

# OPTIXAN™ XANTHAN GUM

## COST-EFFECTIVE FLUIDS FOR MAXIMUM PERFORMANCE

For high performance in drilling workover and completion fluid applications, you can't beat OptiXan™ xanthan gum products from ADM.

In oil field applications, OptiXan xanthan gum has demonstrated unique rheological characteristics that provide optimum hole cleaning and suspension.

It delivers high viscosity at low concentrations. (One pound of OptiXan xanthan gum has similar suspension and carrying capacity to 20-25 lbs. of bentonite.) Using it means you can eliminate most materials typically added to treat bentonite and drilled solids. Combined, that translates to significantly reduced transportation costs.

Plus, OptiXan xanthan gum provides reduced friction and circulating pressures, and its pseudoplastic characteristics make it an effective fluid for higher drilling rates and improved cuttings removal.

It provides temperature stability, particularly when using oxygen scavengers, and excellent stability at pH levels between 2 and 12.

In addition, OptiXan xanthan gum is compatible with most oil field additives as well as a range of make-up fluids including fresh, sea, brackish, and saturated salt waters.

### KEY BENEFITS

- Optimum hole cleaning and suspension properties
- Reduces pressure loss in tubulars to enhance hydraulic efficiency
- Improves penetration due to low viscosity at jet nozzle and low solids content
- Enhanced flow properties in the annulus for shale stability and hole cleaning
- Reduced formation damage
- Greatly reduced transportation costs
- Stable at temperatures up to 300° F
- Effective emulsion stabilizer
- Non-toxic and biodegradable for reduced fluid disposal costs

## OPTIXAN PRODUCTS

ADM offers a full line of quality drilling-grade xanthan products:

### OPTIXAN D XANTHAN GUM

A standard-quality xanthan gum with a seawater reading between 13 and 17, suitable for use in most applications.

### OPTIXAN PLUS XANTHAN GUM

A high-quality xanthan gum with a seawater reading between 17 and 20.

### OPTIXAN ULTRA XANTHAN GUM

An extremely high-viscosity, premium-quality xanthan gum for optimum rheological performance. Has a seawater reading of 21 and above.

### OPTIXAN T PLUS XANTHAN GUM

A high-quality clarified xanthan gum with a seawater reading between 17 and 20.

### OPTIXAN T ULTRA XANTHAN GUM

An extremely high-viscosity, premium-quality clarified xanthan gum for optimum rheological performance. Has a seawater reading of 21 and above.

All grades are also available in non-dispersible forms for use in slurries and suspensions.

OptiXan T transparent xanthan gum yields the highest transparency available in the market, useful for applications such as horizontal drilling, when suspension and low formation damage are important.

Seawater dial readings are measured on a Fann model 35 rheometer with a 0.25 spring at 3 rpm.

# OPTIXAN™

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# OPTIXAN™ XANTHAN GUM

## MIXING RECOMMENDATIONS

High-shear mixing typically produces maximum hydration.

For all grades of dispersible xanthan gum, adjust the pH to 8-10 to release the dispersing agent and speed up hydration.

## PRESERVATION

OptiXan products are biodegradable, but preservatives are not normally required in day-to-day drilling operations. If the fluid will be stored, add bactericides according to the manufacturer's recommendations.

## PACKAGING

All grades are available in 25 lb. bags, 25 kg bags, and 1 metric ton bulk bags.

## TECHNICAL SERVICES CONTACT

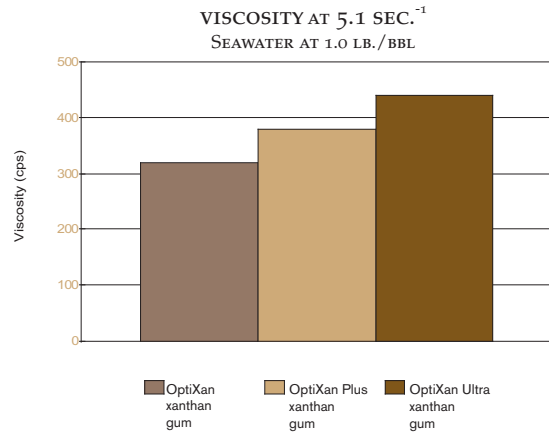
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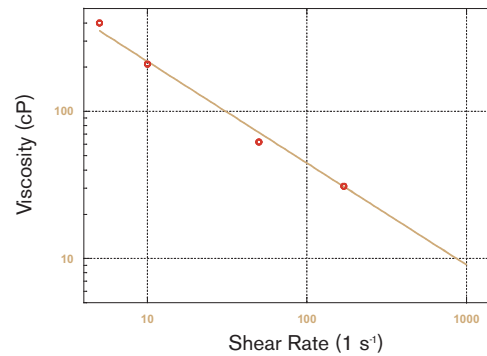
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TYPICAL VISCOSITY PROPERTIES OF OPTIXAN XANTHAN GUM AT 1 LB. PER BBL



## TYPICAL RHEOLOGICAL PROPERTIES IN SEAWATER

### OPTIXAN™ XANTHAN GUM

	Apparent Viscosity (cP)	Plastic Viscosity (cP)	Yield Point (lbs./100 sq. ft.)	Fann Dial Reading 3 RPM (0.2 spring)
1.0 lb./bbl	9.0	4.0	10.0	16.0

### OPTIXAN PLUS XANTHAN GUM

	Apparent Viscosity (cP)	Plastic Viscosity (cP)	Yield Point (lbs./100 sq. ft.)	Fann Dial Reading 3 RPM (0.2 spring)
1.0 lb./bbl	9.75	4.5	10.5	19.0

### OPTIXAN ULTRA XANTHAN GUM

	Apparent Viscosity (cP)	Plastic Viscosity (cP)	Yield Point (lbs./100 sq. ft.)	Fann Dial Reading 3 RPM (0.2 spring)
1.0 lb./bbl	10.5	5.0	11.0	22.0