

# POWERMAXX LUBE INDIA

## CEMENT INDUSTRY

Heavy-Duty & High Performance Specialized Lubricants for Cement Industry Processing Equipment.

- Synthetic and Petroleum-Based
- Heavy-Duty Multi-Purpose & Speciality Greases
- Heavy-Duty Gear Oils
- Open Gear Greases
- Earth Moving Equipments & On-Road Vehicles lubricants

Increasing Plant & Equipment Reliability, Sustainability for Value & Creating Cost Savings all along with Process. Non-bituminous, Non-toxic additive & Environment Eco-friendly lubricants

## CEMENT INDUSTRY PROCESSING

APPLICATION / EQUIPMENT	FEATURES / BENEFITS & ADVANTAGES	POWERMAXX RECOMMENDED SOLUTION
<b>EQUIPMENT PROCESS EQUIPMENT / MOBILE EQUIPMENT</b>		
<b>Diesel Engine Oil</b>	Protects against oxidation, and high temperature deposits and bore polishing, extremely high control over soot, wear, rust and corrosion to reduce the engine servicing. Extended drain interval capability fewer oil changes and less oil disposal	SYNTH ENGINE OIL: CJ-4/SN, CK-4, CJ-4, CI-4+ 15W40, 10W40, 10W30, (Synthetic & Semi-Synthetic Gasoline & Diesel Engine Oil)
<b>Transmission and Drivetrains System</b>	Effective control of engine wear, varnish, deposits and sludge for cleaner engines, Maintain consistent oil film strength for optimum power output and minimize oil consumption.	TRANS SAE 10W/30/40/50/80W (UTTO), TQ-ATF D-III
<b>Automotive Gears and Axles</b>	Protects inhibits rust, corrosion, foaming and wear to protect against premature bearing failure and gear tooth wear, protection against surface stress & excellent load carrying ability	GEAR OIL GL-5 80W90, 140, 85W140, SYNTHETIC GEAR OIL: 75W80, 75W90, 75W140
<b>Hydraulic System</b>	Low foaming, anti-wear protection, corrosion & rust protection & filterability performance extended equipment life	HYDRO AW, HLP, HVI & Zinc Free
<b>Bearing Greases: Pin / Bushes / Plain &amp; Rolling / Hub &amp; wheel bearings</b>	Synergetic & mineral based lithium & lithium complex grease with EP/AW additive, water resistant with good shear & mechanical stability. Reduced wear under heavy shock loads and vibration for good equipment reliability and availability for multifunctional applications	LONGLIFE GEL XL-3, MP3 LONGLIFE, AP3, PD LCX-3, PD LCX-222 MOLY 777 LCX-2 460 HD,
<b>Hydraulics Excavator Hammer, Breakers, Pins &amp; bushings Shovel, Dosser</b>	Structural stability, resistance to water washout and effective protection from wear and corrosion, extremely low coefficient of friction even under extreme pressures	HT 800 CHISEL PASTE
<b>Anti-Seize for Dumpers / Holpack Flange Nut Bolt</b>	Copper based high performance antiseize compound for maintaining the creeping, protects against carbon fusion, minimizes parts replacement costs, enables faster disassembly when repairs are needed	COPAZ-B2 (Copper Anti-Seize Paste)
<b>CRUSHER EQUIPMENT</b>		
<b>Cone &amp; Conveyor (Enclosed Gear Box)</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	SYNTHETIC HD TECHGEAR EP GL-5 - 150, 220, 320, 460 (PAO Based)
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	MPR GEARMAX - 150, 220, 320, 460 (Micro-Pitting Resistance)
	Synergetic & mineral based lithium & lithium complex grease with EP/AW additive, water	PD LCX-222 / SPECIAL EP CRUSHER 2.5 HD

