

Reolube[®] 46RS

Fire Resistant Hydraulic Fluid

DESCRIPTION

Reolube[®] 46RS is a fire-resistant hydraulic fluid and lubricant based on triarylphosphate manufactured from carefully selected raw materials. It was originally developed for use as a combined control fluid and lubricant for large steam turbines, but may also be used for the lubrication of gas turbines, turbo-compressors, reactor coolant pumps, generators as well as in conventional hydraulic applications.

In comparison with other fire-resistant fluids based on triaryl phosphates, **Reolube[®] 46RS** offers better fire-resistance properties, improved stability in the presence of moisture and very low levels of toxicity. It is approved by the FMGlobal against standard 6930 for 'less flammable hydraulic fluids' and also meets ISO standard 12922 for HFDR type fire resistant hydraulic fluids.

The values given in the tables are typical and do not constitute specification limits.

Technical data*



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PHYSICAL PROPERTY	UNIT	TYPICAL VALUE	TEST METHOD
Colour	Hazen	250	ASTM D1500
Kinematic Viscosity at 100°C	cSt	5.5	ISO 3104
Kinematic Viscosity at 40°C	cSt	48.4	ISO 3104
Kinematic Viscosity at 0°C	cSt	2287	ISO 3104
Specific Gravity at 20°C		1.13	ISO 3675
Pour Point	°C	-21	ISO 3016
Acid Number	mgKOH/g	0.02	ISO 6619
Chlorine Content	ppm	2	Microcoulometric
Water Content	%w/w	0.02	ISO 760
Particulate Contamination		Passes -/15/12	ISO 4406
Foaming Tendency Seq 1 at 24°C	ml	20	ISO 6247
Foaming Stability Seq 1 at 24°C	ml	0	ISO 6247
Foaming Tendency Seq 2 at 93.5°C	ml	0	ISO 6247
Foaming Stability Seq 2 at 93.5°C	ml	0	ISO 6247
Foaming Tendency Seq 3 at 24°C	ml	10	ISO 6247
Foaming Stability Seq 3 at 24°C	ml	0	ISO 6247
Air Release at 50°C	min	0.6	ISO 9120
Water Separation (Demulsification)	min	8	ISO 6614

**The analytical data are guide values.*



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FIRE RESISTANCE PROPERTY	UNIT	TYPICAL VALUE	TEST METHOD
Flash Point (open cup)	°C	264	ISO 2592
Fire Point (open cup)	°C	345	ISO 2592
Autoignition Temperature	°C	533	ASTM E659
Wick Ignition Maximum Persistence	s	2.7	ISO 14935
Spray Ignition Spray Flammability		Group I	FM global 6930

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LUBRICATION PERFORMANCE	UNIT	TYPICAL VALUE	TEST METHOD
Vickers Vane Pump Test ring weight loss	mg	0.4	ISO 20763
Vickers Vane Pump Test ring vane weight loss	mg	0.7	ISO 20763
Vickers Vane Pump Test ring total weight loss	mg	1.1	ISO 20763
Four Ball Wear Test wear scar diameter	mm	0.48	ASTM D4172
FZG gear test failure load stage specific weight loss		10	DIN 51354 part 2
FZG gear test failure load stage specific weight loss	mg/kWh	<0.2	DIN 51354 part 2

**The analytical data are guide values.*

STABILITY PROPERTY	UNIT	TYPICAL VALUE	TEST METHOD
Oxidative Stability Method A acid value change	mgKOH/g	0.67	DIN EN 14832
Oxidative Stability Method A Metal weight changes iron, copper	mg	0.0, -0.0	DIN EN 14832
Oxidative Stability Method C time to 275 kPa pressure drop	min	478	ASTM D2272
Hydrolytic Stability Method A acid value change in fluid	mgKOH/g	0.02	DIN EN 14833
Hydrolytic Stability Method A acid value change in water	mgKOH/g	0.17	DIN EN 14833
Corrosion Stability	rating	1B	ASTM D130

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MATERIAL APPLICATION	SEALS PACKING HOSES ACCUMULATORS	WIRES AND CABLE INSULATION	PAINTS	FILTERS
Acrylic			U	
Activated Alumina				A
Alkyd Paint			A	
Butyl Rubber	R			
Cellulose				A
Ethylene-Propylene Rubber	R			
Epoxy Paint (cured)			R	
Fuller's Earth				A
Ion Exchange Resins				R
Natural Rubber	U			
Neoprene	U			
Nitrocullulose			U	
Nitrile Rubber	U			
Nylon	R	R		
Paper				A
Phenolic Resins			U	
Polyethylene		A		
Polypropylene		A		
Polyurethane Paint			A	
PVC		U		
Silicone Rubber	U	A		
Teflon	R	R		
Vinyl Ester Paint			A	
Viton Rubber	R			

