

PETRONAS GREASE LiCa TMG

Lithium Calcium Industrial Grease

PETRONAS Grease LiCa TMG is a Lithium Calcium grease specially developed for lubricate the traction motor gear cases of all locomotives including the latest high horsepower units. Formulated with selected semi synthetic base oils enhanced with Lithium Calcium soap, advanced extreme pressure, anti-oxidant, anti-rust, and corrosion inhibitor additives. PETRONAS Grease LiCa TMG provides excellent oxidation stability, high load carrying capabilities, and long-lasting protection over a wide range of environmental conditions and equipment requirements.

PETRONAS Grease LiCa TMG meets or exceeds key industrial specifications.

Applications

PETRONAS Grease LiCa TMG is recommended for use in:

- traction motor gear cases of all locomotives including the newest, high horsepower units
- slush pans and open reservoirs of open gear applications of all sizes such found in tube mills and rail car tippers. Can also be used in various enclosed gear cases used throughout industry
- services ranging from small, lightly loaded open gears of machine tools or small presses to heavily loaded gears such as those of cement and other rotary mills, shovels, plastic or rubber mills and large presses
- application at high temperatures up to 120°C heavy loads and low speeds.

Note: PETRONAS Grease TMG is recommended for operating temperature range of -20°C to +120°C (Max. +130°C).

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Features and Benefits

| Features | Benefits |
|---|--|
| Excellent pumpability | Excellent performance where low temperature performance is required |
| Excellent load carrying capacity | Contains special additives which enables the grease to withstand heavy loads without losing the lubricant film |
| Excellent rust & corrosion protection | Protects metal surfaces against corrosion, even when the grease is contaminated with water |
| Excellent resistance to water wash-out | Equipment protection and good lubrication even in presence of water |
| Excellent thermal and oxidation stability | Has excellent oxidation resistance and can withstand high operating temperatures without hardening. |

Typical Properties

| Characteristic | Method | Specification | LiCa TMG |
|--|------------|--------------------|--------------------|
| Thickener Type | - | Lithium Calcium | Lithium Calcium |
| NLGI | ASTM D217 | 0.5 | 0.5 |
| Color | Visual | Brown | Brown |
| Worked Penetration, mm/10 | ASTM D217 | 355 - 385 | 365 |
| Worked Penetration 100.000x, Penetration Change, mm/10, Max. | ASTM D217 | 20 | 15 |
| Oil Separation, Mass %, Max. | ASTM D1742 | 5 | 3 |
| Dropping Point, °C, Min. | ASTM D2265 | 180 | 185 |
| Four Ball Wear, mm, Max. | ASTM D2266 | 0,50 | 0,40 |
| Four Ball EP Weld Point, Min. | ASTM D2596 | 315 | 315 |
| Roll Stability, % of Penetration Change, Max. | ASTM D1831 | 10 | 5 |
| Water Washout, %, Max. | ASTM D1264 | 8 | 2 |
| Rust Protection, rating | ASTM D1743 | Pass | Pass |
| Base Oil Viscosity @40°C, cSt | ASTM D445 | 1950 - 2050 | 2000 |

All technical data are provided for reference only / SS is available upon request including quality control limits

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Performance Levels

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

Health, Safety and Environment

This product is unlikely to present any significant health and safety hazards when used in the recommended application. Avoid contact with skin. Wash immediately with soap and water after skin contact. Do not discharge into drains, soil or water.

For further detail regarding storage, safe handling, and disposal of product, please refer to product SDS or contact us at: www.pli-petronas.com.

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