow to Brown		
Work Penetration @25°C	ASTM D217	310-340	265-295	220-250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b max	1b max.	1b max.
Dropping Point °C, Min	ASTM D 2265	180	180	180
Water Washout Resistance %Wt @79°C	ASTM D1264	max 10		
Emcor Rust Preventive Test	ASTM D6138	Pass		
Operating Temperature Range, °C	INTERNAL	-20 to 120		
Base Oil Viscosity @40°C (Cst)	ASTM D445	90-110		



LITHIUM CALCIUM EP
GREASE 5% MOLYBDENUM
SYNTHETIC

LITHIUM CALCIUM EP GREASE WITH 5% MOLYBDENUM SYNTHETIC

Lithium Calcium EP Moly 5% is a synthetic grease with 5% MoS₂. This is an extreme pressure, multi-purpose, mining, and construction equipment grease, which offers protection from sustained heavy-duty operations. This advanced, synthetic product offers excellent mobility even in arctic winter conditions. Lithium Calcium EP 5% Moly grease is formulated for excellent all-round performance, balancing mobility, load-carrying capability, and long effective service life.

APPLICATIONS

It is an extreme pressure, multi-purpose, mining, and construction equipment grease, which offers protection from sustained heavy-duty operations.

PRODUCT ADVANTAGES

- The operating temperature range is from -40 to 130
- Outstanding high-temperature oxidation stability
- Excellent extreme pressure properties
- High dropping point
- Effective corrosion protection
- Long operational life

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	0/00	1
Thickener Type	-	Lithium-calcium	Lithium-calcium
Base Oil Type	-	Synthetic	Synthetic
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Colour	Visual	Black	Black
Work Penetration @25°C	ASTM D217	390	310 - 340
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b	1b
Dropping Point °C, Min	ASTM D2265	N/A	180
Four Ball Weld Load, Kgf, Min	ASTM D2596	400	400
Molybdenum Content, %Wt.	ASTM D7303	5	5
Operating Temperature Range °C	INTERNAL	-50 to 130	-40 to 130
Base Oil Viscosity @40°C (Cst)	ASTM D445	150	150



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LITHIUM CALCIUM EP 220
Grease WITH SOLID
LUBRICANT

LITHIUM CALCIUM EP 220 GREASE With Solid Lubricant

Lithium Calcium EP 220 is an extreme-pressure grease containing a solid lubricant. It also has a very high resistance to water washout and protects the lubricated parts against wear and corrosion. This grease is recommended for the lubrication of shock-loaded, heavy duty bearings working in wet conditions. It is also suitable for off-road applications and fifth-wheel lubrication.

APPLICATIONS

Lithium Calcium EP 220 is recommended for the lubrication of shock-loaded, heavy duty bearings working in wet conditions. It is also suitable for off-road applications and fifth-wheel lubrication.

PRODUCT ADVANTAGES

- The operating temperature range is from -25°C to 130°C
- Effective extreme pressure properties
- Enhanced load-carrying and wear protection properties
- Good pumpability
- Good water washout properties

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	-	2
Thickener Type	-	Lithium - Calcium
Base Oil Type	-	Mineral
Appearance	Visual	Smooth & Homogenous
Color	Visual	black
Work Penetration @25°C	ASTM D217	265-295
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b
Dropping Point, °C, Min	ASTM D2265	180
Four Ball Weld Load, Kgf, Min	IP 239	315
Operating Temperature Range °C	INTERNAL	-25 to 130
Base Oil Viscosity @40°C (Cst)	ASTM D-445	220



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LITHIUM COMPLEX
EP GREASE 460

LITHIUM COMPLEX EP GREASE 460

Lithium Complex EP 460 is a mineral oil-based grease with extreme pressure performance. It is recommended for general industrial and automotive applications when loads or temperatures exceed the range of general-purpose greases. It is particularly recommended for grease lubrication of heavy duty, slow moving bearings used in heavy industries e.g. steel, cement, paper, chemical industry and mining.