<b>Jaw Crusher &amp; Conveyor Roller Bearings</b>	resistant with good shear & mechanical stability. Reduced wear under heavy shock loads and vibration for good equipment reliability and availability for multifunctional applications	EP, EPL-2, LANTEX EP-2, AP3, EP-3, MP3 LONGLIFE, LONGLIFE GEL XL-3
<b>Cone Crusher</b>	Synergetic lithium complex high temperature grease with moly and EP/AW additives, high shock loads & water resistant grease with good shear stability for multifunctional applications	<b>MOLY 777 LCX-2 460 HD</b> (Semi Synthetic Heavy Duty Grease)
<b>VSI (Vertical Shaft Impactor)</b>	Synergetic lithium complex high temperature grease with extremely passive film on friction surfaces forming a stable lubricant film to withstand, oxidation & mechanical stability, high shock loads, high protection by minimizing metal-to-metal contact and reduces friction	<b>PD-2 SYNTH</b>
<b>Vibrating Screen</b>	Synergetic lithium complex high temperature grease with moly and EP/AW additives, high shock loads & water resistant grease with good shear stability for multifunctional applications	<b>SYNTH HT LCX-2 460 HD</b> (special heavy duty grease)
		<b>MOLY 777 LCX-2 460 HD</b> (Semi Synthetic Heavy Duty Grease)
<b>Conveyor chain</b>	Synthetic high temperature chain oil with EP and AW properties along with paint compatibility.	<b>SYNTH CHAIN OIL - 32, 150, 150M, 220M, 220, 320</b>
<b>RAW MATERIAL PREPARATION GRINDING (Vertical Raw Mill / Horizontal Ball Mill)</b>		
<b>Gear Boxes &amp; Rollers</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	<b>SYNTHETIC HD TECHGEAR EP GL-5 - 150, 220, 320, 460 (PAO Based)</b>
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	<b>MPR GEARMAX - 150, 220, 320, 460</b> (Micro-Pitting Resistance)
<b>Bearings in Boiler</b>	Long life synergetic polyurea high temperature grease with good pumpability extended re-lubrication intervals, water resistance, corrosion protection in plain & anti-friction bearings	<b>SYNTH POLYTHERM -2 460</b>
<b>Open gears</b>	Synergetic heavy duty open gear & rotary mills grease with high purity graphite and extreme pressure additives that help prevent excessive wear, squeeze out & ratio change. Withstand high shock loads and pressures.	<b>G-ALX HTXX-0-000 2500 HD</b> (Aluminum-Complex + Graphite)
	Synergetic premium grade spray able fluid for heavy duty open gear & rotary mills that prevents scoring, scuffing, galling, clawing, pitting, sliding and slipping.	<b>OGL 18K FLUIDPRESS HD</b> (Heavy duty & Biodegradable Fluid)
<b>Gear Couplings</b>	Synergetic lithium & lithium complex high temperature grease with moly and EP/AW additives, high shock loads & water resistant grease with good shear stability for multifunctional applications	<b>MOLEX EP-2 HD / MOLY HT LCX-220 PLUS HD</b>
<b>Hydraulic System</b>	Low foaming, anti-wear protection, corrosion & rust protection & filterability performance extended equipment life	<b>HYDRO AW, HLP, HVI &amp; Zinc Free</b>
<b>PRE-HEATING TOWER</b>		
<b>Blower Fan bearings</b>	Long life synergetic polyurea high temperature grease with good pumpability extended re-lubrication intervals, water resistance, corrosion protection in plain & anti-friction bearings	<b>SYNTH POLYTHERM -2 460</b>
<b>POWER GENERATION</b>		
<b>Turbines</b>	Rust and corrosion protection & Rapid water separation keeps water in oil to a minimum	<b>TURBINE OIL - 46 &amp; 68</b>
<b>Air compressors</b>	Excellent heat conduction properties & separation from air and minimum foaming tendency in critical high temperature areas	<b>SYNTH AIR COMPRESSOR OIL-46, 68, 100, 150, 220 (Synthetic)</b>
<b>ROTARY KILN</b>		
	Synergetic heavy duty open gear & rotary mills grease with high purity graphite and extreme pressure	

