PREMIUM GEL®

API BENTONITE



DESCRIPTION

PREMIUM GEL is a 200 mesh, 90 bbl yield sodium bentonite for freshwater drilling, slurry walls, and tunnel boring. PREMIUM GEL complies with API 13A Section 9, Specifications for Drilling Fluid Materials. PREMIUM GEL is certified to NSF/ANSI Standard 60, Drinking Water Treatment Chemicals - Health Effects.

RECOMMENDED USE

May be used for all types of freshwater mud rotary drilling where higher solids are desired. PREMIUM GEL can also be used as a seal for earthen structures, slurry trenching, tunnel boring, and foundation drilling.

CHARACTERISTICS

- · Cools and lubricates bit
- · Mixes quickly and easily
- · Reduces fluid loss into the formation
- · Removes cuttings
- · Stabilizes borehole

MIXING AND APPLICATION:

Mixing ratios are based on the use of freshwater; water purity will affect bentonite performance. For best results, acidic and hard makeup water should be pretreated with SODA ASH to a pH of 8.5-9.5. Add PREMIUM GEL slowly through jet/hopper mixer.

PACKAGING

50 lb (22.7 kg) bag, 48 per pallet, 100 lb (45.4 kg) bag, 35 per pallet, 1 ton or 2 ton supersacks, or bulk. All pallets are plastic-wrapped.

NOTE

PREMIUM GEL is manufactured marketed by AMERICAN COLLOID COMPANY (ACC). CETCO sells PREMIUM GEL in an AMERICAN COLLOID COMPANY (ACC) branded bag.

DISTRIBUTED BY:



www.terraquip.ca 1-877-663-9660

| PREMIUM GEL MIXING RATIO IN POUNDS (KG) PER 100 GALLONS (380 LITERS) OF WATER | | |
|---|---------------------------------|-----------------------------------|
| Condition | Lbs (kg) of PREMIUM GEL | % Solids |
| Normal Conditions | 30 - 50 lbs (13.5 - 22.5 kg) | 3.5 - 5.7% |
| Sand and Gravel | 50 - 70 lbs (22.5 - 31.5 kg) | 5.7 - 7.7% |
| Fluid Loss Control | 70 - 80 lbs (31.5 - 36 kg) | 7.7 - 8.8% |
| SLURRY PROPERTIES - 6.04% SOLIDS | | |
| Property | Typical Value | Specification/Procedure |
| Viscosity FANN 600 rpm | 40 cps | 30 cps Min - API 13A Section 9 |
| Viscosity FANN 6 rpm | 11 cps | ACC TP-2005 |
| Viscosity FANN 3 rpm | 11 cps | ACC TP-2005 |
| Yield - 42 gal bbl of 15 cps slurry/ton | 90 to 120 bbl/tn | 90 Min - API 13A Section 9 |
| Marsh Funnel, seconds/quart | 42 seconds | ACC TP-1014 |
| Apparent Viscosity (AV) | 15 to 25 cps | ACC TP-2005 |
| Plastic Viscosity (PV) | 9 to 10 | ACC TP-2005 |
| Yield Point, lb/100 ft ² | 15 to 25 lb/100 ft ² | ACC TP-2005 |
| Filtrate, 30 minutes @ 100 psi, mi | 13 to 15 ml | 15 ml Max - API 13A Section 9 |
| Filter Cake, in | 3/32 in | N/A |
| pH | 9.03 | ACC TP-1018 |
| GENERAL PROPERTIES | | |
| Property | Typical Value | Specification/Procedure |
| Moisture % | 7.4% | ACC TP-2006 |
| Free Swell | 28 | ASTM D-5890 |
| Plate Water Absorption | 622.80% | ASTM E946-92 |
| Specific Gravity | 2.5 | Generally Recognized |
| Bulk Density Non- | 53 lbs/ft ³ | ACC TP-1005 |

DRILLING FLUID AND SLURRY TRENCHING -

North America: 847.851.1800 | 800.527.9948 | www.CETCO.com

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compacted

Bulk Density Compacted

Grit % (<75 micron)

Particle Sizing

72 lbs/ft3

mesh sieve

70% Min passing #200

3.2%



ACC TP-1005

ACC TP-1015

4.0% Max - API 13A Section 9