PRODUCT DATA SHEET

Atros Multi-Vis HLVP AW 46

Full Synthetic Multi-Viscosity Anti-Wear Hydraulic Oil (ISO VG 46, HVLP)

Rev: 2026-05-15

DESCRIPTION

TRIAX Atros Multi-Vis HLVP AW 46 is a full-synthetic high-viscosity-index anti-wear (HVLP / HVI) ISO VG 46 hydraulic oil engineered for the most demanding industrial, construction, and mining hydraulic systems. The formulation leverages a high-quality synthetic base oil and a precisely balanced anti-wear and zinc-based additive system to deliver superior pump protection, exceptional shear and oxidation stability, and rapid hydraulic response across the full operating temperature range. Designed for 24/7 severe service in equipment operating in both very cold and very hot environments, the synthetic chemistry handles thermal stress, water contamination, and sustained high-pressure loads, prevents pump cavitation, scuffing, and premature wear, and maintains stable viscosity and lubricating performance over service intervals up to 10,000 hours.

PERFORMANCE HIGHLIGHTS

- Up to **10,000-hour fluid life** in severe-service hydraulic applications — 5× the service life of conventional hydraulic fluids
- **3× anti-wear protection** vs. conventional hydraulic fluids; **VI 170+** delivers exceptional viscosity stability and rapid, precise hydraulic response across the full operating temperature range*
- **Cold flow to -45 °C (-49 °F)** — will not clog hydraulic lines or thicken to unpumpable consistency in extreme cold; passes the Denison T6H20C hybrid pump test (dry and wet)
- **Cavitation protection** prevents hydraulic pump cavitation, scuffing, and premature wear under sustained high-load, high-pressure operation
- **Virtually zero foaming** with extremely rapid air release prevents system overheating and ensures consistent hydraulic pressure under continuous duty
- **Improved sludge and oxidation control** keeps hydraulic systems clean; outstanding heat transfer and thermal stability for sustained high-temperature operation
- **Universal seal compatibility** with all elastomer materials used in hydraulic seals, gaskets, and hoses; no seal swell, hardening, or leak development
- **Severe-service rated** for 24/7 continuous-duty industrial, construction, and mining hydraulic systems in both extreme cold and extreme heat operating environments

**Performance comparisons against conventional zinc-based hydraulic fluids. Fluid life of 10,000 hours represents maximum capability with proper monitoring and regular oil analysis; consult OEM service guidelines for application-specific intervals.*

SPECIFICATIONS & APPLICATIONS

TRIAX Atros Multi-Vis HLVP AW 46 is purpose-built as a suitable replacement for any and all ISO VG 46 HVLP hydraulic oils, covering demanding industrial machinery, construction equipment, mining hydraulics, and 24/7 continuous-duty hydraulic systems operating across wide ambient temperature ranges.

Meets or exceeds the following OEM and industry specifications:

- ISO VG 46; ISO 11158 (HV); HVLP / HVI hydraulic classification
- DIN 51524 Part 1 (HL), Part 2 (HLP), and Part 3 (HVLP)
- Denison HF-0 (T6H20C hybrid pump test, dry and wet), HF-1, HF-2
- Eaton Vickers I-286-S and M-2950-S
- Cincinnati Machine P-68, P-69, and P-70
- AFNOR NFE 48603 (HM)
- US Steel 127 and 136
- General Motors LH-04-1, LH-06-1, and LH-15-1
- Industrial, construction, and mining hydraulic systems
- 24/7 continuous-duty severe service in extreme temperature operation

TYPICAL PROPERTIES

Parameter (Test Method)	ISO VG 46
Viscosity, Kinematic @ 40 °C, cSt (ASTM D445)	**46.6**
Viscosity, Kinematic @ 100 °C, cSt (ASTM D445)	**8.5**
Viscosity Index (ASTM D2270)	**170+**
Flash Point, °C (°F) (ASTM D92)	**244 (471)**
Pour Point, °C (°F) (ASTM D97)	**-45 (-49)**
Specific Gravity @ 60 °F (ASTM D1298)	**0.862**
Copper Corrosion, 3 hr @ 100 °C (ASTM D130)	**1A**
Foaming Tendency, Seq. I / II / III, mL (ASTM D892)	**Pass**
Color (Visual)	**Amber**

These are typical values. There may be small differences in actual values which are a normal part of production and do not affect product performance.

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