

## HIPER 1500

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### Technical data (Typical)

Appearance (Visual)	Light brown, clear, low viscosity liquid
Nitrogen (ASTM D 3228)	0.8 to 1.0%
Visc @ 40 °C (ASTM D 7042)	Approx. 70cSt
Density @ 29.5 °C (ASTM D 7042)	Approx. 0.920mg KOH /gm
Flash Point, COC (ASTM D 92)	>140 °C

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### Application

Hiper 1500 is an ashless additive package designed to be used for R & O oils, hydraulic fluids HL etc.

Hiper 1500 exhibits outstanding corrosion inhibition properties along with very good oxidation stability.

The formulated product also exhibits very good demulsibility.

#### **Suggested Applications:**

R & O OILS  
HYDRAULIC FLUIDS HL  
TURBINE OILS  
GEAR OILS CL  
COMPRESSOR OILS  
GREASES  
RAPESEED OIL AND SYNTHETIC ESTERS

**Formulation:**

Base Oil: Grp II paraffinic base oil: 99.5% b.w.

Hiper 1500: 0.5% b.w.

Test Method	Test results
	<b>ISO VG 32</b>
Acid Number [ASTM-D-974][mgKOH/g]	0.18
Oxidation Test [TOST] [ASTM D 943] After 1000h: Sludge [mg] TAN[mgKOH/g] After 2000h: TAN[mgKOH/gm] After 4100h: TAN[mgKOH/g]	  19 0.50  0.41  0.37
Rotating bomb oxidation test [ASTM D 2272] Life time [min.]	  560
Oxidation test [IP 280] 164 h/120 °C /soluble Fe and Cu cat./ 1 l O, per hour TOP max [%] Precipitate [%]	  0.09 0.04
Oxidation test [modified IP 306] 264 h [standard: 48 h]/120 °C / solid Cu cat./3l [standard: 1l] O, per hour TOP max. [%] Precipitate [%]	  0.15 0.05
Air release properties/50 °C [DIN 51381] [min.]	3
Demulsification capacity /54 °C [ASTM D 1401] Oil-water-emulsion [ml] Separation time [min.]	
Copper corrosion [ASTM D 130] 3h / 100 °C 24h / 100 °C	1a 1b
Corrosion test [steel] [ASTM D 665] Procedure A [distilled water] Procedure B [synthetic sea water]	0 0

Modified IP 135 [DIN 51585, ASTM D 665] test acc. to BS 489 AND CEBG Standard 207001 Test oil washed with hot [90 °C] distilled water Procedure A [distilled water] Procedure B [synthetic sea water]	Pass 0 0
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VKA [four ball test]-AW properties [DIN51350, part 3; ASTM D 4172] Scar diameter [mm.] 1500 ppm / 1h / 300N	0.41
Water separation ability after steam treatment [DIN 51589, PART 1] SEPARATION TIME [S]	43
Demulsification number after steam treatment [IP 19] seconds to separate of 20 ml oil [s]	83
FZG test A 8.3 /90 [visual] [DIN 51354, PART 2] Damage-load stage	9