

High performance. Higher possibilities.

# ORA

Anti Wear Hydraulic Oil



**byco**

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## Product Data Sheet

Byco ORA range of lubricants is a premium performance, anti-wear hydraulic fluid designed for use in mobile and stationary high pressure industrial & agrifarm hydraulic systems. They resist breakdown under heat or operational stress and help prevent formation of deposits that decrease efficiency of hydraulic power systems.



### Applications

- Industrial hydraulic systems.
- Hydraulics of moving/stationary and construction equipment.
- Hydraulic systems with vane, gear or piston pumps.
- Plastic injection molding machine.
- Marine hydraulic systems.

### Performance Level

- Denison Hydraulics HF-0, HF-1, HF-2 (ISO 32, 46 & 68)
- Eaton Vickers M-2952-S, I-286-S (Industrial applications), M-2950-S [mobile applications] (ISO 32, 46, 68)
- Cincinatti Milacron P-68 (ISO 32), P-69 (ISO 68), P-70 (ISO 46)
- ISO 11158 (HM fluids)
- ASTM 6158-05 (HM fluids)
- DIN 51524

### Benefits

#### Longer Equipment Life

Special anti-wear additive property reduces wear by protecting surfaces when excessive load causes break down of the lubrication film.

#### Reduce Maintenance Cost

Effective rust and oxidation inhibitor prevents the production of abrasive particles from rust formation and deposits, that can damage equipment surfaces and seals, and block filters prematurely.

#### Fluid Compatibility

Good hydrolytic stability and water separation characteristics provide excellent filterability in the presence of water contamination. Good anti-foam and air release properties ensure smooth operation and system efficiency.

#### Additional benefits associated with ORA range are as below:

- Superior Filterability
- Low Friction
- Hydrolytic Stability

### Key Properties

Properties/Units	Values				Test Method
ISO VG Grades	32	46	68	100	-
Air Release@50°C, mins	4	7	13	21	ASTM D-3427
Flash Point COC°C	210	220	226	240	ASTM D-92
Pour Point°C	-21	- 21	- 21	- 21	ASTM D-97
Viscosity	-	-	-	-	-
mm <sup>2</sup> /s@40°C	32	46	68	100	ASTM D-445
mm <sup>2</sup> /s@100°C	5.35	6.7	8.7	11.3	ASTM D-445
Viscosity Index	99	98	99	99	ASTM D-2270

Note: The typical characteristics are given as a guide only and may vary according to latest production according to ISO.



#### ENVIRONMENTAL, HEALTH & SAFETY

Environmental, Health & Safety Information of this product is available in Byco Material Safety Data Sheet (MSDS). Customers are encouraged to review this information, follow precautions and complying with the guidelines in consuming of the product, its use and disposal.