



TGSelect

thermal grout select

PHYSICAL SPECIFICATIONS

Thermal Conductivity Range [†]	0.45 - 1.20	Btu/hr ft °F
Permeability ^{††}	< 6.9 x 10⁻⁸	cm/s
Percent Solids Range ²	30.8 - 71.4	%
Grout Density Range ²	9.8 - 14.9	lb/gal
Maximum Particle Size	< 300	µm
Unit Yield Range ²	16.5 - 42.2	gal/unit

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

Note 2: Based on Thermal Conductivity.

†: Tested According to ASTM D 5334
 ††: Tested According to ASTM D 5084



(877) 580-9348
 www.geoproinc.com

Thermal Grout Select is GeoPro's premium thermal grout base specifically designed to optimize the performance of ground heat exchangers for the geothermal heating and cooling industry. A unique blend of bentonite, Thermal Grout Select is designed for use with high quality silica sand to achieve thermal conductivities from 0.45 to 1.20 Btu/hr ft °F. When using a combination of high quality silica sand and GeoPro's PowerTEC, TG Select will achieve thermal conductivities up to 1.60 Btu/hr ft °F. For PowerTEC mix ratios call (877) 580-9348.

HOW TO MIX

- 1 Fill conventional paddle mixer with required volume of Fresh Water (according to Mix Table).
- 2 Start mixer and add a bag of TG Select. Let mix for 1 minute.
- 3 Slowly add required weight of Silica Compound (should take 1-2 minutes).

Once all Silica Compound is added, continue mixing for an additional 1-2 minutes.

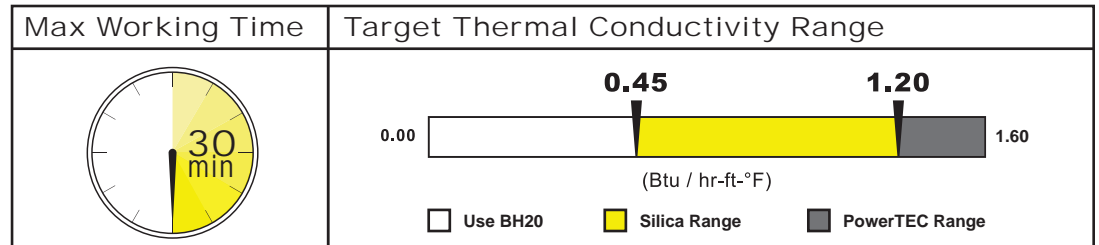
PUMPING

Pump using a positive displacement pump (piston pump is recommended) through a 1¼" nominal tremie pipe at a rate of 5 to 15 gallons per minute.

WARNING:

Adding more than the specified amount of water may make this product more difficult to pump.

Mix water should be between 50°F and 80°F.



Mix Table					
Thermal conductivity values are based on using a silica compound supplied by GeoPro, Inc.					
Target Thermal Conductivity (Btu / hr-ft-°F)	Silica Compound (lb)	Fresh Water (gal)	Yield (gal)	Density (lb/gal)	% Solids (by weight)
0.45	0	13.5	16.5	9.85	30.8
0.57	50	14.0	19.1	11.35	46.1
0.69	100	15.0	22.5	12.23	54.5
0.79	150	16.0	25.7	12.97	60.0
0.88	200	17.0	28.8	13.60	63.8
1.00	250	18.0	32.0	14.07	66.6
1.07	300	19.2	35.7	14.29	68.6
1.14	350	20.4	39.1	14.58	70.2
1.20	400	21.6	42.2	14.93	71.4

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 with approved silica sands, TG Select 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 TG Select 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

TG Select increases the efficiency of ground heat exchangers allowing for shorter design lengths. As a result, TG Select decreases work time and grout volume per bore so you can complete more projects per year with a substantial savings in material cost.

As with all of GeoPro's grouting products, Thermal Grout Select is designed to minimize the variety of materials required on site while maximizing available working time. TG Select does not require any polymers or additives and will not flash hydrate. Only potable water and silica sand are needed to meet performance specifications.

- ≡ Does not flash hydrate.
- ≡ Requires no polymers or other chemical additives.
- ≡ Workable for 30 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.

TESTING

GeoPro will provide free thermal conductivity analysis to any customer. Simply request a testing kit and we will send you three sample containers to be used on multiple batches throughout the duration of your installation. Fill a container and return it to us in the provided box.

Our blind testing procedure is designed so that we don't know what thermal conductivity value you are targeting. We perform our analysis and send back a report of the thermal conductivity your mix actually achieved.

Test results are guaranteed within 3 business days of delivery to our testing facility. If your targeted thermal conductivity is not met, our expert staff will help you to identify the reason and present you with a solution to keep your project on track.

TG Select is available in 50lb bags shipped on pallets of 54 bags each. Approved silica sand availability varies based on location.