



NATIONAL | Premium II Hydraulic Oils

Product Description

NATIONAL PREMIUM II AW HYDRAULIC OILS are long-lasting, anti-foaming oils designed to protect the life of high-speed hydraulic pumps and motors; offering superior protection against water contamination, rust, corrosion, and oxidation. Formulated with Group II paraffinic base oils each mono-grade formula — available in six different ISO viscosities¹ — outperforms other commercial oils in thermal, oxidative and hydrolytic stability.

Features

- ✓ Fast air release and great foam inhibition minimizes pump cavitation in systems with high circulation rates
- ✓ Excellent water separation (demulsibility) that facilitates water removal
- ✓ Excellent thermal and oxidation stability that reduces the formation of deposits in reservoirs
- ✓ Provides excellent wear protection
- ✓ Minimum viscosity changes over a wide temperature range

Industry and OEM Applications²

- ◆ Parker Denison HF-0 (HF-1 and HF-2 are included under the HF-0 designation)
- ◆ DIN 51524 Part 2
- ◆ Eaton Vickers E-FDGN-TB002-E (this specification supersedes I-286-S and M-2950-S)
- ◆ GM Lubricant Standard LH-03-1-11, LH-04-1-11, LH-06-1-11
- ◆ Racine, variable volume pump
- ◆ FIVES (formerly MAG, formerly Cincinnati Milacron) P-68, P-69, P-70
- ◆ B.F. Goodrich 0152
- ◆ Lee-Norse 100-1, Bosch Rexroth RD/RE 90220-1
- ◆ Toshiba Machinery
- ◆ Afnor E-48-603
- ◆ ISO 11158, ASTM D6158-05

NATIONAL EP GEAR OILS are recommended for general industrial plant lubrication where the performance properties of an AGMA extreme pressure lubricant is required and many types of enclosed gearing applications where loads and shock loading are high.

The product described above is designed for a specific use and may not be valid for other uses not specified in our specification sheet or in applications not requiring this specific product. Pinnacle Oil believes the information presented in this specification is accurate at the time written and is based upon internally generated information and information as presented by its vendors. No representation, warranty, or guarantee is made as to its accuracy or completeness. We do not accept any liability for any loss or damage that may occur from the use of this information.



Technical Data

ISO GRADE		10	22	32	46	68	100
Product Number		07-122610	07-122622	07-121032	07-121046	07-121068	07-121100
SDS Number		S094	S026	S028	S028	S028	S028
Viscosity @ 40°C, cSt	D445	10.12	20.27	32.64	46.10	67.62	96.29
Viscosity @ 100°C, cSt	D445	2.72	4.16	5.55	6.92	8.85	11.63
Viscosity Index	D2770	108	107	107	106	104	109
Specific Gravity at 60°F	D4052	0.8375	0.8531	0.8626	0.8661	0.8716	0.8749
Pour Point, °C	D5950	-54	-42	-42	-45	-33	-36
Color ASTM	D1500	L0.5	L0.5	L0.5	L0.5	L0.5	L0.5
Demulsibility	D1401	40-40-0, (10 min)	38-39-3, (5 min)	40-40-0, (5 min)	38-40-2, (10 min)	40-37-3, (10 min)	38-39-3, (5 min, 82°C)
Foam characteristics	D892	PASS	PASS	PASS	PASS	PASS	PASS
Breakdown voltage, kV ³	D877	39.3	48.0	34.8	36.3	33.9	36.8
Oxidation Life, hrs. to TAN = 2.0, minimum	D943	4,700 ⁴	7,100	8,100	7,100	7,600	6,600
Total Acid Number, mg KOH/g	D664	0.493	0.475	0.500	0.571	0.473	0.280
Air Release at 50°C, minutes, max.	DIN 51381/D3427	0:04	0:16	0:33	1:43	3:26	0:46
Copper Corrosion, 100°C, 3hr	D130	1b	1b	1b	1b	1b	1b

- 1) Consult your owner's manual regarding its suitability for use in equipment from other OEMs. These hydraulics perform in most equipment without concern for fluid-related harm.
- 2) AW 10, 22 & 100 excluded from most of these.
- 3) Breakdown Voltage (Dielectric strength) values were measured at point of origin and they will decrease if the oil becomes contaminated with dirt or even a very small amount of water. According to the Megger guide to insulating oil dielectric breakdown testing, a breakdown voltage of 30 kV or more is usually considered to be acceptable.
- 4) This value is an extrapolation based on additive performance at other viscosities.

The recommended shelf life for these oils is typically 48 months from manufacturing date when stored properly in the original sealed containers.

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