

BENTOGROUT®

REMEDIAL WATERPROOFING INJECTION GROUT

DESCRIPTION

BENTOGROUT is a high-solids grout consisting of a proprietary blend of bentonite and polymers formulated for sealing water leaks in existing below-grade structures. BENTOGROUT is pumped in a fluid state adjacent to the exterior of the structure where it sets into a gelatinous state forming a waterproofing barrier. BENTOGROUT can be used to seal leaks in concrete, masonry block, brick, and stone foundations.

Installation is fast and easy. Simply mix BENTOGROUT with water and pump it adjacent to the exterior of the building. There it solidifies and expands slightly to form a waterproofing barrier. It can be pumped from above-grade outside the structure without excavating or from the interior of the structure through drilled holes in the walls or slabs. Limited jobsite space is required for injection.

Unlike many remedial waterproofing products that are applied as a surface treatment to the interior of the foundation, BENTOGROUT is applied to the exterior of the building where it stops the water before it can penetrate the structure and further corrode the reinforcing steel. The thick BENTOGROUT barrier covers the exterior surface of the structure filling voids in the adjacent soil and bridging over small cracks in the concrete. Also, BENTOGROUT has the ability to self-seal if the structure settles and therefore its performance is not limited by future hairline cracking in the concrete. BENTOGROUT does not shrink or dry out in sub-surface soil formations and is not affected by freeze/thaw cycling. It remains flexible, maintains a putty-like consistency over time and retains a swell potential to seal itself off. And since BENTOGROUT primarily consists of natural minerals it is friendly to the environment and will last the life of the structure.

APPLICATIONS

- Foundation walls
- Foundation slabs
- Tunnels
- Sheet piling interlock
- Concrete and masonry foundation walls
- Manholes
- Utility vaults

PACKAGING

BENTOGROUT is packaged in 22.6 kg (50 lb.), multi-wall bags; 48 bags per pallet. Store in a dry, moderate temperature location

PREPARATION

Locate and mark all below-grade electrical, sewer and mechanical service lines prior to injection operations. A successful operation requires the installation to occur without mechanical failure of the BENTOGROUT mixing/pumping equipment. Ensure that all required materials are available and in working condition prior to beginning the application. If pumping from the interior of the building, drilling operations should be completed prior to mixing BENTOGROUT.

Exterior Injection Head: The applicator will need to fabricate an "Injection Head" to connect the pump hose to the injection pipe. An example of this "Injection Head" assembly is pictured below. Figure 1 illustrates an Injection Head assembly with a quick disconnect fitting, shut off valve, three way tee and end cap. On the bottom of the three way tee is the injection pipe (length to be determined by project depth requirements; typically 2.4 m - 3.0 m (8-10')). The Injection Head will also serve as a leverage device to hold onto when the applicator is inserting the injection pipe into the soil substrate.

Mix Water: Use only clean water; approximately 14 gallons. BENTOGROUT mixes best in cool water with a pH between 8 and 10. High temperature water can accelerate the set up time of the grout.

Equipment: CETCO recommends the use of the CETCO BENTOGROUT Pump and Mixer as the equipment is designed specifically for BENTOGROUT. Use mixing equipment capable of producing continuous shear and agitation movement. CETCO BENTOGROUT Equipment is comprised of progressive cavity pumps with vertical paddle and horizontal ribbon blender type mixers. It is not recommended to use a piston style pump due to the high spikes in back-pressure generated.

Caution: Pumping any material under pressure can cause lifting or movement of adjacent structures.



CETCO BENTOGROUT Pump, Mixer and Accessories.