



Rando[®] Ashless 8401

High performance zinc-free multigrade hydraulic fluid

Product description

Rando Ashless 8401 is a high performance zinc-free multigrade hydraulic fluid designed for use under wide temperature conditions, and suitable for use in an operating window of between -40 and +75 °C.

Rando Ashless 8401 offers good low temperature operation, helping reduce start-up times when compared with conventional fluids.

Rando Ashless 8401 is formulated with highly refined base oils and a shear stable viscosity improver, which gives the oil a very high viscosity index (VI).

Customer benefits

- High performance zinc-free fluid formulation helps ensure corrosion resistant, ash-free performance
- Low temperature capabilities offer rapid start-up time when compared with conventional fluids
- Shear stable VI technology design promotes long service, wide temperature operation
- Good air release performance aids operational accuracy and system protection
- Reliable anti-foam properties aid system precision and control

Product highlights

- **Zinc-free, corrosion resistant ashless performance**
- **Offers rapid cold start-up time**
- **Promotes wide temperature operation**
- **Aids operational accuracy**
- **Designed for system precision and control**

Selected specification standards include:

Swedish Army Standard	DIN
Volvo	

Applications

- Rando Ashless 8401 is recommended for hydraulic systems operating at severe temperatures, for example in marine applications such as deck cranes, steering equipment, winches, or for outside hydraulic systems including airport equipment, ponds, bogies, dumpers, cranes, tail lifts and truck cranes, and log sorting conveyors in saw mills
- Working temperature range between -40 and +75 °C
- Rando Ashless 8401 fulfils all requirements for anti-wear hydraulic oils in heavy duty applications, but is not suited for continuous operation

Approvals, performance and recommendations

Performance

- Swedish Army Standard FSD 8401
- DIN 51524/3
- Volvo Hydraulic Oil 98607

Typical test data		
Test	Test Methods	Results
Viscosity Grade		1
Shelf Life: 60 months from date of filling indicated on the product label		
Appearance	Visual	Br&Cl
Colour	ASTM D6045	L0.5
Kinematic Viscosity at -40°C, mm ² /s	ASTM D445	1340
Kinematic Viscosity at 40°C, mm ² /s	ASTM D445	28.93
Kinematic Viscosity at 100°C, mm ² /s	ASTM D445	9.9
VI	ISO 2909	357
Flash Point, COC, °C	ASTM D92	110
Pour Point, °C	ASTM D5950	-66
Density at 15°C, kg/L	ASTM D4052	0.8790
Air release at 50°C, min	ASTM D3427	<2
FZG A/8.3/90 Failure load stage	CEC-L-07-A-95	>12
Foam Seq I, ml	ASTM D892	10/0
Foam Seq II, ml	ASTM D892	30/0
Foam Seq III, ml	ASTM D892	0/0
Copper corrosion 3h/100°C	ASTM D130	1
Demulsibility at 54°C, min	ASTM D1401	12
Rust, distilled water	ASTM D665A	Pass
Rust, salt water	ASTM D665B	Pass
Ash content, %	ASTM D874	0

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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