

VOLCLAY® 13A

HIGH YIELD BENTONITE DRILLING FLUID

DESCRIPTION

VOLCLAY® 13A is a high quality, 200 mesh product made from the highest grade Australian sodium bentonite. VOLCLAY® 13A contains polymer additives.

RECOMMENDED USE

VOLCLAY® 13A can be used in the following applications: horizontal directional drilling, mineral exploration, water bores, civil engineering, rotary drilling and diaphragm walls.

CHARACTERISTICS

- Cools and lubricates bit
- Helps prevent loss circulation
- Highly concentrated for maximum yield
- Mixes quickly and easily
- Reduces solids and increases lifting power
- Removes cuttings
- Stabilizes boreholes
- Helps prevent loss circulation

MIXING AND APPLICATION

Mixing ratios are based on the use of fresh-water. Water purity will affect bentonite performance. For best results, make-up water should be pre-treated with soda ash to a pH of 8.5–9.5. VOLCLAY® 13A slowly through a jet/hopper mixer.

PACKAGING

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

DRILLING FLUID AND SLURRY TRENCHING – VOLCLAY® 13A 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, 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 Noncompacted	53 lbs/ft ³	ACC TP-1005
Bulk Density Compacted	72 lbs/ft ³	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

✉ | Unit 101 / 434 St. Kilda Rd. Melbourne, VIC 3004, Australia | T: +61 3 5272 8100
 | www.cetco.com/dpg | enquiries.au@mineralstech.com

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