

# TECHNICAL DATA

## PREMIUM GEL®

### API BENTONITE

#### DESCRIPTION

PREMIUM GEL is a 200 mesh, 90 bbl yield Australian sodium bentonite for freshwater drilling, slurry walls, and tunnel boring. PREMIUM GEL complies with API 13A Section 9, Specifications for Drilling Fluid Materials.

#### 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 make-up water should be pretreated with SODA ASH to a pH of 8.5-9.5. Add PREMIUM GEL slowly through jet/hopper mixer.

#### PACKAGING

25 kg multi-wall paper bags and 1.2 ton Bulk Bags

DRILLING FLUID AND SLURRY TRENCHING - PREMIUM GEL mixing ratio in kg per 1000L of water		
Condition	kg of PREMIUM GEL	% Solids
Normal Conditions	35 - 55 kg	3.5 - 5.7%
Sand and Gravel	55 - 85 kg	5.7 - 7.7%
Fluid Loss Control	80 - 95 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 <sup>2</sup>	15 to 25 lb/100 ft <sup>2</sup>	ACC TP-2005
Filtrate, 30 minutes @ 100 psi, ml	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-compacted	53 lbs/ft <sup>3</sup>	ACC TP-1005
Bulk Density Compacted	72 lbs/ft <sup>3</sup>	ACC TP-1005
Grit % (<75 micron)	3.2%	4.0% Max - API 13A Section 9
Particle Sizing	70% Min passing #200 mesh sieve	ACC TP-1015

Fieldtech Solutions - 37 Wirraway Dr, Port Melb. VIC. 3207  
03 9676 9664; [www.fieldtechsoln.com](http://www.fieldtechsoln.com);



An AMCOL Company

IMPORTANT: The information contained herein supersedes all previous versions, and is believed to be accurate and reliable. For the most up-to-date information, please visit [cetco.com/dpg](http://cetco.com/dpg). CETCO accepts no responsibility for the results obtained through the application of this information. All weights are approximate. CETCO reserves the right to update information without notice. REV 2/14

© 2014 CETCO