ESTIN_S

Fire resistant Hydraulic Fluids

APPLICATIONS

ESTIN_S are fully synthetic fluids formulated with organic esters and specifically selected additives. These fluids have an high flash and combustion points and their specific properties can avoid a violent and explosive ignition in case of contact with flames or hot metal surfaces. **ESTIN_S** are approved **FM (Factory mutual)** with project code **N.3033919.** The resistance towards combustion is so extremely high to allow **ESTIN_S** to meet the severe tests **FTM 6052** and **FTM 352** from the 7th Report of Luxembourg.
ESTIN_S are suitable for hydraulic systems specifically used in steel industry, continuous casting machines, finishing rolling mills and in presence of flames or fire risk.

PROPERTIES

ESTIN_S are free from mineral oil, water, sulphur, chlorine, phosphorous and nitrogen and do not originate decomposition products which are toxic or with unpleasant smell.

Their most important properties are:
High viscosity index which ensures the best performance in hydraulic systems under variable temperature conditions.
Antirust, antiwear, antioxidant and antifoam characteristics: improved by very efficient additives.
Metals and elastomers compatibility: in particular these fluids are compatible with Viton, Teflon, Buna N, Neoprene, Polyurethane.

Complete mixability and compatibility between **ESTIN_S** and mineral oils, natural and synthetic esters.

Specification : ISO-L-HFDU
DANIELI CODE Type 36 0.151166.E

TYPICAL CHARACTERISTICS

	method	unit	ESTIN/46_S	ESTIN/68_S
Appearance	visual	--	clear	clear
Color	ASTM-D 1500	--	3	3
Density at 20°C	ASTM-D 1298	kg/m^3	916	927
Viscosity at 40°C	ASTM-D 445	cSt	48	66
Viscosity at 100°C	ASTM-D 445	cSt	9,7	11,8
Viscosity index	ASTM-D 2270	--	185	185
Freezing point	ASTM-D 97	°C	<-35	<-35
Flash point COC	ASTM-D 92	°C	>310	>310

The figures above are not a specification. They are typical figures obtained within production tolerances. 0917PG

Conqord Oil S.r.l.
Via Volpedo, 2 - 15050 Castellar Guidobono (AL)
Tel. +39 02 90595.1 - Telefax +39 02 90076347 - info@roloil.com - www.roloil.it

ESTIN_S

Fire resistant Hydraulic Fluids

ALTRE CARATTERISTICHE

	ESTIN/46_ S	ESTIN/68_S
Neutralization Number (ASTM D/974)	1,8	1,9
Saponification Number (ASTM D/94)	190	200
Foam Test (ASTM D/892)		
Sequence 1 (24°C)	traces	10cc 10”
Sequence 2 (94°C)	10cc 20”	20cc 20”
Sequence 3 (24°C)	traces	10cc 10”
Oxidation Stability IP 48 modified (test at 100°C for 350 hour)	change of viscosity +5%	change of viscosity +5%
Rust test (ASTM D/665)		
Sequence A	no rust	no rust
Sequenza B	no rust	no rust
Conradson carbon residue (ASTM D/189)	0,3	0,4
Fire Point (ASTM D/92)	360°C	360°C
Spray Test (Bureau of Mines)	border line	border line
Hot Surface Test (Factory Mutual)	pass	pass
4 Ball welding test (IP239 T)	155 kg (60”)	160 kg (60”)
Reichert test - wear	18 mm^2	15 mm^2
FZG test	>11	>11
Biodegradability (CEC L-33-T-82)	>90%	>90%

The figures above are not a specification. They are typical figures obtained within production tolerances. 0917PG

Conqord Oil S.r.l.
Via Volpedo, 2 - 15050 Castellar Guidobono (AL)
Tel. +39 02 90595.1 - Telefax +39 02 90076347 - info@roloil.com - www.roloil.it