



Castrol Optigear EP

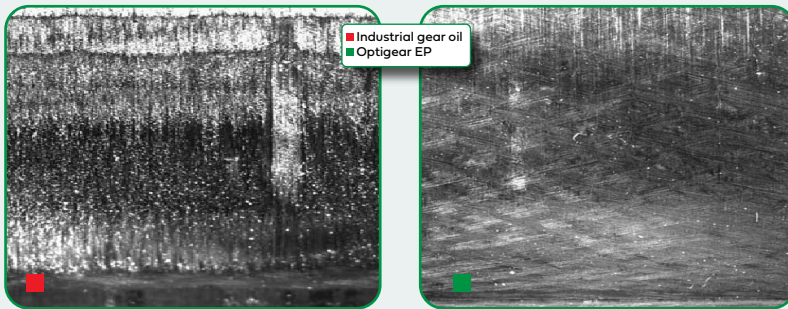
Low-friction gear oil delivering
heavy-duty performance



Castrol Optigear EP

A new generation gear oil range that combines plastic deformation performance, bearing lubrication, and extreme load-carrying capabilities.

Load carrying with Castrol Optigear EP



The above images are from the FZG Sprungtest* which indicates load-carrying and sliding performance, as found in hypoid gears. Visible wear across the entire gear teeth can be seen with the industrial gear oil. In contrast, with Optigear EP, the original machine cross-hatch marks from production are visible, with only a few scratches on the gear tip.

Castrol Optigear EP is an advanced gear oil that combines plastic deformation performance, bearing lubrication and extreme load-carrying capabilities.

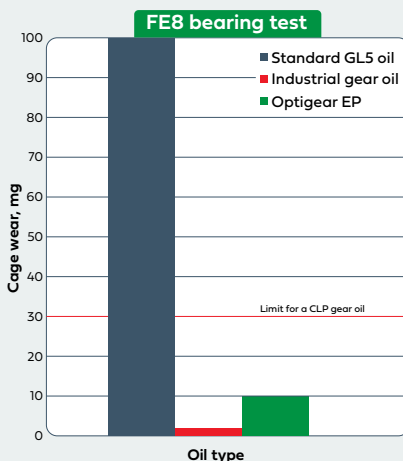
It exceeds the DIN 51517-3 CLP gear oil specification and meets the requirements of FZG Sprungtest, providing optimized performance when used in bearings and highly loaded gears.

Several customer tests have shown reductions in operating temperatures of up to 10°C when switching from competitor gear oils to Optigear EP.

In a hypoid gear test comparison, which has a high sliding ratio, Optigear EP performed better than other oils.

- No failures observed with increased noise or temperature. The system would automatically shut off if these levels became too high.
- A 10°C reduction in temperature.
- Smoother surface on gears.

Bearing performance with Castrol Optigear EP



The FE8 bearing test is part of the standard DIN 51517-3 for CLP gear oils and is a requirement of the majority of industrial gearbox manufacturers.

The standard limit for industrial oils in the FE8 test is 30 mg maximum wear. Due to the high amount of potentially aggressive load-carrying additives required to meet GL5 (or equivalent FZG Sprungtest) standards, these oils often fail to meet the bearing requirement, which leads to variable results in the FE8 bearing test.

Features	Benefits
Combined bearing and load carrying performance	• Extends the lifetime of gears, especially in applications where sliding and load carrying are needed, such as in hypoid gears • Can extend oil change intervals by reducing the stresses on the oil due to lower oil temperatures • Lower maintenance, operating, and disposal costs
Plastic deformation additive system	• Improves surface quality and reduces existing surface damage • Enhances system availability and can extend the life of a gear box
Meets CLP gear oil performance	• Can be used where CLP gear oils are specified • Reduces inventory holding

*The FZG Sprungtest is equivalent to ASTM L42, which evaluates load-carrying performance under high-speed shock conditions. This test is part of the GL5 (automotive) gear oil specification.