



CITGO[®] HyDurance[®] AW/AL HVI 100 Fluid

OVERVIEW



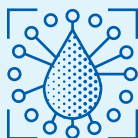
- A superior anti-wear and anti-leak, high viscosity index hydraulic and circulating oil formulated to provide outstanding performance under wide temperature ranges.
- Chemically stable with excellent resistance to sludge formation. Exhibits premium protection and filterability.

FEATURES & BENEFITS



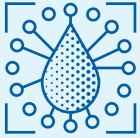
- Formulated with high-quality base stocks and premium additive components.
- Contains a seal-conditioning agent to prevent and minimize minor leaks, and help provide longer seal life.
- Excellent low-temperature performance and fluidity over a wide temperature change.
- Thermal stability for superior resistance to heat-related sludging in sensitive electro-hydraulic servos.
- Good hydrolytic stability means they will not contribute to the formation of metal-etching acids or corrosive reactants.
- Inhibited against rusting in both fresh and sea water, passing both A and B Procedures of the ASTM D665 Rust Test.
- Excellent anti-wear protection to pumps, motors, valves, and other hydraulic circuit components. Approved against stringent equipment performance requirements.
- Resistant to foaming and will not foster abnormal air entrainment in properly designed hydraulic circuits.
- Superior demulsibility to readily separate water, permitting draining of contaminating water from circulating systems.
- Premium performance in wet and dry filterability testing.
- Seal conditioner for longer seal life.

APPLICATIONS

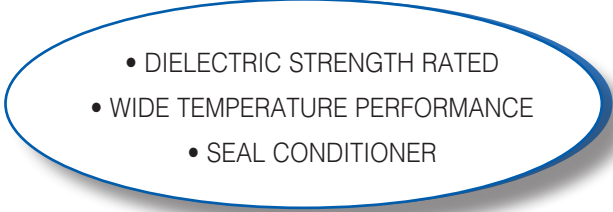


- Recommended for service in industrial and mobile hydraulic systems when used in accordance with equipment manufacturers' recommendations.
- Designed to provide enhanced service life to vane, piston, and gear pumps as well as other circuit components such as motors and servos.
- Recommended for use as a gear and bearing lubricant in industrial applications where rust- and oxidation-inhibited oils are required.

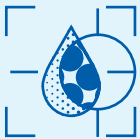
APPLICATIONS



- Excellent low-temperature pumpability; recommended for use in mobile and other hydraulic equipment in heavy duty all-weather service.
- Recommended for equipment requiring the following specifications:
Parker Denison HF-0
Eaton Brochure 03-401-2010



PROPERTIES



Typical Properties for CITGO HyDurance AW/AL HVI 100 Fluid:

Grade	HVI 100
Material Code	633625001
Gravity, ASTM D4052, °API	30.5
Density, lb/gal	7.27
Flash Point, ASTM D92, COC, °C (°F)	258 (496)
Viscosity ASTM D2893	
cP at -23°C	19,700
Viscosity ASTM D445	
cSt at 40°C	103.3
cSt at 100°C	14.3
Viscosity Index ASTM D2270	142
Four Ball Wear, mm, ASTM D2266	
20 kg load	0.30
40 kg load	0.46
Pour Point ASTM D97, °C (°F)	-33 (-27)
Water Separability, ASTM D1401 ⁽¹⁾	40-40-0
Rust Test, ASTM D665 A, B ⁽²⁾	Pass
Dielectric Strength, KV ASTM D877 ⁽³⁾	35
Cold Cranking Simulator, ASTM D5293, cP at -30°C	2680

Notes: (1) 30 minutes max. separation time to ≤3 mL emulsion. Test temperature is 180°F.

(2) Pass - No Rust.

(3) Minimum dielectric strength is 28 KV when packaged by CITGO Petroleum. Dielectric strength is sensitive to humidity and contamination; opened containers may exhibit lower values. Store sealed containers properly in dry environment.

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