



NATIONAL | Zinc Free MV Hydraulic Oils

Product Description

NATIONAL Zinc Free MV Hydraulic Oils are formulated for year-round use and to give long service in high-output hydraulic systems operating in wide extremes of temperatures, particularly in environmentally sensitive locations due to their ashless anti-wear additive technology in combination with a very high shear stable Viscosity Index Improver.

NATIONAL Zinc Free MV Hydraulic Oils high viscosity index (VI), low pour point and energy conserving formulas provide long oil life for fewer changeouts and reduce sludge and varnish deposits better than conventional anti-wear hydraulic fluids. These oils provide excellent wear protection and have good oxidation and thermal stability.

Available in three ISO viscosities ¹ commonly used for hydraulics with vane, piston, and gear type pumps.

Industry and OEM Applications

- ◆ Parker Hannifin (Denison) HF-1, HF-6
- ◆ Eaton E-FDGN-TB002-E
- ◆ FIVES P-68, P-69, P-70 (obsolete)
- ◆ DIN 51524-3 HVLP
- ◆ Bosch Rexroth RE 90220
- ◆ ASTM D6158HV
- ◆ ISO 11158-L-HV
- ◆ JCMAS HK VG 32, 46

Features

- ✓ **Very low viscosity variation and quick start ups** thanks to the latest polymer technology that provides excellent, low-temperature performance, and maintains precision of machinery when either hot, cold, or under high loads. Our VI improver is highly resistant to mechanical stress, the “stay-in-grade” characteristics ensure effective lubrication and long oil life
- ✓ **Excellent water separation** (demulsibility) that facilitates water removal
- ✓ **Zinc Free (ashless)** wear protection to reduce the negative impact of unavoidable water condensation in your machinery after shutdown
- ✓ **Reduce oil consumption** and improve equipment protection through outstanding shear and oxidation stability
- ✓ **Excellent filterability** minimizes the tendency to cause filter blockage
- ✓ **Fast air release and antifoam properties** minimize pump cavitation in systems with high circulation rateswide temperature range



Technical Data

ISO GRADE		32	46	68
Product Code		07-122832	07-122846	07-122868
SDS Number		S175		
Viscosity @ 40°C, cSt	D7279/D445	32.88	47.16	62.77
Viscosity @ 100°C, cSt	D7279/D445	6.69	8.65	11.38
Viscosity Index	D2270	166	164	178
Specific Gravity at 60°F	D4052	0.8582	0.8645	0.8679
Pour Point, °C	D5950	-54	-51	-42
Color ASTM	D1500	L1.5	L1.5	L1.0
Flash Point, °C	D92	220	227	242
Demulsibility	D1401	40-39-1 (10')	40-38-2 (10')	40-40-0 (15')
Rust, Procedures A & B, 24 hr	D665	PASS	PASS	PASS
Breakdown voltage, kV	D877 ²	46	39	44
Foam characteristics	D892	Pass	Pass	Pass
Oxidation Life, hrs. (to TAN= 2.0, min)	D943 ³	7,000	>10,000	>10,000
Total Acid Number, mg KOH/g	D664	0.40	0.31	0.26

1. Always 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. 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.
3. IR Predicted D943 TOST life has a tolerance of ±10%

The recommended shelf life for these oils is typically 60 months from manufacturing date when stored properly in the original sealed containers.

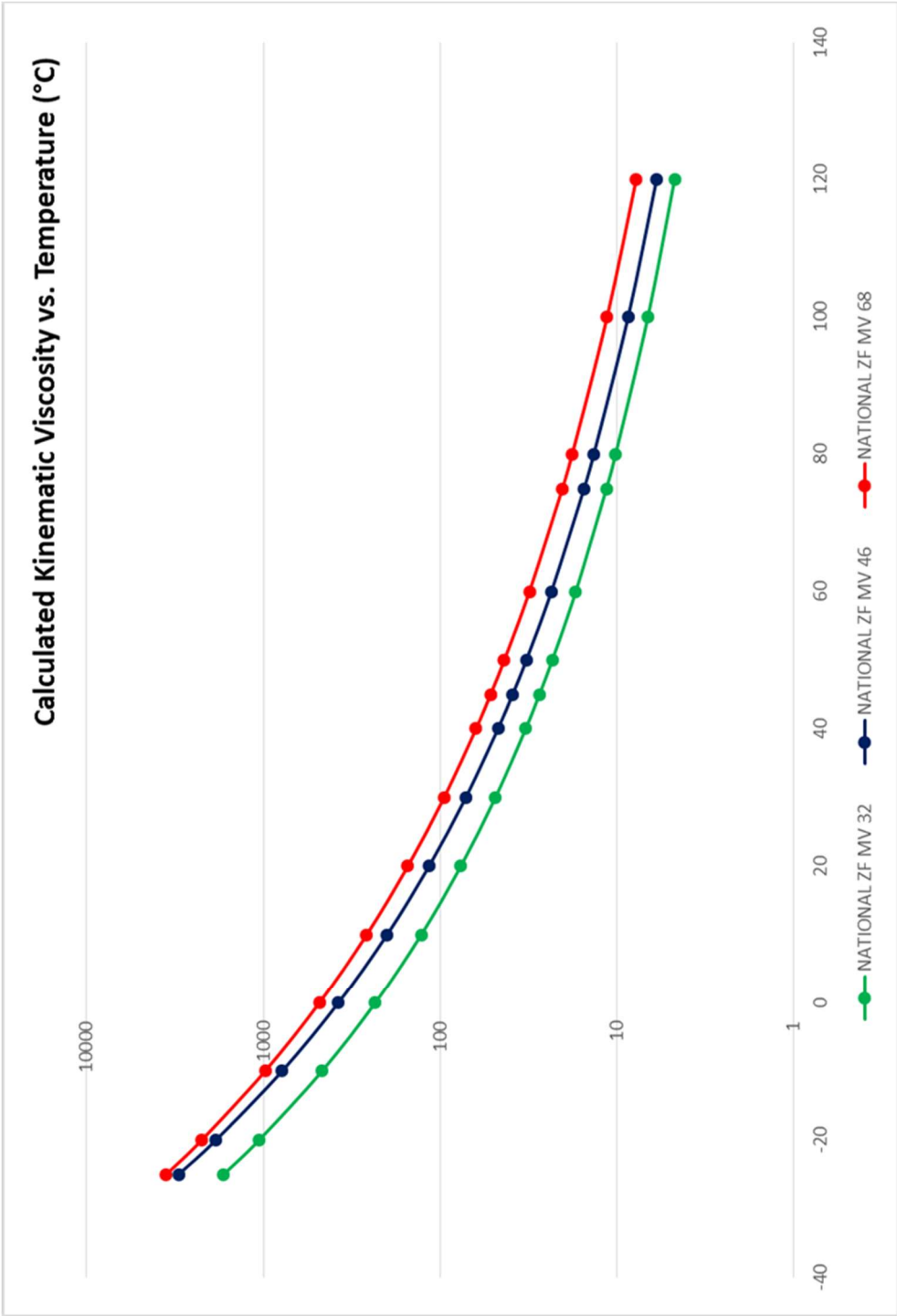
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