



### Product Description

Shield X EP 000, 00, 0, 1, 2 and 3 products are extreme pressure multi-functional greases formulated with lithium hydroxide monohydrate soap. It contains high quality performance booster to address extreme pressure requirements. Shield X EP Series provide excellent protection against wear, rusting and water washout. Shield X EP 000, 00, 0, 1, 2 and 3 are specially formulated to use both in Automotive and Industrial applications. The recommended operating temperature range is from -10°C to 130°C.

### Features and Benefits

- Outstanding load carrying capacity under shock loading and vibration improving equipment reliability.
- Offers protection against wear in a wide range of temperatures.
- Excellent oxidation stability providing long service life.
- Good rust and corrosion control
- Provide water resistance and bearing protection even in wet environments, helping reduce bearing costs and equipment downtime.
- Good mechanical stability
- Enhanced protection under severe heavy-duty, low-speed operating conditions.

### Applications

- Shield X Series greases are recommended for gearboxes, heavily loaded anti-friction and plain bearings, bushing and pins in industrial and automotive equipment, where conventional greases would be unable to prevent destructive wear of the working surfaces.
- Shield X EP Series grease is suitable for systems where low temperature performance is required; these greases provide good low temperature pumpability. and are suitable for centralized lubrication systems.
- Shield X EP 3 grease is a strong NLGI grade 3 grease recommended for high degree of protection against penetration of water or solid contaminants.



### Typical Characteristics

Product	Shield X EP 000	Shield X EP 00	Shield X EP 0	Shield X EP 1	Shield X EP 2	Shield X EP 3
NLGI No.	000	00	0	1	2	3
Appearance	Homogeneous, Light Brown	Homogeneous, Light Brown	Homogeneous, Light Brown	Homogeneous, Light Brown	Homogeneous, Light Brown	Homogeneous, Light Brown
Texture	Smooth	Smooth	Smooth	Smooth	Smooth	Smooth
Soap Base, Type	Lithium Hydroxide Monohydrate	Lithium Hydroxide Monohydrate	Lithium Hydroxide Monohydrate	Lithium Hydroxide Monohydrate	Lithium Hydroxide Monohydrate	Lithium Hydroxide Monohydrate
Penetration, ASTM D 217 Worked, 60 Strokes	445 - 475	400 - 430	355 - 385	310 - 340	265 - 295	220 - 250
Unworked (ASTM D 217)	-	-	-	< 340	< 295	< 250
Dropping Point, °C ASTM D 566	-160 min	160 min	160 min	160 min	180 min	180 Min
Operating Temperature 0C	-100C to 1300C	-	-10°C to 130°C	-10°C to 130°C	-10°C to 130°C	-10°C to 130°C
EP performance test (ASTM D 2596) Weld point, kgf	200 min	200 min	200 min	200 min	220 min (2157 N)	220 min (2150 N)
Copper Corrosion, (ASTM 4048) 24h at 77°F	1b	1b	1b	1b	1b	1b
Four Ball Wear (ASTM D 2266) (40 kg, 1200rpm, 167oF, one hour) Scar diameter, mm	0.5 max	0.5 max	0.5 max	0.5 max	0.7 max	0.7 max
Oil Separation, weight in %w, 18 hrs. at 1040F (IP 121)	-	-	-	-	5 max	5 max
Water washout in (weight in %w) (600±30 rpm for 1 hour at 100.40F) (ASTM D 1264)	-	-	-	-	15 max	15 max
Leakage tendencies in g Deposit on Bearing Surface (ASTM D 1263) at 660±30 rpm for 6hrs @ 2210F	-	-	-	-	5 max	5 max
Oxidation Stability (psi) @ 2120F for 100 hrs (ASTM D 942)	-	-	-	-	10 psi	10 psi
Shell roll (0.1mm) at 18hrs @1490F (ASTM D 1831)	-	-	-	-	100 max	100 max

### Health & Safety

Based on the available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office. This product should not be used for purposes other than its intended use.