

ANTI-CORROSION & ANTI-WEAR PETROLEUM HYDRAULIC FLUID

TL 9150-0035 Iss. 6 – H-540

Description

Hydraunycoil FH 14 is a petroleum-based hydraulic fluid with a viscosity of 38 cSt at 40°C and a viscosity index exceeding 280. It exhibits good anti-rust as well as anti-wear properties.

Hydraunycoil FH 14 is microfiltered and is supplied with a controlled particulate contamination. It can be used over an extremely wide temperature range, from - 40°C to + 135°C in air-tight circuits.

Application

Hydraunycoil FH 14 is intended primarily for use as an operational preservative fluid for ordnance equipment such as recoil systems and hydraulic systems for rotating weapon or aiming devices.

It has been particularly designed for the Krauss-Maffei Leopard tank and as hydraulic fluid for bridge ledger where it offers the right balance of viscosity, low temperature viscosity, anti-wear and corrosion protection.



Characteristic	Unit	Result	Limit*	Test method
- Appearance	-	conform	clear limpid	visual examination
- Color	-	1.0	Max. 5.0	ASTM D 1500
- Specific gravity at 15°C	-	0.856	report	ASTM D 40 52
- Kinematic viscosity at 100°C 40°C - 40°C	mm ² /s	11.5 40.6 4420	min. 9.8 36 - 45 Report	ASTM D 445
- Viscosity Index	-	294	min. 250	ASTM D 2270
- Flash point, COC	°C	162	min. 121	ASTM D 92
- Pour point	°C	- 48	max. - 45	ASTM D 97
- Acid number (pH = 11)	mg KOH/g	2.3	max. 3.0	ASTM D 974
- Copper corrosion 3 h at 100°C	-	1a	max. 1	ASTM D 130
- Element content zinc calcium phosphorus sulphur	mg/kg	1510 475 1324 3200	report report report report	ICP
- Water content	mg/dm ³	300	max. 1000	ASTM D1500
- Solid particles contamination	-	pass	NAS Class 9	HIAC
- FZG test – Damage level	stage	10	10 min.	DIN 51354 T
- Wear test – wear scar 1 h, 40 daN, 75°C	mm	0.50	max. 0.60	ASTM D 4172
- Air release at +50°C	min	5	max. 8	DIN 51381
- Stability 72 h at -40°C	-	pass	TL 9150-0035	FTMS-S-791-3459
- Foaming characteristics – Foam volume (after) at 24°C 5 minutes aeration 10 minutes settling at 94°C 5 minutes aeration 10 minutes settling at 24°C after 94°C 5 minutes aeration 10 minutes settling	cm ³	6 0 43 0 10 0	max. 150 0 max. 150 0 max. 150 0	ASTM D 892
- Rubber compatibility – SRE-NBR1 – 168 h at 100°C - Swelling - Hardness change - Elongation change - Tensile strength change	%vol Shore A % %	+10 -1 -29 +8	+9 to +21 max. - 7 max. - 35 max. -20	DIN 53521 DIN 53505 DIN 53504 DIN 53504
- Homogeneity test	-	pass	TL 9150-0035	TL 9150-0035
- Shear stability - 250 cycles viscosity change at 40°C	%	-1.7	max. 3.0	DIN 51382

* Specification TL 9150-0035 Iss.6

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.