APPLICATIONS

Lithium Complex EP 460 is particularly recommended for grease lubrication of heavy duty, slow moving bearings used in heavy industries e.g. steel, cement, paper, chemical industry and mining.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 150°C
- High base oil viscosity for slow moving large bearings
- Excellent mechanical stability
- Excellent extreme pressure properties
- Excellent water resistance and effective corrosion properties
- High dropping point

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	-	2
Thickener Type	-	Lithium Complex
Base Oil Type	-	Mineral
Appearance	Visual	Smooth & Homogenous
Color	Visual	Light brown
Work Penetration @25°C	ASTM D217	265-295
Copper Strip Corrosion For 24hrs @100°C	ASTM D4048	1b
Dropping Point °C, Min	ASTM D2265	250
Four Ball Weld Load Kgf, Min,	ASTM D2596	250
Four Ball, Wear Scar Dia, mm, Max	ASTM D2266	0.6
Operating Temperature Range °C	INTERNAL	-20 to 150
Base Oil Viscosity @40°C (Cst)	ASTM D445	460



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LITHIUM COMPLEX
EP 150

LITHIUM COMPLEX EP 150

Lithium Complex EP 150 is a multi-purpose lithium complex-based grease developed for high temperature and long-term performance in industrial and automotive applications. The grease possesses good fretting corrosion protection, good water tolerance, resistance to water wash-out, and reliable corrosion protection combined with excellent mechanical stability and good load-carrying capabilities. It contains EP, rust, and anti-oxidant additives.

APPLICATIONS

Lithium Complex EP 150 is suitable for grease-lubricated bearings at low and high speeds including electric motors, automotive bearings, and various anti-friction bearings in the mining, petrochemical, construction, and steel industries. It has good pumpability properties and can be used in centralized lubrication systems.

PRODUCT ADVANTAGES

- Good high-temperature stability
- Extreme pressure capability
- Resistant to water washout
- Excellent rust and corrosion protection
- Long service life

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE		
		1	2	3
NLGI Grade	-	1	2	3
Thickener Type	-	Lithium complex	Lithium complex	Lithium complex
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Yellowish Brown		
Work penetration @25°C,	ASTM D217	310 - 340	265 - 295	220 - 250
Copper Strip Corrosion for 24hrs @100°C,	ASTM D4048	1b max.	1b max.	1b max.
Wheel Bearing leakage after 6hrs @ 105°C g,	ASTM D1263	max 5	max 5	max 5
Dropping Point °C,	ASTM D566	>250	>250	>250
Four Ball EP, Load Wear Scar, mm	ASTM D2266	0.6	0.6	0.6
Four Ball Weld Load Kgf, Min,	ASTM D2596	250	250	250
Water Washout resistance %WT @79°C,	ASTM D1264	max 5	max 5	max 5
Oil separation %, 30hrs @100°C,	ASTM D6184	max 5	max 5	max 5
Base Oil Viscosity @ 40 °C (cSt)	ASTM 445	150	150	150



マズダ石油
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ANHYDROUS CALCIUM
GREASE

ANHYDROUS CALCIUM GREASE

Anhydrous Calcium soap grease is based on calcium 12-Hydroxystearate soap and high-quality base oil. The soap structure and specially selected additives ensure operating temperatures of 110°C, combined with high resistance against water, very good lubricity, protection against wear and high corrosion resistance.

APPLICATION

Anhydrous Calcium multipurpose economical grease is used for wet environments, sewage plant and machinery, wet industrial machinery, agricultural and farming machinery exposed to water, water pumps and bearings, and slow-moving axle.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 110°C
- Excellent water resistance
- High mechanical stability
- Good Lubricity
- Good shear and stress stability
- Good pumpability

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	2	3
Thickener Type	-	Calcium	Calcium
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Yellow to Brown	Yellow to Brown
Work Penetration @25°C	ASTM D217	265 - 295	220 - 250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b max.	1b max.
Dropping Point °C, Min	ASTM D2265	140	140
Water Washout Resistance %Wt @79°C	ASTM D1264	max 10	max 10
Operating Temperature Range °C	INTERNAL	-20 to 110	
Base Oil Viscosity @40°C (Cst)	ASTM D445	90 - 110	90 - 110



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BENTONITE
GREASE

BENTONITE GREASE

Bentonite grease is made from Bentone clay, highly refined heavy base oil, anti-oxidant and anti-rust additives. It is resistant to water.

