



ANTI-RUST SYNTHETIC HYDRAULIC FLUID

NATO CODE H-544
MIL-PRF-46170 E TYPE 1
TL 9150-0097 AUSG. 3

DESCRIPTION

Hydrauncoil FH 3 is a synthetic hydraulic fluid based on a blend of poly-alpha-olefins (PAO) and synthetic esters, with a viscosity of 15 cSt at 40°C, and a viscosity index of 125. It combines most of the features of Hydrauncoil FH 2 (MIL-PRF-83282/H-537) with strong anti-rust properties and protection from galvanic corrosion.



The undyed - pale yellow - Hydrauncoil FH 3 is covered by NATO code H-544. It is a micro-filtered fluid.

APPLICATIONS

Hydrauncoil FH 3 is primarily used in tank recoil mechanism and hydraulic systems of ground equipment. It enables safer handling and operation at high temperature compared to the previous generation of petroleum-based fluids that exhibit low flash and fire points.

CHARACTERISTIC	UNIT	TYPICAL RESULT	MIL-PRF- 46170 E LIMIT	TEST METHOD
Appearance	-	yellowish	clear liquid	Visual
Density at 20°C	Kg/dm ³	0.850	report	ASTM D 4052
Kinematic viscosity at 100°C 40°C - 40°C	mm ² /s	3.64 15.1 2330	min. 3.40 max. 19.5 max. 2600	ASTM D 445
Flash point	°C	220	min. 218	ASTM D 92
Fire point	°C	248	min. 246	ASTM D 92
Pour point	°C	- 69	max. - 54	ASTM D 97
Total acid number	mg KOH/g	0.05	max. 0.20	ASTM D 974
Evaporation loss, 22 h at 149°C	%w	3.7	max. 5.0	ASTM D 972
Foaming characteristics (tendenc/stability) at 24°C at 94°C at 24°C after 94°C	cm ³ /cm ³	12/0 11/0 12/0	max. 65 / max. 0 max. 65 / max. 0 max. 65 / max. 0	ASTM D 892
Steel on steel wear, 4-ball machine, scar diameter After 1 h at 147 N After 1 h 392 N	mm	0.25 0.49	max. 0.30 max. 0.65	ASTM D 4172
Solid particle content 5 - 25 µm 26 - 50 µm 51 - 100 µm > 100 µm	nb/100 cm ³	2400 45 15 1	max. 10000 max. 250 max. 50 max. 10	HIAC automatic counter FED-S-791-3012
Water content	mg/kg	200	max. 500	ASTM D 1533
Auto-ignition temperature	°C	380	min. 343	ASTM E 659
Galvanic corrosion	-	pass	no corrosion	FTM-S-791-5322

CHARACTERISTIC	UNIT	TYPICAL RESULT	MIL-PRF- 46170 E LIMIT	TEST METHOD
Rust prevention test - 100 h at 49°C Polished specimens Sandblasted specimens		pass 240h pass 240h	no corrosion no corrosion	ASTM D 1748
Elastomer NBR-L compatibility, 168 h at 70°C	%v	18.9	15.0 - 25.0	FTM-S-791-3603

The values above are typical values. They do not constitute any contractual commitment.
Sales specifications are available on request. The present technical data sheet replaces all the previous editions.