



Product Data

## Castrol Hyspin AWS Range

Anti-wear hydraulic oil (Serves as a migration from Paradene AW)

### Description

Castrol Hyspin™ AWS hydraulic oil range is based upon highly refined mineral oil enhanced with a stabilised zinc additive system. This product serves as a migration from Paradene AW.

### Application

Hyspin AWS has been specially formulated to provide good anti-wear and thermal stability performance using proven additive technology. The careful blend of additives with a high-quality base stock ensures that Hyspin AWS has excellent hydrolytic and oxidative stability while exhibiting a minimal tendency to produce sludge and deposits. Additionally, Hyspin AWS 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 such as lightly coated gears variable speed units and bearings. The Hyspin AWS range is compatible with the most commonly used nitrile, silicone and fluropolymer seal materials

Hyspin AWS is classified as follows:  
DIN 51502 classification - HLP  
ISO 6743/4 - Hydraulic Oils Type HM

Hyspin AWS (for appropriate viscosity grade) is approved by:  
Parker Hannifin (Denison) HF0, HF1 & HF2  
Eaton E-FDGN-TB002-E

Hyspin AWS grades meet the requirements (for appropriate viscosity grade) of:  
DIN 51524 Part 2  
Fives Cincinnati P68, P69 & P70  
ASTM D6158 HM  
ISO 11158 HM  
US Steel 126  
GB 11118.1 L-HM (General and High Pressure)

### Advantages

Hyspin AWS has the following advantages when compared to conventional hydraulic oils:-

- Good thermal and oxidative stability. Oxidative stability reduces deposit formation, resulting in a cleaner system. This can extend the machinery's operating life.
- Excellent anti-wear performance increases wear protection, which can help reduce downtime caused by 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, measured by industry standard testing. This increases equipment reliability, helping to prolong the lubricant's life and reduce downtime.

## Typical Characteristics

Name	Method	Units	AWS 22	AWS 32	AWS 46	AWS 68	AWS 100	AWS 150	AWS 220
ISO Viscosity Grade	-	-	22	32	46	68	100	150	220
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	g/m	0.870	0.880	0.880	0.880	0.890	0.890	0.890
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	22	32	46	68	100	150	220
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	4.3	5.7	7.3	9.4	11.1	14.5	18.7
Viscosity Index	ISO 2909 / ASTM D2270	-	101	118	118	116	96	95	95
Pour Point	ISO 3016 / ASTM D97	°C/°F	-27/ -17	-36/ -33	-36/ -33	-36/ -33	-18/ 0	-15/ 5	-12/ 10
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	<30/0	<30/0	<30/0	<30/0	<30/0	<30/0	<30/0
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	205/ 401	232/ 450	246/ 475	255/ 491	225/ 437	230/ 446	255/ 491
Water Separation @ 54°C / 129°F (40/37/3)	ISO 6614 / ASTM D1401	min	10	30	30	30	-	-	-
Water Separation @ 82°C / 180°F (40/37/3)	ISO 6614 / ASTM D1401	min	-	-	-	-	15	20	20
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	-	12	12	12	12	12	12
Rust test - distilled water (24 hrs)	ISO 7120 / ASTM D665A	-	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	-	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Oxidation Stability - TOST	ISO 4263-1 / ASTM D943	hours	>5000	>6500	>6500	>5500	>5000	-	-

Subject to usual manufacturing tolerances.

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