



# TEGRA<sup>®</sup> SYNTHETIC GEAR LUBRICANTS (ISO)

## ISO 150, 220, 320, 460, 680

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### PRODUCT DESCRIPTION

Tegra<sup>®</sup> Synthetic Gear Lubricants are high quality industrial EP gear lubricants.

### CUSTOMER BENEFITS

Tegra Synthetic Gear Lubricants deliver value through:

- **Excellent thermal and oxidation stability** — The synthetic hydrocarbon base oils used in these products provide outstanding stability promoting long lubricant and equipment life.
- **High viscosity index and low pour point** — These result in very broad operating temperature ranges -46°C to 149°C (-50°F to 300°F) when compared with conventional mineral oil based lubricants.
- **Energy savings** — The synthetic base oil will typically increase gear efficiency, resulting in less power consumption.
- **Extended drain intervals** — Long lubricant life, low maintenance costs and reduced used oil disposal when compared to mineral oil products.
- **Compatibility** — Tegra Synthetic Gear Lubricants are compatible with most mineral oil based industrial EP/R&O gear lubricants, as well as with most PAO based synthetic industrial EP and R&O gear lubricants.

### FEATURES

Tegra Synthetic Gear Lubricants are high quality industrial EP gear lubricants.



Tegra Synthetic Gear Lubricants are developed from an advanced formulation that provides exceptional load carrying and antiwear properties; protection against rust, corrosion, foaming, and oxidation; and excellent demulsibility. This formulation provides outstanding performance in most types of industrial gearboxes, exemplified by the FZG pass stage results of >12.

These products possess very high shear stability even under heavily loaded, high speed conditions in industrial gears.

The low pour point and very good low temperature fluidity of Tegra Synthetic Gear Lubricants provide excellent lubrication during startup at sub-zero temperatures, while their exceptional viscosity-temperature characteristics provide dependable lubrication at high temperatures.

A unique property of the synthetic base oil is a low traction coefficient, resulting in improved gear efficiency, energy savings, less friction, less wear, and lower operating temperatures compared to conventional mineral oil products.

Due to the very high viscosity index, these products provide a higher oil viscosity at operating temperature than a mineral oil product of the same ISO grade. This results in increased oil film thickness and better antiwear protection for both bearings and gears.

Drain intervals can be extended longer than conventional mineral oil products. That means fewer oil changes, reduced maintenance costs, and less used oil disposal.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A Chevron company product

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## APPLICATIONS

Tegra® Synthetic Gear Lubricants are recommended for many types of enclosed industrial gearboxes, especially those running continuously at temperatures up to 107°C (225°F) or exposed to very cold temperatures as low as -46°C (-50°F), or under severe service conditions, such as heavy loads or low speeds. These products also provide excellent protection for bearings operating under similar conditions.

They can promote long service life for applications where mineral oil products deteriorate too rapidly or lead to premature failures.

Tegra Synthetic Gear Lubricants meet the requirements of:

- **AGMA** 9005 and qualify as AGMA EP gear lubricants
- **DIN** 51517-3 (CLP)
- **Joy** TO-SMEP (ISO 220) and TO-SHEP (ISO 320)
- **U.S. Steel 224**

Tegra Synthetic Gear Lubricants meet the requirements of **MAG Cincinnati, Cincinnati Machine** P-35 (ISO 460), P-59 (ISO 320), P-74 (ISO 220), P-77 (ISO 150).

## TYPICAL TEST DATA

ISO Grade	150	220	320	460	680
Product Number	210452	233917	210453	233916	210454
MSDS Number	6699	6699	6699	6699	6699
AGMA Grade	4 EP	5 EP	6 EP	7 EP	8 EP
API Gravity	34.4	33.8	33.2	32.7	32.1
Viscosity, Kinematic cSt at 40°C cSt at 100°C	142 19.9	209 26.9	304 35.8	437 47.0	646 63.0
Viscosity, Saybolt SUS at 100°F SUS at 210°F	728 100	1075 132	1570 174	2267 227	3366 304
Viscosity Index	162	164	165	166	168
Flash Point, °C(°F)	242(468)	240(464)	240(464)	240(464)	242(468)
Pour Point, °C(°F)	-51(-60)	-51(-60)	-39(-38)	-36(-33)	-30(-22)
Rust Test, ASTM D665A and B	Pass	Pass	Pass	Pass	Pass
Four-Ball EP Weld, ASTM D2783, kg	250	250	250	250	250
Timken OK Load, lb	95	95	95	95	95
FZG, Fail Load Stage	>12	>12	>12	>12	>12

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.