



CC AquagROUT

Non-Shrink Underwater Cement Grout

ITEM NUMBER CC Aqua Grout

DESCRIPTION

CC AquagROUT is a high precision, non-shrink, natural aggregate, cementitious grout designed to be mixed and placed for underwater or tidal zone grouting applications. AquagROUT can be placed at a workable consistency to meet the demanding job requirements of underwater grouting.

INDUSTRY USES

A variety of underwater grouting applications.

BENEFITS AND FEATURES

- Applications requiring grout to be pumped.
- Contains high quality, well graded aggregates for high strength and workability
- Sulfate resistant
- Positive expansion for maximum durability and adhesion
- Extended work time to ensure sufficient time for placement
- Free of bleeding, segregation, wash out or settlement

TECHNICAL DATA

LABORATORY TESTS:	RESULTS
Initial Set Time @ 72°F - fluid	4.5 hours
Final Set Time @ 72°F - fluid	6.0 hours
Flowability CRD C-227 - plastic	124 – 145 %
Compressive Strength: ASTM C 109 plastic	1 day 4,500 psi 7 days 5,500 psi 28 days 7,500 psi
Flexural Strength (ASTM C 190) flowable	28 days 1200 psi
Tensile Strength (ASTM C 190) plastic	28 days 550 psi
Typical Water Requirements:	Plastic: 6 pints per 50 lb. Flowable: 6.5 pints per 50 lb. Fluid: 8.5 pints per 50 lb.

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION, TEST METHOD, ACTUAL SITE AND CURING CONDITIONS. MANUFACTURER ALWAYS RECOMMENDS A MOCK UP AND PRECONSTRUCTION MEETING PRIOR TO APPLICATION.

COVERAGE

Approx. 0.45ft³/50 lb. bag

PACKAGING

50 lb. bag & 3000 lb. Super Sacks

Shelf Life: 1 year in original unopened container

Storage Conditions: Store in unopened container in a dry and cool area Application Temperature Range: 40 F – 90° F (5° C – 32° C).



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LIMITATIONS

Apply only when the surface and ambient temperature are 45-50°F (7-10°C) and rising. See Cold Weather Application guidelines, per ACI, for applications in temperatures less than 50°F (10°C). Applications made during temperatures greater than 85°F (29°C) should follow Hot Weather Application guidelines, per ACI.

Do not add more water than specified. Not recommended for placing below 35°F. Do not re-temper. Do not vibrate. Do not use any additives including accelerators, water reducers, or air entraining agents. Do not over water. This can cause bleeding or separation. Do not retemper. Do not add cement, sand or admixtures. Do not mix more than can be used in twenty minutes.

Refer to safety data sheet prior to use.

Avoid direct contact with skin and eyes. Product contains Portland Cement. May cause irritation and possibly cement burns. Wash exposed skin area promptly with water. In case of eye contact, flood eyes repeatedly with water and call physician. Do not take internally. Harmful if ingested. Keep product out of reach of children.

SURFACE PREPARATION

Substrate must be clean and sound. All loose material must be removed. Substrates which are permanently immersed should be sand blasted or cleaned with a high-pressure water jet. Non-immersed or intermittently immersed substrates can also be prepared using these techniques. Depending on the circumstances, scabbling or brush hammering may be appropriate. In view of the fluid nature of AquagROUT, all formwork must be grout-tight. This can be achieved using foam rubber sealing strips at the edges.

MIXING

The quantity of water required to achieve a flowable consistency must be accurately measured for each mix. Start with 6 pints and add additional water to bring the consistency to a fluid yet cohesive mix. Do not exceed 8.5 pints of water. Each 50-lb. bag requires approximately 6.5 – 8.5 pints of water. A mechanically powered grout mixer must be used. Ensure that the machine capacity and the number of workers are adequate to enable grouting to be carried out as a continuous operation.

Place the specified amount of water in the mixer. Slowly add the contents of AquagROUT bag, mixing continuously. When all the contents are added, mix continuously for a minimum of 3 minutes making sure that a smooth, uniform mix is obtained. Pass the mixed grout through a #4 sieve to remove any lumps prior to placing. Important – The need to observe the accurate gauging of water addition and the stated mixing time should be stressed to all operatives and, wherever possible, included in specifications.

APPLICATION

AquagROUT may be placed in thickness up to 4' in one pour when placed above water. When placed under water, the heat sink effect in this environment permits thickness up to 7' to be placed. For thicker sections, up to 10' above water and 20' under water, it is necessary to fill out AquagROUT using a clean, rounded and well graded aggregate. The quantity of aggregate added should not exceed 1 part aggregate to 1 part AquagROUT by weight. For such mixes a concrete mixer must be used. Unrestrained surface areas should be kept to a minimum. Excessively large volumes should require a thermal analysis to determine any limitations on pour size.

APPLICATION

Place the grout within 20 minutes of mixing to gain full benefit of the expansion process. Continuous grout flow is required and the grout should be poured or pumped through a flexible tube to the lowest point in the form. At the start of the operation the grout flow should be restricted to avoid any water entrapment. The bottom of the tube SHOULD NOT be raised above the level of the grout.

CLEAN UP

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

CAUTION

Safety Considerations

- Use adequate ventilation.
- Use of NIOSH/MSHA approved dust vapor respirator, safety goggles and protective gloves are recommended.

First Aid

- EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.



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CC Aquagrout

- **RESPIRATORY CONTACT:** Remove person to fresh air. If the discomfort persists, breathing difficulty occurs, or if swallowed seek medical attention.
- **SKIN CONTACT:** Remove any contaminated clothing. Wash skin thoroughly with soap and water. If irritation persists, seek medical attention.

WARRANTY

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