<b>Open gears</b>	additives that help prevent excessive wear, squeeze out & ratio change. Withstand high shock loads and pressures.	<b>G-ALX HTXX-0-000 2500 HD</b> (Aluminum-Complex + Graphite)
	Synergetic premium grade spray able fluid for heavy duty open gear & rotary mills that prevents scoring, scuffing, galling, clawing, pitting, sliding and slipping.	<b>OGL 18K FLUIDPRESS HD</b> (Heavy duty & Biodegradable Fluid)
<b>Gear Boxes</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	<b>SYNTHETIC HD TECHGEAR EP GL-5 - 150, 220, 320, 460 (PAO Based)</b>
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	<b>MPR GEARMAX - 150, 220, 320, 460</b> (Micro-Pitting Resistance)
<b>Gear Couplings</b>	Synergetic lithium & lithium complex high temperature grease with moly and EP/AW additives, high shock loads & water resistant grease with good shear stability for multifunctional applications	<b>MOLEX EP-2 HD /</b> <b>MOLY HT LCX-220 PLUS HD</b>
<b>Support Rollers bearings</b>	Synergetic heavy duty lithium calcium grease fortified with Moly & EP/AW additives for water resistant, high shock loads carrying and high temperature with good pumpability	<b>MOLY LI-CAM EP 1400 HD</b> (Heavy duty water resistance grease)
<b>Electric Motor</b>	Long life synergetic high temperature grease with extended relubrication intervals for high speed applications.	<b>SYNTH POLYTHERM-2.5 100/ PD</b> <b>UNIRAX N-3</b>
<b>CLINKER COOLER</b>		
<b>Blower bearings</b>	Long life synergetic polyurea high temperature grease with good pumpability extended re-lubrication intervals, water resistance, corrosion protection in plain & anti-friction bearings	<b>SYNTH POLYTHERM -2 460</b>
<b>Cooler grid bearings</b>	Synergetic lithium complex high temperature grease with EP/AW, high shock loads, water resistant with good shear stability & pumpability for multifunctional applications	<b>PD LCX-222</b>
<b>Gear Boxes</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	<b>SYNTHETIC HD TECHGEAR EP GL-5 - 150, 220, 320, 460 (PAO Based)</b>
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	<b>MPR GEARMAX - 150, 220, 320, 460</b> (Micro-Pitting Resistance)
<b>ROLLER PRESS</b>		
<b>Gear Boxes</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	<b>SYNTHETIC HD TECHGEAR EP GL-5 - 150, 220, 320, 460 (PAO Based)</b>
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	<b>MPR GEARMAX - 150, 220, 320, 460</b> (Micro-Pitting Resistance)
<b>Bearings</b>	Synergetic lithium complex high temperature grease with EP/AW, high shock loads, water resistant with good shear stability & pumpability for multifunctional applications	<b>PD LCX-222</b>
<b>GRINDING / FINISHING (Ball Mill / Horizontal Mill)</b>		
<b>Open gears:</b>	Synergetic heavy duty open gear & rotary mills grease with high purity graphite and extreme pressure additives that help prevent excessive wear, squeeze out & ratio change. Withstand high shock loads and pressures.	<b>G-ALX HTXX-0-000 2500 HD</b> (Aluminum-Complex + Graphite)

	Synergetic premium grade spray able fluid for heavy duty open gear & rotary mills that prevents scoring, scuffing, galling, clawing, pitting, sliding and slipping.	<b>OGL 18K FLUIDPRESS HD</b> (Heavy duty & Biodegradable Fluid)
<b>Gear Boxes</b>	High temperature synthetic gear oils with good AW and EP characteristics. Protects against oxidation, foaming and high temperature deposits.	<b>SYNTHETIC HD TECHGEAR EP GL-5</b> (PAO Based) - 150, 220, 320, 460
	Advanced micropitting protection synergetic gear oil formulated with ultra-high performance EP additive and high quality synergetic base oil. Protects against oxidation, foaming, high temperature deposit & heavy-duty gear boxes operating in harsh conditions.	<b>MPR GEARMAX - 150, 220, 320, 460</b> (Micro-Pitting Resistance Gear Oil)
<b>Bearings</b>	Synergetic lithium complex high temperature grease with EP/AW, high shock loads, water resistant with good shear stability & pumpability for multifunctional applications	<b>PD LCX-222</b>
<b>Turbines</b>	Rust and corrosion protection & Rapid water separation keeps water in oil to a minimum	<b>TURBINE OIL - 46 &amp; 68</b>
<b>SILOS</b>		
<b>Blower bearings</b>	Long life synergetic polyurea high temperature grease with good pumpability extended re-lubrication intervals, water resistance, corrosion protection in plain & anti-friction bearings	<b>SYNTH POLYTHERM -2 460</b>

