

CIM Ultra LiCa EP TMG Grease

Product Overview

CIM Ultra LiCa EP Semi-Fluid Grease is a semi-fluid, lithium–calcium grease formulated for heavy-duty gear lubrication where high load protection, strong adhesion, and resistance to water contamination are required. It uses carefully selected base oils and an EP additive system to support reliable film strength, oxidation control, and corrosion protection across demanding operating environments.

Applications

Recommended for:

- Traction motor gear cases on locomotives, including modern high-horsepower units (General Motors Electromotive diesel & General Electric Locomotive)
- Open gear lubrication systems such as slush pans and open reservoirs (e.g., tube mills, rail car tipplers)
- Enclosed gear cases across industrial plant where a semi-fluid grease is preferred
- Gear services from lightly loaded small open gears through to heavily loaded, slow-speed industrial gears (cement/rotary mills, shovels, rubber/plastic mills, large presses)

Operating temperature guidance: -20°C to +120°C, with short-term peaks up to +130°C.

Performance Features

- Cold-condition feed and pumpability: supports lubrication systems where flow at lower temperature is important
- High load / shock-load capability: EP additives help maintain a protective lubricant film under severe gear loading
- Corrosion protection in wet service helps protect metal surfaces even when moisture is present
- Water resistance: continues lubricating effectively in conditions where water wash-off can occur
- Thermal & oxidation stability: formulated to resist oxidation and reduce hardening at elevated temperatures

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Characteristic	Test Method	Typical Value
Thickener Type	—	Lithium / Calcium
NLGI Grade	ASTM D217	3
Colour	Visual	Brown
Worked Penetration (60 strokes), 0.1 mm	ASTM D217	245
Penetration Change (100,000 strokes), max, 0.1 mm	ASTM D217	15
Oil Separation, max, % mass	ASTM D1742	0.8
Dropping Point, °C	ASTM D2265	390
4-Ball Wear Scar, max, mm	ASTM D2266	0.40
4-Ball EP Weld Load, min, kgf	ASTM D2596	315
Roll Stability, % penetration change, max	ASTM D1831	5
Water Washout, max, %	ASTM D1264	2
Rust Protection	ASTM D1743	Pass
Base Oil Viscosity @40°C, cSt	ASTM D445	2000

Performance Classifications

- **DIN 51502:** GPHC0.5K-20
- **ISO 12924:** L-XB(F)CHB0.5

Storage, Handling & Safety

Use normal industrial hygiene practices. Avoid extended skin contact, wash with soap and water after handling. Prevent product from entering drains, soil, or waterways.

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CIM Lubricants PTY (Ltd) - 486 Taljaard Street , Hermanstad Pretoria , South Africa P.O Box 11053 Suiderberg 0055

Technical Help Line 060 428 8103 / Customer Service 012 377 2507

www.cimlubricants.com

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