

SL123R UNITHERM

India's First and Only True Synthetic · High Load · High Temperature Grease to Prevent Failures in Gear Couplings and Heavy-Duty Drives

Gear Coupling & Heavy Drive Applications in a Pulp & Paper Mill

Paper mills run the hardest-working gear couplings in any continuous-process plant — refiner drive couplings carry full torque at low speed with pulp fibre loading; recovery boiler ID fan couplings run at high temperature; paper machine drive couplings face steam, heat, and continuous duty. Refiner couplings are the textbook high-load application. Ordinary EP grease fails within a year; SL123R UNITHERM holds under combined load and heat.

Part A — Annual Cost of Gear Coupling & Drive Failures — 600 TPD Integrated Mill

- **Coupling life:** ordinary EP grease delivers 1–2 years on refiner and recovery boiler fan couplings against 5+ year design life.
- **Coupling + drive spares: ₹20–40 lakh/year.** Refiner drive spindles and recovery boiler fan couplings are high-value spares.
- **Maintenance labour: ₹8–15 lakh/year.** Refiner re-alignment is specialised; paper machine drive alignment requires machine downtime.
- **Machine downtime: ₹1–3 cr/year — the dominant cost.** Refiner coupling failure halts pulp supply to the machine; paper machine drive coupling failure stops the machine.
- **Total: ₹1.5–4 cr/year per 600 TPD mill.** A true synthetic high-load, high-temperature grease delivers 3–4× coupling life and addresses ₹60 lakh–2 cr/year.

Part B — Gear Coupling & Heavy Drive Applications

- **Pulp Refining** — primary refiner drive coupling; secondary refiner drive coupling; disc refiner drive spindles.
- **Recovery Boiler** — recovery boiler ID fan drive coupling; FD fan drive coupling; smelt spout cooling fan drive.
- **Limekiln** — limekiln main drive coupling; limekiln pinion drive; product cooler drive.
- **Paper Machine** — wire section drive couplings; press section drive couplings; dryer section drive couplings; calender drive couplings.
- **Winder & Finishing** — jumbo winder drive coupling; rewinder drive couplings; sheeter drive couplings.
- **Wood Yard** — chipper drive coupling; debarker drive couplings; log handling drive couplings.
- **Bleach Plant** — chemical mix pump drive couplings; washer drive couplings; oxygen reactor drive.
- **Black Liquor Evaporation** — evaporator recirculation pump drive; concentrator drive couplings.
- **Captive Power Plant (Coal / Biomass)** — TG shaft coupling; BFP drive couplings; boiler fan drive couplings.
- **Utilities** — cooling tower fan gearbox drives; high-pressure pump drive couplings; ETP aerator drive couplings.

Request a free 90-day plant trial — your reliability data will speak for itself.

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