



## Castrol Hyspin AWH™ Range

Anti-wear hydraulic oil with Viscosity Index improver

### Description

The Castrol Hyspin AWH™ hydraulic oil with Viscosity Index improver (VI) range is based upon highly refined mineral oil enhanced with a stabilised zinc additive system.

### Application

Hyspin AWH has been specially formulated to provide good anti-wear and thermal stability performance. The careful blend of additives with a high quality base stock ensures that Hyspin AWH has excellent hydrolytic and oxidative stability while exhibiting a minimal tendency to produce sludge and deposits. In addition, Hyspin AWH provides corrosion protection to ferrous and yellow metal components found within a hydraulic system

This range is designed for use in industrial hydraulic systems which require anti-wear protection. It meets the needs of hydraulic equipment operating under severe service conditions such as a wider temperature and high pressure applications.

The Hyspin AWH 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 AWH is classified as follows:

ISO 6743/4 - Hydraulic Oils Type HV

Hyspin AWH grades meet the requirements (for appropriate viscosity grade) of:

DIN 51524 Part 3

### Advantages

- Good thermal and oxidative stability leads to longer operating life, reduction in lubricant costs and minimises deposit formation giving a cleaner system.
- Excellent anti-wear performance gives wear protection and reduces downtime from unscheduled maintenance.
- Good filterability characteristics (including in the presence of water) enables cost savings to be made from increased filter life and reduced maintenance.
- Excellent water separation and hydrolytic stability means reduced down time through prolonged lubricant life and increased equipment reliability.
- High viscosity Index. Minimum change in viscosity over wide temperature range
- Proven additive system. Ensures maximum protection from wear, corrosion, foaming and oxidation

## Typical Characteristics

Test	Method	Units	Castrol Hyspin AWH Range				
			15	32	46	68	100
<b>Typical Properties</b>							
Density @ 15°C	ISO 123185 / ASTM D4052	kg/m <sup>3</sup>	850	870	876	887	882
Kinematic Viscosity @ 40°C (cSt)	ISO 3104 / ASTM D 445	mm <sup>2</sup> /s	15	32	46	68	100
Kinematic Viscosity @ 100°C (cSt)	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	3.74	6.39	8.19	11.1	14.3
Viscosity index	ISO 2909 / ASTM D2270	-	150	150	150	150	150
<b>Machinery Protection</b>							
Aniline Point	ISO 2977 / ASTM D611	°C	102	96	102	102	107
Demulsibility No:	ISO 6614 / ASTM D1401		40/37/3/(30)				
			@54°C	@54°C	@54°C	@54°C	@82°C
Rust test - distilled water (24 hrs)	ISO 7120 / ASTM D665A	Rating	Pass				
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	Rating	Pass				
Oxidation stability - Hours to 2.0 mgKOH/g	ASTM 4310	hrs	2500+				
<b>Operational Safety Factors</b>							
Pour Point °C	ISO 3016 / ASTM D97	°C	-34	-34	-34	-38	-37
Flash Point - open cup method	ISO 2592 / ASTM D92	°C	199	204	216	226	228
Flash Point - closed cup method	ISO 2719 / ASTM D93	°C	188	193	204	218	222
Fire Point °C	ISO 2592 / ASTM D92	°C	221	221	232	246	250
<b>Operational Performance Factors</b>							
Air Release @ 50°C	ISO 9120 / ASTM D3427	min	3	6.5	12	15	20

Subject to usual manufacturing tolerances.

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