



BH20

grout

PHYSICAL SPECIFICATIONS

Thermal Conductivity [†]	0.40 - 0.42	Btu/hr ft °F
Permeability ^{††}	< 1 x 10⁻⁷	cm/s
Percent Solids ²	20 - 25	%
Grout Density ²	9.4 - 10.1	lb/gal
Maximum Particle Size	< 212	µm
Unit Yield Range ²	26.7 - 20.7	gal/unit

Note 1: Permeability verified by an independent testing laboratory over a variety of thermal conductivities.

Note 2: Based on percent solids.

†: Tested According to ASTM D 5334

††: Tested According to ASTM D 5084



Certified to NSF/ANSI 60

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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.

HOW TO MIX

- 1 Fill conventional paddle mixer with required volume of Fresh Water (according to Mix Table).
- 2 Start mixer and add this bag of BH20. Let mix for 1-2 minute(s).

PUMPING

Pump using a positive displacement pump (piston pump is recommended) through a 1¼" nominal 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.

Mix Table		
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

BH20 is primarily designed to be a 20% solids material.

Thermal Conductivity Range

0.40 - 0.42
(Btu / hr-ft-°F)

Thermal Conductivity increases with % solids.

Max Working Time



QUALITY

GeoPro products are the benchmarks for quality, consistency and pumpability within the thermal grout market. We maintain this status through rigorous product testing and the continuation of the industry-forming research we began nearly two decades ago.

When mixed according to our guidelines, BH20 will meet or exceed design specifications without question. These results have been confirmed in thousands of tests performed in our labs on both field-mixed and lab-mixed samples. The permeability and thermal conductivity of BH20 are independently confirmed through third party laboratories.

GeoPro stands behind each and every bag that we ship. GeoPro customers stay GeoPro customers not because we are the only product available and not because we have the lowest price but because the products we sell work as promised and we are always there when you need us.

BENEFITS

BH20 is a stand-alone product requiring only potable water for mixing. BH20 does not require any polymers or additives and will not flash hydrate. The unique chemistry of BH20 decreases the amount and variety of materials required on site while reducing mix times and eliminating the need for on-site chemistry experiments.

- ≡ Does not flash hydrate.
- ≡ Requires no polymers or other chemical additives.
- ≡ Workable for 20 minutes when mixed with potable water at 50°F to 80°F.
- ≡ Permeability independently confirmed by third party laboratory according to ASTM D 5084.
- ≡ Thermal conductivity independently confirmed by third party laboratory according to ASTM D 5334.
- ≡ NSF/ANSI Standard 60 Certified to not contribute contaminants to drinking water that could cause adverse health effects.



GEOPRO, INC.

GeoPro is a leading expert in the geothermal heating and cooling industry. We paved the way for thermal grout and now we provide bentonite grouting products designed to improve the performance and decrease the initial cost of each and every GSHP system.

PRODUCT MISSION

To develop, distribute and sell bentonite-based thermal grouts that are the industry benchmarks for quality, consistency and pumpability.

RESEARCH MISSION

To further the understanding of the thermodynamic and physical characteristics of thermal grouts to guide focused improvement of our products for the geothermal heating and cooling industry.

SOCIAL MISSION

To educate and provide quality services to help guide practitioners and policymakers, to ensure the continued success of the GSHP industry and the subsequent environmental benefits inherent to the wide-scale adoption of this verdant technology.

BH 20 Grout is available in 50lb bags shipped on pallets of 54 bags.