

SUPER GEL®

HIGH YIELD BENTONITE

DESCRIPTION

SUPER GEL is an easy mixing, high viscosity 200 bbl yield freshwater drilling fluid produced from the highest grade Wyoming sodium bentonite. It has been optimally extended to achieve its maximum viscosity potential.

RECOMMENDED USE

May be used for all types of freshwater based mud rotary drilling.

CHARACTERISTICS

- Cools and lubricates bit
- Helps reduce lost circulation
- Highly concentrated for maximum yield and low plastic viscosity
- Lifts and removes cuttings
- Mixes quickly and easily
- Reduces solids and increases lifting power
- Stabilizes borehole

MIXING AND APPLICATION

Mixing ratios are based on 200 bbl yield material using freshwater. Level of water purity will affect bentonite performance. Prior to mixing, acidic and hard water should be treated with SODA ASH to a pH of 8.5-9.5. For best results, add SUPER GEL slowly through a jet/hopper mixer.

PACKAGING

~50 lb (~22.7 kg) bags, 48 per pallet, ~1 ton or ~2 ton supersacks, or bulk. All pallets are plastic-wrapped.

DRILLING FLUID SUPER GEL mixing ratio in pounds (kg) per 100 gallons (378.54 L) of water		
Condition	Lbs (kg) of SUPER GEL	% Solids
Normal Conditions	15 - 25 lbs (6.8 - 11.3 kg)	1.8 - 3.0%
Sand and Gravel	25 - 35 lbs (11.3 - 15.9 kg)	3.0 - 4.0%
Fluid Loss Control	35 - 40 lbs (15.9 - 18.1 kg)	4.0 - 4.6%
SLURRY PROPERTIES - 2.78% SOLIDS		
Property	Typical Value	Specification/Procedure
Viscosity FANN 600 rpm	35 cps	30 cps Min - ACC TP-2005
Viscosity FANN 6 rpm	14 cps	ACC TP-2055
Viscosity FANN 3 rpm	13 cps	ACC TP-2055
Yield - 42 gal bbl of 15 cps slurry/ton	205 bbl/ton	200 Min - ACC TP-2001
Marsh Funnel, seconds/quart	41 seconds	ACC TP-1014
Apparent Viscosity (AV)	17	15 Min - ACC TP-2005
Plastic Viscosity (PV)	5	ACC TP-2005
Yield Point, lb/100 ft ²	21	ACC TP-2005
Filtrate, 30 minutes @ 100 psi, mi	25 ml	ACC TP-2003
Filter Cake, in	2/32	N/A
pH	9.0	ACC TP-1018
GENERAL PROPERTIES		
Property	Typical Value	Specification/Procedure
Moisture %	7.5%	ACC TP-2006
Free Swell	29 ml	ASTM D-5890
Plate Water Absorption	810.05%	ASTM E946-92
Specific Gravity	2.5 g/cc	Generally Recognized
Bulk Density Non-compacted	53 lbs/ft ³	ACC TP-1005
Bulk Density Compacted	72 lbs/ft ³	ACC TP-1005
Grit % (<75 micron)	2.8%	4.0% Max - ACC TP-2004
Particle Sizing	70% Min passing #200 mesh sieve	ACC TP-1015

North America: 847.851.1700 | 800.426.5564 | www.COLLOID.com

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