



# ROYAL 1

## **ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid**

### TECHNICAL PRODUCT INFORMATION

#### **ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid**

**ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid** is a general purpose anti-wear, rust, corrosion and oxidation inhibited oil that provides excellent water separation and demulsibility. It is specially formulated to suppress foaming while also allowing rapid air release, improving hydraulic system performance and helping to prevent pump cavitation. Oxidation inhibitors provide control of sludge and varnish deposits, and increase service life. It is suitable for use where service requirements are light to moderate, and heavy-duty wear or long-term service is not critical, and is available in viscosity grades ISO VG22 to ISO VG100. When used in the proper grade, it will provide excellent service in hydraulic systems and air compressors, industrial bearings, hoists and machine tools, and circulating, splash, bath and ring lube systems for bearings and gears.

#### **FEATURES/ BENEFITS**

**ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid** are available in viscosity grades from ISO VG 22 to ISO VG 100 and are formulated:

- With anti-wear protection for equipment operating under high pressures and loads
- With oxidation inhibitors which provide sludge and deposit control, and longer service life
- With rust and corrosion protection for all system components
- To provide excellent water separation and demulsibility
- To provide excellent anti-foam properties and rapid air release

#### **APPLICATIONS**

**ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid** are recommended for applications calling for anti-wear, rust and oxidation inhibited oils including:

- Hydraulic systems
- Air compressors
- Industrial bearings
- Circulating systems; splash, bath and ring lube systems for bearings and gears
- A myriad of assorted industrial applications: hoists, machine tools, etc.
- Gear sets not requiring an EP gear oil
- Bath, splash circulating or mist systems

#### **SPECIAL HANDLING, NOTICES OR WARNINGS**

Use the same care and handling as for any petroleum product.



**TECHNICAL PRODUCT INFORMATION**

**TYPICAL CHARACTERISTICS**

<b>ROYAL 1® AW-68 Synthetic Blend Hydraulic Fluid</b>	
<b>Property</b>	<b>SAE Viscosity Grade</b>
<b>SAE grade</b>	AW-68
<b>Viscosity, ASTM D 445</b>	
<b>cSt @ 40 °C</b>	68.4
<b>cSt @ 100 °C</b>	11.17
<b>Viscosity index, ASTM D 2270</b>	156
<b>Brookfield viscosity ASTM D 2983, cP @ -20 °C</b>	3990
<b>Brookfield viscosity ASTM D 2983, cP @ -30 °C</b>	16380
<b>Brookfield viscosity ASTM D 2983, cP @ -40 °C</b>	
<b>Roller conical bearing (CEC L-45-A-99), % of loss of viscosity</b>	11
<b>Density 15 °C, ASTM D 4052 kg/L</b>	0.8626
<b>Corrosion to the copper sheet, ASTM D 130, 3 hours 100 °C</b>	18
<b>Gear test FZG, DIN 51354, failure stage</b>	12
<b>Pour point , °C, ASTM D97</b>	-39
<b>Flash point, °C, ASTM D 92</b>	240
<b>Foam sequence I, II, III, ASTM D 892, ml</b>	20/0
<b>Dielectric resistance, kV, ASTM D877</b>	17500 @ -25 °C
<b>Acute aquatic toxicity (LC-50, OECD 203)</b>	Pass

Typical test data are average values only.  
 Minor variations which do not affect product performance are to be expected during normal manufacturing.

**PRESENTATIONS:**

- **5 QUARTZ**
- **5 GALLON**
- **55 GALLON**
- **275 GALLON ( TOTE )**