



CITGO® HyDurance® AW Super NZ Fluids

OVERVIEW

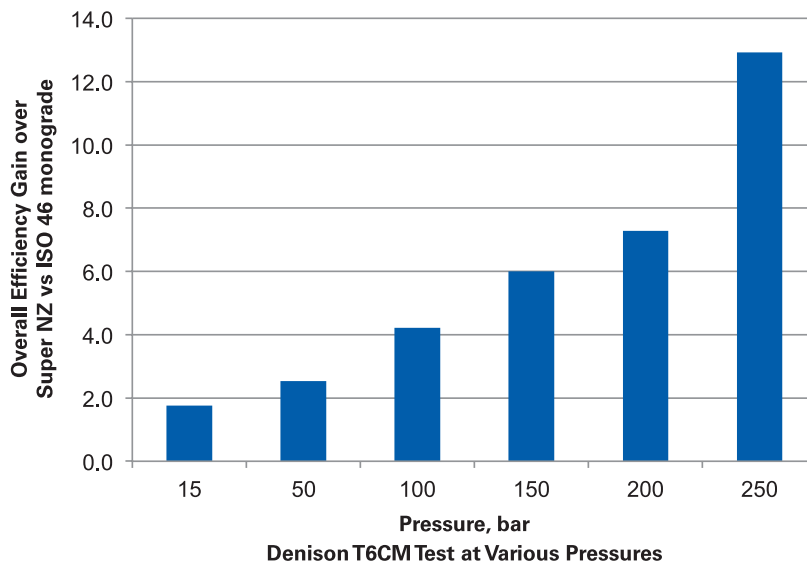


- High-efficiency hydraulic fluids for use over a wide temperature use range.
- Formulated with premium base stocks and ashless additives to provide long fluid life and outstanding protection for demanding mobile equipment hydraulic systems.
- Formulated with premium Zinc-free additive system. Zinc compounds are regulated as priority pollutants under provisions of the Clean Water Act and SARA Title 313.

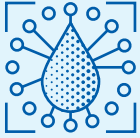
FEATURES & BENEFITS



- Helps increase pump efficiency for improved productivity.
- Zinc-free and non-toxic in acute aquatic toxicity test (LC-50) per OECD TG 203 limit test, for less environmental impact.
- Multi-grade performance for use over a wide temperature range.
- Excellent shear stability and thermal stability for extended fluid service life capability.
- Separates readily from water to allow draining of water from systems.
- Premium protection against rust and corrosion for harsh environments.
- Excellent foam control for dependable performance.
- Provides outstanding anti-wear protection to pumps, motors, and other hydraulic circuit components.
- Recommended for use in Hitachi excavators with 4,000-hour service intervals*.



APPLICATIONS



- Designed for increased hydraulic efficiency and excellent service life in vane, piston, and gear pumps, when used in accordance with equipment manufacturer recommendations.
- Highly recommended for high-pressure mobile equipment hydraulic systems operating in wide temperature range applications such as mining, construction, and logging.
- Recommended for equipment requiring the following specifications:
 GM LS-2
 Eaton Brochure 03-401-2010
 DIN 51524 PART 3
 U.S. Steel 127, 136, 126
 Cincinnati Machine P-68, P-69, P-70
 Parker Denison HF-0
 Hitachi Excavators*

***Applicable to CITGO HyDurance Super NZ only**

PROPERTIES



Typical Properties for CITGO HyDurance AW Super NZ Fluids

	Super NZ 32	Super NZ
Material Code	633619001	633618001
Gravity, ASTM D4052, °API	33.4	31.5
Density, lb/gal	7.15	7.23
Flash Point, PM, ASTM D93, °F (°C)	410 (210)	385 (196)
Viscosity ASTM D445		
cSt at 40°C	32.1	53.0
cSt at 100°C	6.6	9.9
Viscosity Index, ASTM D2270	170	177
Brookfield Viscosity ASTM D2983		
cP at -20°C	1116	
cP at -30°C	3450	7,998
cP at -40°C	16890	36,392
Pour Point, ASTM D97, °F (°C)	-54 (-48)	-49 (-45)
Color	Blue	Blue
Copper Corrosion, ASTM D130, 3h at 100°C	1A	1A
Rust Test, ASTM D665 A, B	Pass	Pass
Four Ball Wear, ASTM D4172, at 40 kg, mm	0.54	0.50
Foam Test, ml, ASTM D892		
Sequence I	10-0	10-0
Sequence II	40-0	25-0
Sequence III	0-0	0-0
Water Separability @ 130F, ASTM D1401	40-40-0	40-40-0
Acute aquatic toxicity (LC-50) per OECD TG 203	Pass	Pass

Notes: Contamination with other fluids can affect environmental benefits and system performance. Contamination with zinc containing and/or emulsifiable fluids may cause foaming, premature filter saturation, and a decrease in water separability. Refer to equipment owner’s manual for proper lubricant selection.

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