



## Optigear Synthetic ALR 150

High performance gear oil

### Description

Castrol Optigear™ Synthetic ALR 150 is a high performance synthetic gear oil designed for lubrication of robot gear boxes. Based on a combination of additives to provide excellent bearing performance, good load carrying and outstanding thermal stability. This synthetic based gear oil is also designed to give an extremely low sludge forming propensity as well as good elastomer/seal compatibility with minimal interaction.

Optigear Synthetic ALR 150 has also been coloured blue in order for Robot manufacturers and End Users to immediately visually detect any leakages.

### Application

Castrol Optigear™ Synthetic ALR 150 is designed for use in Robot gear box systems where oil lubrication is preferred to grease due to high speeds and ease of change over. ALR 150 is intended too extend oil change intervals versus current commercially available products allowing for lower downtime and increased maintenance intervals for oil lubricated systems.

Extended elastomer/seal compatibility testing highlights the low interaction of Optigear Synthetic ALR 150 with common seal materials, critical for reduced or no leakage within oil lubricated robots.

Optigear Synthetic ALR 150 also has a very low pour point and excellent viscosity and temperature characteristics, allowing use in both low and high temperature applications

Optigear Synthetic ALR 150 is classified as follows:

DIN Classification is CLP

Optigear Synthetic ALR 150 meets the requirements of:

DIN 51517 Part 3

### Advantages

- Good thermal and oxidative stability provides reliable operation and extended operating life when compared to mineral oil based products.
- Inherently high viscosity index (VI) makes the product suitable for operations operating over a wide temperature range.
- Good anti-wear and load carrying abilities minimises gear wear and prolongs gear tooth life.
- Reduced down time through water separation and demulsification characteristics resulting in prolonged lubricant life and increased equipment reliability.
- PAO based lubricant that provides good compatibility with seals, paints and mineral oil based lubricants.

## Typical Characteristics

Name	Method	Units	ALR 150
Appearance	Visual	-	Clear blue oil
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	870
Kinematic Viscosity @ 40°C / 104°F	(DIN EN) ISO 3104 / ASTM D 445	mm <sup>2</sup> /s	150
Kinematic Viscosity @ 100°C / 212°F	(DIN EN) ISO 3104 / ASTM D 445	mm <sup>2</sup> /s	19
Viscosity Index	ISO 2909 / ASTM D2270	None	148
Pour Point	(DIN) ISO 3016 / ASTM D97	°C/°F	-45/-49
Flash Point - open cup method	(DIN EN) ISO 2592 / ASTM D92	°C/°F	271/520
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	10/0
Rust test - synthetic seawater (24 hrs)	(DIN) ISO 7120 / ASTM D665B	-	Pass
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	12

Subject to usual manufacturing tolerances.

Optigear Synthetic ALR 150

22 Sep 2023

Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

<http://msdspds.castrol.com>