Product Data

Hyspin HLP-Z R Range

Anti-wear hydraulic oil

Description

The Castrol Hyspin™ HLP-Z R range is based upon re-refined mineral base oils and highly refined mineral oils, enhanced with a stabilised zinc additive system.

Application

Castrol Hyspin HLP-Z R 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 Hyspin HLP-Z R in lightly loaded gears and for use as circulating oil in applications where a rust and oxidation inhibited oil is required. 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.

Hyspin HLP-Z R is classified as follows:

- DIN 51502 classification - HLP
- ISO 6743/4 - Hydraulic Oils Type HM

Hyspin HLP-Z R meets the requirements (for appropriate viscosity grade) of:

- DIN 51524 part 2
- ASTM D6158 HM
- ISO 11158 HM

Base Oil Information

The re-refined base oil used has a cradle to gate carbon footprint which is 75% to 80% lower compared to conventional Group I base oils.
This comparison is based on:

- a cradle to gate life cycle impact assessment of the re-refined base oil carried out by the ifeu (Institut für Energie- und Umweltforschung) in accordance with ISO 14040:2006 and ISO 14044:2006, with critical review conducted by DEKRA, and
- a proxy value for conventional Group I (base) oils prepared for Castrol by ERM (Environmental Resources Management) in accordance with the Greenhouse Gas Protocol Product Life Cycle Accounting and Reporting Standard

Advantages

- Good wear and corrosion protection
- Good thermal and oxidative stability
- High filterability characteristics
- Good water separation
- Reduced carbon footprint compared to conventional hydraulic oils

Typical Characteristics

Name	Method	Units	Hyspin HLP-Z 10 R	Hyspin HLP-Z 22 R	Hyspin HLP-Z 32 R	Hyspin HLP-Z 46 R	Hyspin HLP-Z 68 R
Appearance	Visual	-	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright	Clear & Bright
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m³	880	880	880	880	880
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	10	22	32	46	68
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	2.4	4.2	5.4	6.8	8.8
Viscosity Index	ISO 2909 / ASTM D2270	-	-	95	95	95	95
Pour Point	ISO 3016 / ASTM D97	°C / °F	<-30 / <-22	-27 / -17	-27 / -17	-27 / -17	-24 / -11
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml / ml	0/0	0/0	0/0	0/0	0/0
Flash Point - open cup method	ISO 2592 / ASTM D92	°C / °F	>125 / > 257	220 / 428	220 / 428	225 / 437	245 / 473
Water Separation @ 54°C / 129°F (40/37/3)	ISO 6614 / ASTM D1401	minutes	15	15	15	15	15
Air Release @ 50°C / 122°F	ISO 9120 / ASTM D3427	minutes	4	4	4	8	8
Copper corrosion 3h @ 100°C / 212°F	ISO 2160 / ASTM D 130	Class	1	1	1	1	1
Rust test - distilled w ater (24 hrs)	ISO 7120 / ASTM D665A	Rating	Pass	Pass	Pass	Pass	Pass
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	-	-	>=11	>11	>11

Subject to usual manufacturing tolerances.

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