## **PRODUCT SPECIFICATIONS**

### **GREASE SPECIFICATIONS**

<b>Product</b>	<b>Thickener / Base Oil Type</b>	<b>Viscosity @ 40°C cSt</b>	<b>NLGI</b>	<b>Drop Point °C</b>	<b>Operating Temp °C</b>
<b>EP, EPL-2, LANTEX EP-2, AP3, EP-3, MP3 LONGLIFE</b>	Special Lithium / Mineral	130 to 180	2 / 3	+ 190	-10 to 130
<b>SPECIAL EP CRUSHER 2.5 HD</b>	Special Lithium / Mineral	220	2.5	+220	-10 to 140
<b>LONGLIFE GEL XL-3,</b>	Lithium Complex / Mineral	150	2	+265	-20 to 160
<b>PD-2 SYNTH</b>	Lithium Complex / Synergetic	100	2	+265	-20 to 160
<b>PD Unirax N-3</b>	Lithium Complex / Synergetic	100	3	+265	-20 to 160
<b>PD LCX-3</b>	Lithium Complex / Synergetic	220	3	+265	-20 to 160
<b>PD LCX-222</b>	Lithium Complex / Synergetic	220	2	+265	-20 to 160
<b>SYNTH HT LCX-2 460 HD</b>	Lithium Complex / Synergetic	460	2	+265	-20 to 160
<b>MOLEX EP-2 HD</b>	Lithium + Moly/ Synergetic	220	2	+190	-20 to 140
<b>MOLY HT LCX-220 PLUS HD</b>	Lithium Complex + Moly / Synergetic	220	2	+265	-20 to 160
<b>MOLY 777 LCX-2 460 HD</b>	Lithium Complex / Synergetic	460	2	+265	-20 to 160
<b>SYNTH POLYTHERM -2 460</b>	Polyurea / Synergetic	460	1	+280	-20 to 180
<b>SYNTH POLYTHERM-2.5 100</b>	Polyurea / Synergetic	100	2.5	+280	-20 to 180
<b>MOLY LI-CAM EP 1400 HD</b>	Metal complex / Synergetic	1400	2	+200	-20 to 160

<b>G-ALX HTXX-0-000 2500 HD</b>	<b>Aluminum Complex / Synergetic</b>	<b>2500</b>	<b>0/00</b>	<b>+280</b>	<b>-20 to 180</b>
<b>HT 800 CHISEL PASTE</b>	<b>Special Metal Complex / Mineral</b>	<b>1000</b>	<b>2</b>	<b>None</b>	<b>-20 to 1100</b>
<b>COPAZ-B2 (Copper Anti-Seize Paste)</b>	<b>Special Metal Complex / Mineral</b>	<b>1000</b>	<b>2</b>	<b>None</b>	<b>-20 to +1200</b>

### OIL SPECIFICATIONS

<b>Product</b>	<b>Base Oil Type</b>	<b>Base Oil Viscosity @ 40°C cSt</b>	<b>Copper Corrosion</b>	<b>Pour Point °C</b>	<b>Flash Point °C</b>
<b>OGL 18K FLUIDPRESS HD</b>	<b>Synergetic</b>	<b>18000</b>	<b>1b</b>	<b>-10</b>	<b>+200</b>
<b>SYNTHETIC HD TECHGEAR EP GL-5</b>	<b>Fully Synthetic</b>	<b>150/220/320/460/680</b>	<b>1b pass</b>	<b>-45</b>	<b>250</b>
<b>MPR GEARMAX (Micro-Pitting Resistance)</b>	<b>Synergetic</b>	<b>150/220/320/460/680</b>	<b>1b pass</b>	<b>-19</b>	<b>240</b>
<b>HYDRO AW, HLP, HVI &amp; Zinc Free</b>	<b>Mineral</b>	<b>46 / 68 / 100</b>	<b>--</b>	<b>-39</b>	<b>240</b>
<b>GEAR OIL GL-5 80W90, 140, 85W140,</b>	<b>Mineral</b>	<b>190 to 430</b>	<b>1b pass</b>	<b>-18</b>	<b>225</b>
<b>SYNTHETIC GEAR OIL: 75W80, 75W90, 75W140</b>	<b>Fully Synthetic</b>	<b>9 to 15</b>	<b>1b pass</b>	<b>-45</b>	<b>232</b>
<b>SYNTH ENGINE OIL: CJ-4/SN, CK-4, CJ-4, CI-4+ 15W40, 10W40, 10W30</b>	<b>Synergetic</b>	<b>80 - 120</b>	<b>--</b>	<b>-30</b>	<b>235</b>
<b>TRANS SAE 10W / 30 / 40 / 50 / 80W (UTTO) / TQ-ATF D-III</b>	<b>Mineral</b>	<b>30 to 130</b>	<b>--</b>	<b>-45</b>	<b>+255</b>
<b>SYNTH CHAIN OIL</b>	<b>Fully Synthetic</b>	<b>32, 150, 150M, 220M, 220, 320</b>	<b>1a pass</b>	<b>-20</b>	<b>+290</b>
<b>SYNTH AIR COMPRESSOR OIL</b>	<b>Fully Synthetic</b>	<b>32/46/68/ 100/150/220</b>	<b>1a</b>	<b>-50</b>	<b>260</b>
<b>TURBINE OIL</b>	<b>Mineral</b>	<b>46 &amp; 68</b>	<b>1b pass</b>	<b>-24</b>	<b>240</b>