



## PRODUCT DATA SHEET

# NATIONAL™ AW HYDRAULIC MV OILS

### PRODUCT DESCRIPTION

National™ AW Hydraulic MV Oils are premium-quality anti-wear hydraulic oils with outstanding cold temperature flow properties. They are formulated with an effective anti-wear additive package with enhanced EP performance and an outstanding shear stable polymer which helps reduce wear in high-speed, high-pressure vane/ gear pumps.

National™ AW Hydraulic MV Oils are recommended for hydraulic and fluid power transmission systems that are subjected to wide temperature variations and provides good pumpability at low temperatures. National™ AW Hydraulic MV Oils are compatible with most seal materials and paints normally specified for use with mineral oils and also work great in systems that require dielectric hydraulic oil.

### FEATURES :

- ✓ **Excellent water separation** (demulsibility) that facilitates water removal
- ✓ **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
- ✓ **High shear stability**, our VI improver<sup>2</sup> is highly resistant to mechanical stress, the “stay-in-grade” characteristics ensure effective lubrication and long oil life
- ✓ **Reduce wear and corrosion**, strong hydrolytic stability and wear protection 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 rates

### INDUSTRY AND OEM APPLICATIONS<sup>1</sup>:

- ◆ Parker Denison HF-0 (HF-1 and HF-2 are included under the HF-0 designation)
- ◆ Eaton Vickers E-FDGN-TB002-E (this specification supersedes I-286-S and M-2950-S)
- ◆ DIN 51524 Part 3
- ◆ FIVES (formerly MAG, formerly Cincinnati Milacron) P-68, P-69, P-70
- ◆ ISO 11158
- ◆ ASTM D6158-16

D0210616

5009 WEST 81ST STREET | INDIANAPOLIS | INDIANA | 46268 | 800-829-8899 | FAX 317-875-0889

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 that 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.



# PRODUCT DATA SHEET

## NATIONAL™ AW HYDRAULIC MV OILS

### TECHNICAL DATA

(typical values)

ISO GRADE		15	22	32	46	68
Product Number		07-122645	07-122642	07-122650	07-122646	07-122648
SDS Number		S020.2	S020.2	S021.2	S021.2	S021.2
Viscosity @ 40°C, cSt	D445	15.27	22.99	31.35	46.65	61.95
Viscosity @ 100°C, cSt	D445	3.93	5.32	6.73	8.63	10.76
Viscosity Index	D2770	163	177	180	166	166
API Gravity	D1250	33.6	34.6	35.3	32.3	30.8
Pour Point, °C	D5950	-60	-54	-51	-48	-51
Color ASTM	D1500	L0.5	L0.5	L0.5	L0.5	L0.5
Demulsibility	D1401	PASS	PASS	PASS	PASS	PASS
Foam characteristics	D892	PASS	PASS	PASS	PASS	PASS
Total Acid Number, mg KOH/g	D664	0.588	0.590	0.411	0.437	0.436

- 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) DYNAVIS® technology

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

D0210616

5009 WEST 81ST STREET | INDIANAPOLIS | INDIANA | 46268 | 800-829-8899 | FAX 317-875-0889

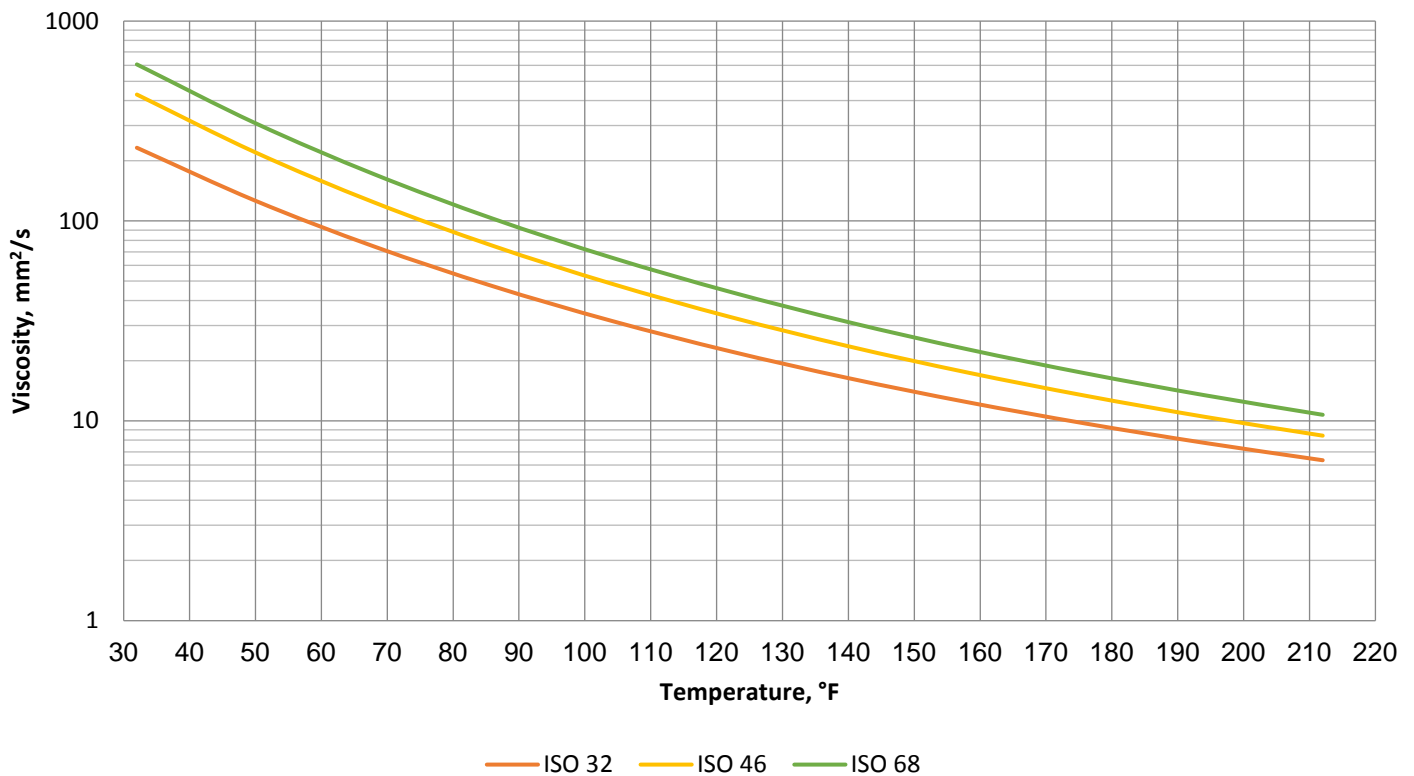
The product described above is designed for a specific use and may not be valid for other uses not specified in our specification sheet or in applications not requiring this specific product. Pinnacle Oil believes that the information presented in this specification is accurate at the time written and 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.



# PRODUCT DATA SHEET

## NATIONAL™ AW HYDRAULIC MV OILS

### TEMPERATURE CHART



D0210616

5009 WEST 81ST STREET | INDIANAPOLIS | INDIANA | 46268 | 800-829-8899 | FAX 317-875-0889

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 that 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.