



## Product Data

### Hydraulic Oil Range

Anti-wear hydraulic oil

#### Description

The BP™ Hydraulic Oil range are based upon mineral oil enhanced with a stabilised zinc additive system

#### Application

BP Hydraulic is primarily for use in hydraulic equipment, but is suitable for other duties in which lubricants with good oxidation stability and lubrication performance are required. The quality of its base oils and additives permits the application of the BP Hydraulic range in lightly loaded gears and for use as circulating oil in applications where a rust and oxidation inhibited oil is required.

The BP Hydraulic oils meet the specification requirements of the Vickers vane-pump test, DIN 51524 Part 2 and is classified as DIN 51502 classification – HLP & ISO 6743/4 – Hydraulic Oils Type HM.

The range is fully compatible with elastomer materials commonly used for static and dynamic seals, such as nitrile, silicone and fluorinated (e.g. Viton) polymers.

#### Advantages

- Good anti-wear performance – prevents wear of internal components reducing downtime.
- Resistant to oxidation – extends service life.
- Good water separation – reduces downtime and prolongs lubricant life.

# Typical Characteristics

Name	Method	Units	Hydraulic Oil 32	Hydraulic Oil 46	Hydraulic Oil 68	Hydraulic Oil 100
ISO Viscosity Grade	-	-	32	46	68	100
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	874	879	884	889
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	32.3	47.0	69.3	101
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	5.5	7.0	8.9	11.3
Viscosity Index	ISO 2909 / ASTM D2270	-	>95	>95	>95	>95
Pour Point	ISO 3016 / ASTM D97	°C/°F	-24/-11	-24/-11	-24/-11	-18/0
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	234/453	242/468	252/486	260/500
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	60/0	30/0	20/0	10/0
Water Separation @ 54°C / 129°F (40/37/3)	ISO 6614 / ASTM D1401	minutes	10	10	15	-
Water Separation @ 82°C / 180°F (40/37/3)	ISO 6614 / ASTM D1401	minutes	-	-	-	10
Air Release @ 50°C / 122°F	ISO 9120 / ASTM D3427	minutes	2	2	4	8
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	Rating	Pass	Pass	Pass	Pass
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	11	12	12	12

Subject to usual manufacturing tolerances.

## Hydraulic Oil Range

15 Oct 2019

BP, the BP logo and related marks are trademarks of BP p.l.c., 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. 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.

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

[www.castrol.com/industrial](http://www.castrol.com/industrial)