

# TECHNICAL DATA

## PUREGOLD® GEL

### UNTREATED BENTONITE DRILLING FLUID



#### DESCRIPTION

PUREGOLD GEL is a minimum 80 - 90 bbl yield, organic-free, untreated, high quality bentonite drilling fluid designed for the groundwater monitoring industry. It complies with API 13A Section 10, Specifications for Drilling Fluid Materials. PUREGOLD GEL is certified to NSF/ANSI Standard 60, Drinking Water Treatment Chemicals - Health Effects.

#### RECOMMENDED USE

PUREGOLD GEL is recommended for environmental rotary drilling where ambient groundwater quality and soil chemistry must be maintained. PUREGOLD GEL can be used in fresh or saltwater mud systems. It can also be used as a seal for earthen structures, slurry trenching, tunnel boring, and foundation drilling.

#### CHARACTERISTICS

- ▶ Chemically stable. Results from TCLP Metals Analysis are below RCRA limits for hazardous constituents
- ▶ Contaminant free. All 116 priority pollutants tested were below TCLP detection limits
- ▶ Lubricates and cools drilling bit
- ▶ Mixes quickly to achieve required viscosity
- ▶ Efficiently removes cuttings from the borehole
- ▶ Seals borehole wall to reduce fluid loss and impedes inter-aquifer groundwater movement
- ▶ Stabilizes and supports borehole wall

#### PACKAGING

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

DRILLING FLUID AND SLURRY TRENCHING - PUREGOLD GEL mixing ratio in pounds (kg) per 100 gallons (380 liters) of water		
Condition	Lbs (kg) of PUREGOLD 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 - 7.8%
Fluid Loss Control	70 - 80 lbs (31.5 - 36 kg)	7.8 - 8.8%
SLURRY PROPERTIES - 6.04% SOLIDS		
Property	Typical Value	Specification/Procedure
Viscosity FANN 600 rpm	27 cps	ACC TP-2005
Viscosity FANN 6 rpm	1 cps	ACC TP-2005
Viscosity FANN 3 rpm	0.5 cps	ACC TP-2005
Yield - 42 gal bbl of 15 cps slurry/ton	80 to 90 bbl/tn	ACC TP-2001
Marsh Funnel, seconds/quart	39 seconds	ACC TP-1014
Apparent Viscosity (AV)	13 to 14 cps	ACC TP-2005
Plastic Viscosity (PV)	10.5	API 13A Section 10
Yield Point, lb/100 ft <sup>2</sup>	4.5 lbs/ft <sup>2</sup>	API 13A Section 10
Filtrate, 30 minutes @ 100 psi, ml	13.7 ml	ACC TP-2003
Filter Cake, in	2/32	N/A
pH	9.03	ACC TP-1018
API 13A SECTION 10 TESTING AT 6.67% SOLIDS		
Property	Typical Value	Specification/Procedure
Dispersed Plastic Viscosity	10.5	10 Min/API 13A Section 10
Dispersed Filtrate	10.2	12.5 cc Max/API 13A Section 10
YP/PV Ratio	0.43	1.5 Max/API 13A Section 10
GENERAL PROPERTIES		
Property	Typical Value	Specification/Procedure
Moisture %	9.3%	ACC TP-2006
Free Swell	28 ml	ASTM D-5890
Plate Water Absorption	776.55%	ASTM E946-92
Specific Gravity	2.5 g/cc	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)	3.0%	4.0% Max - ACC TP-2004
Particle Sizing	70% Min passing #200 mesh sieve	ACC TP-1015

PUREGOLD®

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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. 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 1/11