

**Product Data** 

# Hyspin Spindle Oil ZZ Range

Spindle Oil

### **Description**

The Castrol Hyspin™ Spindle Oil ZZ range of lubricants is based on a carefully selected ashless (zinc free) additive system designed to meet and exceed the most exacting performance standards.

#### **Application**

Castrol Hyspin Spindle Oil ZZ is based on an additive system containing ashless (zinc free) anti-wear, antioxidant, antifoam, corrosion prevention and metal deactivator additives.

Hyspin Spindle Oil ZZ is suitable for all types of high speed spindle bearings (including textiles) and can be used in certain hydraulic systems.

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

Hyspin Spindle oil ZZ is classified as follows:

DIN 51502 classification - HLP

ISO 6743/4 - Hydraulic Oils Type HM

ISO 6743/2 - Spindle Oils Type FD

#### **Advantages**

- Good hydraulic performance helps maintain high precision in spindle applications
- Zinc free formulation reduces the potential of deposit formation in the presence of water and/or water soluble metalworking fluids.
- Excellent water separation and hydrolytic stability means reduced down time through prolonged lubricant life and increased equipment reliability
- Resistant to oxidation and degradation products and protects against rust and corrosion reduces down time through prolonged lubricant life and increased equipment reliability
- Controlled foaming to provide consistent lubrication under the high agitation conditions found in spindle bearings.

## **Typical Characteristics**

Name	Method	Units	ZZ 2	ZZ 5
Appearance	Visual	-	Clear, Colourless	Clear & Bright
ISO Viscosity Grade	-	-	2	5
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m³	780	840
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	2	5
Kinematic Viscosity @ 100°C / 212°F	ISO 3104/ ASTM D445	mm²/s	0.95	1.9
Pour Point	ISO 3016 / ASTM D97	°C/°F	<-40/<-40	-39/-38
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	91/196	114/237

Subject to usual manufacturing tolerances.

#### **Additional Information**

For viscosities 10 mm<sup>2</sup>/s and above use the relevant Hydraulic Oil (Castrol Hyspin ZZ or AWS ranges)

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