

## Iloquench 32

Cold quenching oil

### Description

Castrol Iloquench™ 32 is a premium quality, low viscosity quenching oil, specially formulated from high quality, low sulphur base stocks having excellent oxidation and thermal stability, high fluidity and low volatility. It further contains a selected additive package which provides accelerated quenching characteristics compared to straight mineral quenching oils.

### Application

Iloquench 32 is a general purpose accelerated quenching oil suitable for hardening a wide variety of work pieces made of steels with low to medium harden abilities, including lean alloy types, such as:

- Fasteners, such as bolts, nuts and screws
- Very large, deep carburized transmission gears that are free quenched on supporting grates or die quenched in quench presses.
- Bearing rings, balls and rollers
- High speed tools
- Air conditioner compressor parts.
- Helicopter transmission and jet engine parts.
- Drop forged hand tools, like open-end and socket wrenches, ratchets, etc.
- Cutlery, measuring tools and artillery shells.
- High carbon wire and strip steel.
- Various other components for all major industries after carbo-nitriding

Iloquench 32 is suitable for use in continuous furnaces and open quench tanks. It may also be employed for quenching parts heated in cyanide salt baths.

### Conditions of Use

Optimum working temperatures range for Iloquench 32: 20°C - 80°C.

Avoid water entry into storage tanks or quench baths.

### Advantages

- Blended using carefully selected, solvent-refined base stocks and additives - ensures consistent accelerated quenching performance and metallurgical standards of output.
- Low viscosity - ensures minimum drag out losses and helps to ensure the most effective heat transfer.
- High flash point - reduces fire risk.
- Low percentage of volatile fractions - reduces losses due to evaporation and improves working conditions due to low fuming.
- Inherently resistant to oxidation and thermal degradation - reduces sludge and acid build-up and leads to a longer service life.
- Absence of tars and asphaltic matter - leads to clean components free of stains, patches, spots and marbling aspects and facilitates easy removal of the oil film if required.
- Versatile - compatible with all methods of component heating, including salt bath heating.

## Typical Characteristics

	Unit	Test Method	Value
Appearance	-	Visual	Clear, yellow-amber liquid
Density @ 15 °C	kg/m <sup>3</sup>	ISO 3675 / ASTM D 1298	870
Kinematic Viscosity @ 40 °C	mm <sup>2</sup> /s	ISO 3104 / ASTM D 445	22
Kinematic Viscosity @ 100 °C	mm <sup>2</sup> /s	ISO 3104 / ASTM D 445	5
Flash Point, COC	-	ISO 2592 / ASTM D 92	> 180 °C

## User Advice

The medium-fast quenching effect of Iloquench 32 is the reason for its wide range of applications. The oil is fast enough for fully hardening small parts made of plain carbon steels, like fasteners and high carbon spring wire.

However, Iloquench 32 does not quench so quickly that interfering distortion has to be expected on intricate parts as would occur during quenching in extremely fast quenching oils.

Consequently, Iloquench 32 is successfully used for distortion-prone work, such as large carburized transmission gears, plastic molds and large bearing races made of alloy steels.

Consult your Castrol Sales Engineer for questions regarding compatibility.

Iloquench 32

09 May 2014

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, to the extent that it is permissible by law to exclude warranties and representations, 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. Refer to the MSDS, available from our website for further information. No responsibility is taken by either Castrol NZ, 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 NZ (a business division of BP Oil New Zealand Limited)

Technical Advice Line: 0800 10 40 60 / Customer Service: 0800 CASTROL (227 876)

[www.castrol.co.nz](http://www.castrol.co.nz) [www.msds.castrol.co.nz](http://www.msds.castrol.co.nz)