

TG Lite | PowerTEC | 1.00 Btu/hr-ft-°F

PRODUCT SUBMITTAL INFORMATION

PRODUCT MANUFACTURER & DESCRIPTION

TG Lite and PowerTEC are manufactured, distributed and supported by GeoPro, Inc.

When supplied by GeoPro and mixed according to our specifications, this TG Lite and PowerTEC recipe will yield a bentonite-based thermal grout that provides an environmental seal in the bore annulus with the engineering properties described.

PRODUCT PERFORMANCE & TECHNICAL DATA

This product complies with IGSHA's Closed-Loop Design and Installation Standards which require:

- Permeability less than 1.0×10^{-7} cm/s per ASTM D-5084.
- Thermal conductivity tested per ASTM D-5334.
- Compliance with NSF/ANSI Standard 60 requirements for purity and suitability for contact with drinking water.

Properties and associated certifications are independently verified by a third party laboratory. Copies of independent test reports are available upon request.

FIELD QUALITY CONTROL

When using TG Lite with PowerTEC, GeoPro strongly recommends a field quality control process consisting of:

- Thermal conductivity testing of grout samples
- Submission of material usage reports

Grout samples should be collected in the field and tested in a lab (per ASTM D-5334) to verify that the product meets minimum thermal performance requirements. Thermal conductivity testing is a free service that GeoPro provides. Sample containers are available upon request.

Material usage reports are available for download on our website. Contact us for more information.

BATCH RECIPE

TG Lite	2	bag(s)
PowerTEC	1	bag(s)
Fresh Water*	33.0	gal (US)
Yield	38.6	gal (US)

*Mix water must be suitable for human consumption

GROUT PROPERTIES

Target Thermal Conductivity	1.00	Btu/hr-ft-°F
Permeability	$<1 \times 10^{-7}$	cm/s
Density	10.5	lb/gal (US)
Percent Solids	32.4	by weight
Percent Active Solids	26.7	by weight

MIXING INSTRUCTIONS

1. Fill conventional paddle mixer with 33.0 gal (US) of fresh water (according to mix table). *Accurate mix water volume measurements are critical.*
2. Start mixer and add 1 bag(s) of PowerTEC.
3. Add 2 bag(s) of TG Lite and mix until uniform (approx. 2-3 minutes).
4. Pump with a positive displacement pump (piston pump recommended) through a 1-¼ in tremie pipe.

PACKAGING INFORMATION

TG Lite is packaged in 50 lb bags with 54 bags per heat shrunk pallet.

PowerTEC is packaged in 32 lb bags with 75 bags per heat shrunk pallet.

created: 2021-05-02