

DIN 51524 Part II April 2006 Requirements

Test	Test Results			Specification Limits		
	Fastroil Hydraulic Oil 32 HI 13389	Fastroil Hydraulic Oil 46 HI 13388	Fastroil Hydraulic Oil 68 HI 13390	ISO 32 VG	ISO 46 VG	ISO 68 VG
ISO VG	ISO 32 VG	ISO 46 VG	ISO 68 VG			
Kinematic Viscosity at 0°C, mm ² /s, ASTM D445	325.28 ¹	602.6 ¹	977.3 ¹	470	780	1400
Kinematic Viscosity at 40°C, mm ² /s, ASTM D445	31.52	46.12	70.46	In Grade		
Kinematic Viscosity at 100°C, mm ² /s, ASTM D445	5.15	6.69	8.04	5	6.1	7.8
Density at 15°C, kg/dm ³ , IP365	0.87	0.88	0.88	Report		
Cleanliness class, ISO 4406	19/17/16	18/15/13	17/15/14	21/19/16		
Content of solid matter, ISO 4405	2 ²	7	19	Clear and Bright		
Ash content, % wt., ASTM D482	0.13	0.128	0.12			
ISO dry filtration, ISO 13357-2						
Stage 1, %	94.1	96.7	89.5	≥80		
Stage 2, %	86.0	90.5	76.4	≥60		
ISO dry filtration, ISO 13357-2						
Stage 1, %	80.0	81.7	82.5	≥70		
Stage 2, %	59.0	62.4	63.1	≥50		
Total Acid Number, mg KOH/g, ASTM DD664	0.65	0.75	0.65	Report		
Water content, %m/m, ISO 12937	>0.01	>0.01	>0.01	≤0.05		
Foam Test, ASTM D892						
Sequence I, ml	10/0	10/0	0/0	≤150/0		
Sequence II, ml	60/0	10/0	10/0	≤75/0		
Sequence III, ml	0/0	0/0	0/0	≤150/0		
Flash Point (COC), °C, min, DIN EN ISO 2592	218	232	242	175	185	195
Air Release at 50°C, mins, IP 313	4'54"	4'48"	7'54"	≤5	≤10	≤13
Copper corrosion (3h at 100°C), rating, ASTM D130	1A	1A	1A	2		
Rust prevention, procedure A, ASTM D665A	Pass	Pass	Pass	Pass		
Pour Point, °C, min	-24 ²	-15	-15	-18	-15	-12
Water Separation at 54C, ASTM D1401						
Time to 3mls emulsion at 54°C, mins, max	4'34"	10'59"	27'29"	≤30		

¹ Result calculated from KV @ 40°C & KV @ 100°C.

² Formulation tested was supplied by an Afton Chemical.



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