

# Petronas Grease LiCa TMG

## Semi Synthetic Industrial Gear Grease



Synthetic



Extreme Pressure



Corrosion Protection



Water Resistant

### Description

**Petronas Grease LiCa TMG** is a lithium-calcium polymer thickened gear grease fortified with synthetic components. It provides long lasting protection over a wide range of environmental conditions and equipment requirements. It is formulated without a diluent, residues and asphalt for better oxidation stability and environmental acceptance and remains fluid at normal ambient temperatures.

**Petronas Grease LiCa TMG** remains fluid at normal ambient temperatures as well as low temperatures thus allowing for lower torque start up.

### Applications

**Petronas Grease LiCa TMG** is specifically designed to lubricate the traction motor gear cases of all locomotives including the newest, high horsepower per axle units.

It is also recommended for use in slush pans and open reservoirs. It leaves a liquid residual film and can be applied by brush or paddle, force-feed, drip-feed and spray. It is designed primarily for open gears and pinions of all sizes such as those found in tube mills and rail car tipplers. Furthermore it is an excellent grease lubricant for various enclosed gear cases used throughout industry.

It is recommended for 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. This product finds application at high temperatures up to 120 °C heavy loads and low speeds. It is also recommended for marine open gears.

Gear tooth surfaces must be well cleaned if an asphalt / solvent based type lubricant was used previously, or a proper lubricating film will not be achieved.

Continuous operating temperature range from

- -20°C to +120°C
- Short term exposure up to 150°C.

### Features & Benefits

- Meets **GE D50E8C specification**
- Meets **EMD EMS 1026 Type A specification**
- Lower drag coefficient compared to asphalt based compounds
- Easy cleaning compared to asphalt based compounds

## Product Data Sheet

Effective Date 01.01.2015 Version 1.0

**PETRONAS**  
High Performance Grease



- Excellent gear protection.
- Extreme pressure capability with high film strength – excels under boundary conditions.
- Outstanding rust and corrosion protection.
- Outstanding oxidation resistance - long service life.
- Water resistant.
- Good adhesive properties.
- Good thermal and mechanical stability.
- Low temperature fluidity.
- Wide choice of application methods

### Typical Properties

	Test Method	Unit	Petronas Grease LiCa TMG
DIN classification	DIN 51502		GPHC0.5K-20
ISO classification	ISO 12924		L-XC(F)CHB0.5
NLGI Grade	ASTM D217		0.5
Thickener Type			Lithium Calcium
Colour	Visual		Brown
Penetration, @ 25°C Worked	ASTM D217	0.1 mm	365
Dropping Point	IP 396	°C	185
Base Oil Type			Semi Synthetic
Viscosity of Base Oil @ 40°C	ASTM D445	cSt	2000
4-Ball Weld Load	DIN 51350:4	N	3400
4-Ball Wear Scar 40kg/1hr	DIN 51350:5	mm	0.4
20,000 Strokes Worked Penetration	ASTM D217	% Change	10
Shell Roll Stability – 24hrs	ASTM D1831	% Change	10
Density	IP PM-CS/03	g/ml	0.90

### Health & Safety

Based on 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 Safety Data Sheet (SDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment. Due to continual product research and development, the information contained herein is subject to change without notification.