



Applications

- Specifically developed for closed-loop ground coupled heat pump applications where thermal conductivity in the bore column is critical to system performance.

Features

- Engineered for maximum performance with a selectable conductivity range
- Part I and II contain no chemical polymers or organic matter
- Thermal Conductivity (TC) Range: 1.77 – 2.1 Wm⁻¹ K⁻¹
- Permeability*: 7.8×10^{-10} cm/s
- Percent Solids (based on TC): 30.0–65.1%
- Grout Weight (based on TC): 1.59kg/litre
- Linear Shrinkage Potential (based on TC): <math><11\%</math>
- Maximum particle size <math><300 \mu</math>
- Unit yield range (based on TC): 64.4 – 22.6 litres/25kg

*Permeability verified by an independent testing laboratory over a variety of thermal conductivities.

Connect Plus (Part I) combined with Thermo 99+ Sand (Part II) is a unique Bentonite based two-part thermal grout, field mixed, high to extreme-high solids grouting material that can be mixed to meet a range of thermal conductivities from 0.78 to 1.78 Wm⁻¹ K⁻¹.

Connect Plus provides unequalled performance while offering the contractor proven advantages in handling and clean-up. When properly mixed, more than 30 minutes of working time is available before significant hydration occurs. Unlike many other grouting materials, Connect Plus requires less water per delivered litre of yield.

Packing

Part I is packed in 25kg multi-wall polylined paper bags. Each full pallet of **Part I** contains up to 40 bags.

Part II is supplied in 1250kg bulk sacks of 1 tonne pallets containing 25 or 40kg plastic bags.

Mixing

1. Place fresh water* in a conventional paddle mixing tank.
2. Start mixer and add Bentonite Base* (**Part I**). Mix for about 1 minute.
3. Add Thermal Enhancement Compound* (**Part II**) at a moderate rate in about 1 to 2 minutes and continue to mix for another 1 to 2 minutes to obtain a consistent mixture.
4. Pump with positive displacement pump (piston pump strongly recommended) through a 40mm ID Thermo Loop® at a rate of 19 to 56.5 litres per minute.

* Exact quantities will be based on the specified thermal conductivity.

The specifications quoted can only be achieved when Connect Plus is mixed correctly with Thermo 99+ Sand