CITGO® FR WG-40XD® Hydraulic Fluid

CITGO LUBRICANTS

OVERVIEW

- A premium water-glycol type fire-resistant fluid designed to provide excellent performance in hydraulic systems requiring fire resistance, such as those found in steel industry operations.

FEATURES & BENEFITS

- Specially formulated to provide excellent service over a wide range of operating conditions; particularly effective in demanding steel industry applications.
- Factory Mutual approved as a Less Flammable Industrial Fluid (Class 6930 - Group 1).
- Excellent fire resistance, with no flash point or fire point.
- Meets U.S. Steel Requirement No.171.
- Meets ASTM D2882 Sperry-Vickers V104C pump test.
- Enhanced lubricity, with protection from wear, foam, and corrosion.
- Excellent heat transfer properties.

APPLICATIONS

- May be used in most types of hydraulic systems requiring fire resistance.
- Recommended for steel mills, die casting and power transmission plants
- Recommended in fire-resistant hydraulic systems operating with Eaton/Vickers, Parker/ Denison, Rexroth, and other vane and piston pumps.
- Maintenance of viscosity of CITGO FR WG-40XD is recommended as follows:

CITGO FR WG-40XD WATER ADJUSTMENT CHART

BRIX	VISCOSITY (SUS) AT 100°F	VISCOSITY (cSt) AT 40°C	PERCENT WATER IN UNADJUSTED FLUID	GALLONS OF WATER NEEDED PER 100 GALLONS OF UNADJUSTED FLUID IN SYSTEM	CONDITION
50.0	412	82.5	28.4	18.1	SEVERE LEVEL
49.5	394	78.8	29.3	17.1	
49.0	377	75.0	30.2	15.8	
48.5	358	71.2	31.2	14.4	
48.0	342	67.9	32.2	13.0	
47.5	324	64.3	33.3	11.5	
47.0	309	61.3	34.2	10.2	
46.5	294	58.4	35.3	8.8	MODERATE LEVEL
46.0	280	55.6	36.5	7.3	
45.5	266	52.7	37.7	5.8	
45.0	253	50.1	38.8	4.5	
44.5	241	47.7	40.0	3.0	
44.0	228	45.0	41.5	1.5	NORMAL
43.5	217	43.0	42.7	0.0	
43.0	207	41.0	43.9	0.0	
42.5	197	38.9	44.5	0.0	
42.0	187	37.0	45.5	0.0	
41.5	177	34.5	-	Excess Water	MODERATE LEVEL
40.0	153	30.0	-	Excess Water	SEVERE LEVEL

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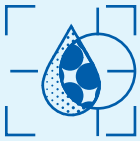
C 10206

PROPERTIES



Typical Properties for CITGO FR WG-40XD Hydraulic Fluid:

Material Code	**648326001**
Specific Gravity, D129, at 60/60°F	1.0817
Density, lb/gal	9.018
Flash Point, COC, ASTM D92, °F (°C)	None
Viscosity, D2161, SUS at 100°F	200
Viscosity Index, ASTM D2270	180
Pour Point, ASTM D97, °F (°C)	-40 (-40)
Color	Pink
pH	9.5
Reserve Alkalinity, ASTM D1121[(1)]	19.0
Four Ball Wear Test, ASTM D4172, 40 Kg load, Scar Dia., mm[(2)]	0.66
Foam Inhibitor	Yes

Notes: (1) Milliliters of 0.1N hydrochloric acid solution required to neutralize 10 milliliters of fluid to a pH of 5.5.
(2) Test conditions: 1 hour, 130°F, 1800 rpm.

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