

POLY-XAN

DESCRIPTION

Poly-Xan is a dispersible premium grade of Xanthan Gum.

PROPERTIES

Physical Appearance: White-tan powder Solubility: Complete in water Passing 40 mesh: 100%	Chemical Type: Xanthan Gum pH: 6-8 (1% solution)
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APPLICATION

Poly-Xan is used primarily as a viscosifier in fresh water, seawater or saline muds. It also provides a measure of filtration control. **Poly-Xan** (in conjunction with an oxygen scavenger) is temperature stable to 150 °C. It is stable in a wide pH range and is used in both weighted and unweighted drilling fluids, completion fluids and work over systems.

Poly-Xan exhibits the rheological property of pseudoplasticity (shear thinning). Small quantities provide high yield points and low plastic viscosities, which provide excellent carrying capacities and high penetration rates.

Table 1 shows the rheological properties of Poly-xan versus an industry leading competitor product. Tests were done in both fresh water and saturated KCl solutions at 2.8 kg/m³ polymer loading.

Figure 1 compares the yield point (YP) of Polyxan and industry leading competitor product. Fig 2 compares the low shear rheology of Poly-xan and an industry leading competitor product. The yield point and low shear rheology data are comparable and suggest that the two products have comparable solids carrying capacities.



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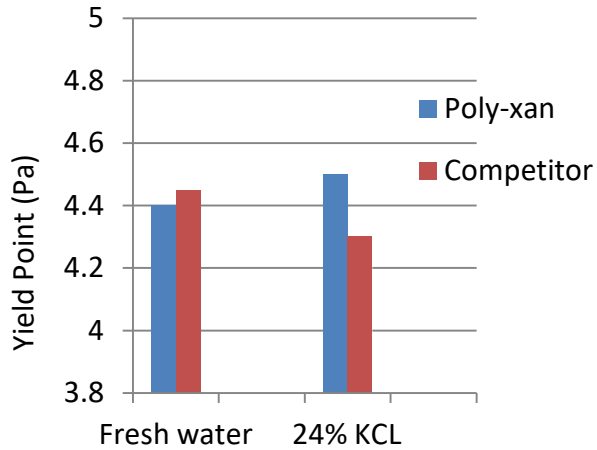


Fig. 1

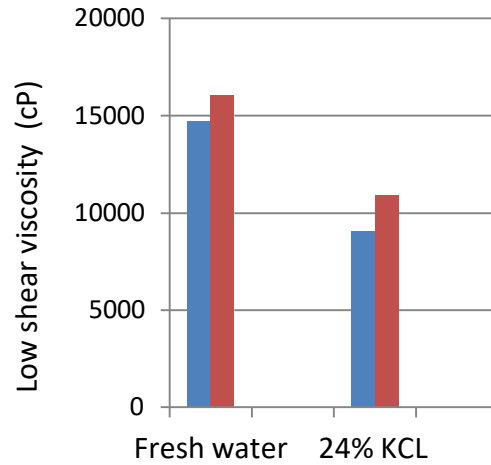


Fig. 2

Yield Point (Pa) (**Fig. 1**) and Low Shear Viscosity (cP) (**Fig. 2**) comparison of Poly-xan and competitor xanthan gum.

Table 1. Rheological properties of Poly-xan vs. industry leading xanthan gum.

Test	Poly-xan (Freshwater)	Competitor (Freshwater)	Poly-xan (Saturated KCL)	Competitor (Saturated KCL)
600 rpm	18.4	16.9	18	17.6
300 rpm	13.6	12.9	13.5	13.1
200 rpm	11.6	11.5	11.2	11
100 rpm	9.1	9.2	8.6	8.6
6 rpm	4.6	5.3	3.6	4.1
3 rpm	4.3	4.8	3.1	3.6
PV (mPa·s)	4.8	4.0	4.5	4.5
YP (Pa)	4.4	4.45	4.5	4.3
Brookfield LSV (spindle#61, 0.3 RPM), cP	14,700	16,020	9,060	10,900
Dispersibility	Good	Some Fish-eyes	Good	Some Fish-eyes



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MIXING AND HANDLING

Poly-Xan disperses in water with moderate agitation. Continued mixing provides a smooth viscous fluid. **Poly-Xan** should be added slowly to the active system to avoid lumping or fish-eyes, which may occur if the polymer is not allowed to properly disperse.

WHMIS: Not Controlled	TDG: Not regulated	PACKAGING: 25 kg sack
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