APPLICATIONS

Bentonite grease is suitable for use within a very wide temperature range and especially at elevated temperatures for both industrial and automotive applications. The all-round properties make it suitable for various types of bearings, including temperature peaks up to 160°C.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 160°C
- Non-melting thickener keeps consistency at high temperature
- Good water resistance properties
- Good oxidation and thermal stability
- Suitable for heavy and shock loading capabilities
- Good corrosion and rust protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	-	2
Thickener Type	-	Bentone Clay
Base Oil Type	-	Mineral
Appearance	Visual	Smooth & Homogenous
Color	Visual	Brown
Work Penetration @25°C	ASTM D217	265-295
Dropping Point °C, Min	ASTM D2265	Non drop
Operating Temperature Range °C	INTERNAL	-20 to 160
Base Oil Viscosity @40°C (Cst)	ASTM D445	460



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HYDRATED
CALCIUM GREASE

HYDRATED CALCIUM GREASE

Hydrated Calcium grease is a water-resistant calcium-soap thickened lubricating grease of NLGI 2 and NLGI 3 consistency. This is a good quality grease with excellent water resistance and good protection against corrosion.

APPLICATIONS

Hydrated Calcium grease is used in nipples, spring leaves, chain drives, water pump, non-bearing axles, open and semi-open gear systems.

PRODUCT ADVANTAGES

- The operating temperature range is from -10°C to 60°C
- Very good lubricity
- Very good rust and corrosion protection
- Lower cost
- Excellent water washout properties

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	NLGI 2	NLGI 3
NLGI Grade	-	2	3
Thickener Type	-	Calcium	
Appearance	Visual	Smooth & Homogenous	
Color	Visual	Yellow	
Work Penetration @25°C	ASTM D217	265 - 295	220 - 250
Dropping Point °C, Min	ASTM D566	90	90
Operating Temperature Range °C	INTERNAL	-10 to 60	
Base Oil Viscosity @40°C (Cst)	ASTM D445	30 - 40	



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PIN & BUSH
GREASE

PIN & BUSH GREASE

Pin & Bush grease is a well-known, multi-purpose lithium grease. The grease allows the presence of very fine-grade graphite which will fill surfaces and distribute the load evenly preventing further wear and tear. It is suitable for the lubrication of various industrial, agricultural, and earth-moving equipment applications.

APPLICATIONS

Pin & Bush grease is suitable for the lubrication of various industrial, agricultural, and earth-moving equipment applications.

PRODUCT ADVANTAGES

- The operating temperature range is -20°C to 130°C
- High level of lubricating solids that keeps working surfaces apart and substantially extends component life
- Being fully resistant to the wet environment extends the life of the lubricant and protects components from corrosion
- Adhesion improvers provide increased lasting protection

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	2	3
Thickener Type	-	Lithium	Lithium
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Gray/ Black	Gray / Black
Dry Lubricant	-	Graphite	Graphite
Work Penetration @25°C	ASTM D217	265-295	220-250
Copper Strip Corrosion 24hrs @100°C	ASTM D4048	1b	1b
Dropping Point °C, Min	ASTM D2265	180	180
Water Washout Resistance %Wt @79°C	ASTM D1264	max 10	max 10
Four Ball Weld Load, Kgf, Min	ASTM D2596	250	250
Operating Temperature Range °C	INTERNAL	-20 to 130	
Base Oil Viscosity @40°C (Cst)	ASTM D445	220	220

SPECIALTY GREASE





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POLYUREA GREASE
SYNTHETIC

POLYUREA GREASE SYNTHETIC

Polyurea grease is a synthetic, high-performance, and long life product suitable for fill-for-life applications in wide range of industrial applications. This grease is based on synthetic, high-viscosity base stock engineered with performance additives resulting in an outstanding long life, high-performance grease. The product has also excellent water resistance and water washout characteristics. It is recommended for steel, paper, wind power applications as well as heavy duty slow moving plain and rolling element bearings operating in severe environments.

