

## PREMIUM SYNTHETIC ANTI-WEAR HYDRAULIC OILS ISO GRADES 22, 32, 46, 68

	Typical Properties			
ISO Grade	22	32	46	68
Color, ASTM D-1500	<0.5	<0.5	<0.5	<0.5
Appearance	WaterClear	WaterClear	Water Clear	Water Clear
Viscosity, cSt				
At 40 C	21.6	31.8	46.4	67.9
At 100 C	4.7	6.0	7.8	10.3
Viscosity Index	135	135	137	138
Flash Point, (COC) Deg F/C	480/249	500/260	505/263	510/266
Pour Point, Deg F	<-55	<-50	<-45	<-45
Neut. No., ASTM D 974	0.45	0.45	0.45	0.45
Gravity, API @ 60 F	38.5	37.4	36.4	35.7
Rust Test, ASTM D 665A/B	No Rust	No Rust	No Rust	No Rust
Emulsion Test, ASTM D-1401 (40-40-0)	15 Min	15 Min	15 Min1	5 Min
Dielectric Strength, ASTM D-877	>35KV	>35KV	>35KV	>35KV
Hydraulic Stability, ASTM D-2619				
Cu mass loss, mg/cm²	0.09	0.09	0.09	0.09
Oxidation Life, ASTM D 943	_	_	_	_
Hr	+8,000	+8,000	+8,000	+8,000

The values shown are typical of current production. Some are controlled in the manufacturing process, while others are not. All of them may vary within tolerable ranges.

These four grades are synthetic based premium-quality anti-wear hydraulic oils with outstanding stability, designed to meet the demanding requirements of most all the major manufacturers and users of hydraulic equipment. These oils are distinguished by their clear appearance and clarity retention in operating systems, good rust protection, low deposit formation, rapid release of entrained air, oxidation resistance, low pour points, and good anti-foam properties. They are formulated from synthetically reformed hydrocarbon base stocks with an effective anti-wear agent that reduces wear in high-speed, high-pressure vane and gear pumps.

## **APPLICATIONS**

Especially suitable for use in hydraulic systems operating where extreme temperature conditions are experienced in various types of equipment such as: Excavators, cranes, shovels, drills, 'cherry pickers' and industrial machinery; portable compressors and circulating systems, gears and bearings, under seasonally varied temperatures. Performance features include high thermal stability in modern hydraulic systems, improved resistance to viscosity degradation and sludging, good chemical stability in the presence of moisture, and long term protection against corrosion even at elevated temperatures. These oils are compatible with all seal material normally specified for use with mineral oils. Dielectric strength is warranted at the origin and can be maintained providing low moisture contents are sustained and agitation under humid conditions is minimized.