Environmental Grout & Sealant

BENTONITE GROUT

SODIUM BENTONITE

DESCRIPTION

Bentonite Grout is a specially formulated sodium bentonite. **It** can be used for drilled hole abandonment, water well grout, sealing monitoring well casing or as a geothermal grout. Packaged in 50 lbs polyethylene bags.

MIXING

Mix in a grout mixer that will keep bentonite suspended in solution while mixing, such as a paddle or blade mixer. Not recommended for use with rubber geared pumps.

Solid Content	Gallons of Water per 50 lbs Bag	Lbs. of Grout per Gallon of Water
30%	20	2.25 + 0.25 lbs. Portland Cement

30% Grout contains higher solids content, larger batches are more manageable and remains pumpable longer. Pre mix 25 lbs Portland Cement to 100 gal. of water, then add 2.25 lbs per gal. Grout. Grout should remain fluid and pumpable for hours then sets up as a rigid yet flexible grout. When working in porous soils where fluid loss may occur, if you reverse the mix, mixing the bentonite first followed by the Portland Cement, you will generate a thicker mix more quickly.

Geothermal Grout Mix 50 lbs Bentonite Grout in 20 gallons of water then add fine sieve silica sand. The amount of sand and sieve size and silica content will determine the BTU transfer of the grout.
25% Grout = 0.43 BTU Transfer 25% Grout + 350 lbs silica sand = 1.20 BTU Transfer

MATERIAL SPECIFICATIONS

Dry Fineness	70.5% passing 40 mesh screen, 8.5% passing 200 mesh screen
Processed Bulk Density	58.0 ± 4 lbs/ft^3
Actual Bulk Density	146 ± 4 lbs/ft^3
Moisture content	7%
PH	5% slurry, 8 to 10.5
Specific Gravity	9.7 lbs/gal when prepared according to specifications
Slurry Solids Content	20% when prepared according to specifications

TYPICAL CHEMICAL ANALYSIS		**E. P. TOXICITY**		
ELEMENT			STD PPM	TYPICAL ANAL PPM
SiO_2	54.12 %	Arsenic	5.00	0.02
Al_2O_3	19.00 %	Barium	100.00	0.90
Fe_2O_3	6.00 %	Cadmium	1.00	0.02
TiO_2	0.02 %	Chromium	5.00	0.06
CaO	1.30 %	Lead	5.00	0.10
Na_2O	9.70 %	Mercury	0.02	0.0008
MgO	2.00 %	Selenium	1.00	0.07
K_2O	0.46 %	Silver	5.00	0.02
MnO	0.40 %			
Other	0.20 %			
L.O.I	6.80 %			

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