APPLICATIONS

Polyurea synthetic grease is recommended for steel, paper, wind power applications as well as heavy duty slow moving plain and rolling element bearings operating in severe environments.

PRODUCT ADVANTAGES

- The operating temperature range is -30°C to 150°C
- Outstanding high-temperature oxidation stability
- Excellent extreme pressure properties
- High dropping point
- Effective corrosion protection
- Long operational life

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	ASTM D217	1.5	2
Thickener Type	-	Di- Urea	Di- Urea
Base Oil Type	-	Fully Synthetic	Fully Synthetic
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Light Brown	Light Brown
Work Penetration, 60 Strokes, 0.1mm	ASTM D217	305	265-295
Dropping Point °C, Min	ASTM D2265	250	250
Cu Corrosion	ASTM D4048	1b	1b
Oxidation Stability, Drop In Pressure, Psi	ASTM D942	max 5	max 5
Oil Separation, % Wt.	ASTM D6184	max 3	max 3
Operating Temperature Range °C	INTERNAL	-30 to 150	
Base Oil Viscosity @40°C (Cst)	ASTM D445	460	460



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POLYUREA GREASE
NLGI-2 MINERAL

POLYUREA GREASE MINERAL

Polyurea grease NLGI-2 is a multipurpose, high temperature, extreme pressure grease that is specially formulated to provide lubrication for highly loaded ball, roller and plain bearing applications at high temperatures where an extended service life is required. It is also recommended for paper, steel, aluminum, chemical and other industries.

APPLICATIONS

Polyurea grease NLGI-2 is recommended for paper, steel, aluminum, chemical and other industries.

PRODUCT ADVANTAGES

- The operating temperature range is -10°C to 150°C
- Outstanding high-temperature oxidation stability
- Reduced grease consumption at high temperatures
- Protects bearings against wear under conditions of shock loading
- Resists water washing and rusting
- Long operational life

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	ASTM D217	2
Thickener Type	-	Di- Urea
Base Oil Type	-	Mineral
Appearance	Visual	Smooth & Homogenous
Color	Visual	Light Brown
Work Penetration, 0.1 mm	ASTM D217	265-295
Dropping Point, °C, Min	ASTM D2265	>250
Cu Corrosion	ASTM D4048	1b
Oxidation Stability, Drop In Pressure, Psi	ASTM D942	5 max
Heat Stability, % Wt.	ASTM D6184	3 max
Operating Temperature Range °C	INTERNAL	-10 to 150
Base Oil Viscosity @40°C (Cst)	ASTM D445	100



POLYUREA GREASE
NLGI 1.5 MINERAL

POLYUREA GREASE NLGI-1.5 MINERAL

Polyurea grease NLGI 1.5 is an extreme-pressure grease designed to give enhanced lubrication in loaded low to medium-speed industrial bearings, especially in continuous steel casting lines. It is also recommended for the lubrication of high-temperature slow-moving concast bearings in the steel industry. It can also be used in high-temperature, slow-moving bearing applications.

APPLICATIONS

Polyurea grease NLGI 1.5 is designed to give enhanced lubrication in loaded low to medium-speed industrial bearings, especially in continuous steel casting lines. It is also recommended for the lubrication of high-temperature, slow-moving concast bearings in steel industry.

