

BH20 is GeoPro's conventional bentonite grout designed for use in applications where thermal conductivity is not of primary concern. Mixed as a 20% - 25% solids grout, BH20 sets into a semi-rigid plug well suited for sealing well casings, decommissioning abandoned wells and for GSHP systems where low thermal conductivity ranges in the bore annulus are acceptable. BH20 is not intended to hold silica sand in suspension to form a thermal grout.

When mixed according to the following specifications, BH20 will yield a bentonite-based grouting material with a minimum thermal conductivity of 0.40 Btu/hr ft °F.†

† Tested in accordance to ASTM D-5334, "Standard Test Method for Determination of Thermal Conductivity of Soils and Soft Rock by Thermal Needle Probe Procedure."

GeoPro grouts are shipped on heat shrunk 54 bag pallets.

### MIXING INSTRUCTIONS

- 1 Fill conventional paddle mixer with required volume of fresh water (according to mix table).
- 2 Start mixer and add a bag of BH20. Let mix for 1-2 minute(s).

### PUMPING

Pump with a positive displacement pump (piston pump recommended) through a 1-¼" inside diameter tremie pipe at a rate of 10 to 25 gallons per minute.

**WARNING:**

If mixed with sand, damage to the pumps and tremie lines may occur. Mix water should be between 50°F and 80°F.

Target Solids Content (% Mixed Weight)	Fresh Water (gal)	Yield / 50lb Bag (gal)
20	24.0	26.7
21	22.6	25.3
22	21.3	24.0
23	20.1	22.8
24	19.0	21.7
25	18.0	20.7

The permeability of this mixture will be less than  $1 \times 10^{-7}$  cm/sec, which has been verified by an independent testing laboratory using ASTM D-5084, "Measurement of Hydraulic Conductivity of Saturated Porous Materials using a Flexible Wall Permeameter, Method C - test with increasing tailwater level".

Sincerely,



Ryan Carda, Lead Support Engineer  
GeoPro, Inc.