PRODUCT ADVANTAGES

- The operating temperature range is -10°C to +150°C
- Outstanding high-temperature oxidation stability
- Good anti-corrosion properties
- Excellent resistance against water washout
- Long operational life

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE
NLGI Grade	ASTM D217	1.5
Thickener Type	-	Di- Urea
Base Oil Type	-	Mineral
Appearance	Visual	Smooth & Homogenous
Color	Visual	Light Brown
Work Penetration, 0.1mm	ASTM D217	305
Dropping Point, °C, Min	ASTM D2265	250
Cu Corrosion	ASTM D4048	1b
Four Ball Weld Load, Kgf	ASTM D2596	min 250
Emcor Rust Test, Rating	IP 220	0-0
Heat Stability, %Wt.	ASTM D6184	3 max
Operating Temperature Range °C	INTERNAL	-10 to 150
Base Oil Viscosity @40°C (Cst)	ASTM D445	460



ALUMINUM COMPLEX
GREASE SYNTHETIC

ALUMINUM COMPLEX GREASE SYNTHETIC

Aluminum Complex grease is a high-performance, synthetic product developed for use in the food processing industry. It is based on synthetic base oil with Aluminum complex thickener and performance additives. This grease has a strong affinity for metal and it is highly stable when operating with heavy loads at high temperatures. It also has excellent sealing properties and it is ideal for lubricating bearings subjected to high temperatures and pressures.

APPLICATIONS

Aluminum Complex grease is used in bearings that operate at high temperatures, bearings in refrigeration facilities, bearings that require a lubricant with excellent adhesive and sealing properties.

PRODUCT ADVANTAGES

- The operating temperature range is -40°C to 180°C
- Operates at extreme temperatures
- Excellent load-carrying capacity
- Good resistance against water
- Excellent adhesive and sealing properties
- Long-lasting lubrication

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
		1	2
NLGI Grade	-	1	2
Thickener Type	-	Al-Complex	Al-Complex
Base Oil Type	-	Synthetic	Synthetic
Appearance	Visual	Smooth & Homogenous	Smooth & Homogenous
Color	Visual	Ivory	Ivory
Work Penetration @25°C	ASTM D217	310-340	265-295
Dropping Point °C, Min	ASTM D2265	250	250
Four Ball Weld Load, Kgf, Min	ASTM D2596	250	250
Operating Temperature Range °C	INTERNAL	-40 to 180	
Base Oil Viscosity @40°C (Cst)	ASTM D445	100	100



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CALCIUM SULFONATE
COMPLEX GREASE

CALCIUM SULFONATE COMPLEX GREASE

Calcium Sulfonate Complex is a high-performance, heavy-duty lubricating grease based on calcium sulfonate complex thickener system and high-quality heavy mineral base oil. A unique structure of calcium sulfonate complex thickener provides high dropping point, extraordinary extreme-pressure and anti-wear performances, excellent rust protection, superior mechanical stability and superior resistance against water washout.

APPLICATIONS

Calcium Sulfonate Complex grease is used in industrial equipment operating under unfavorable conditions involving water contamination, high loads and/or high temperatures, plain and rolling element bearings operating in corrosive environmental conditions, rolling mills, hot roll cables, continuous casters, ingot buggies and slab mills, steel mill roller bearings, conveyors and gears, marine and heavy mobile equipment exposed to salt water, paper machine wet- and dry-end bearings and hot calendar stacks, automotive wheel bearings and chassis parts.

PRODUCT ADVANTAGES

- The operating temperature range is from -25 to 180°C
- High-load carrying capacity
- Good water resistance properties
- Good oxidation and thermal stability
- Good mechanical stability
- Good rust and corrosion protection
- Excellent EP and anti-wear properties

TYPICAL PROPERTIES:

PARAMETERS	TEST METHODS	TYPICAL VALUE	
NLGI Grade	-	1.5	2
Thickener Type	-	Calcium Sulfonate Complex	
Appearance	Visual	Smooth & Homogeneous	
Color	Visual	Brown	
Work Penetration @25°C	ASTM D217	305	265-295
Copper Strip Corrosion For 24hrs @100 °C	ASTM D4048	1b	
Dropping Point °C, Min	ASTM D2265	260	260
Water Washout Resistance %Wt. @79°C	ASTM D1264	0.3	
Four Ball Weld Load, Kgf, Min	ASTM D2596	500	
Four Ball, Wear Scar, dia, mm	ASTM D2266	max 0.6	
Operating Temperature Range °C	INTERNAL	-25 to 180	
Base Oil Viscosity @40°C (Cst)	ASTM D445	460	460



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