

PREPRUFE[®] Grout CEM 100

Cementitious, non-shrink grout for re-profiling of pile heads

Product Description

PREPRUFE[®] Grout CEM 100 is a high strength, cementitious, non-shrink grout for re-profiling of pile heads prior to the application of PREPRUFE[®] Grout EG 75 or for concrete substrate repairs. When used with PREPRUFE[®] Grout EG 75, continuity of PREPRUFE[®] waterproofing systems at pile heads and similar structural penetrations is achieved. PREPRUFE[®] Grout CEM 100 contains cements, graded mineral aggregates and polymers which are pre-blended in a 50 lb bag. Measured addition of the recommended amount of clean water produces a free flowing, high strength, non-shrink grout.

Product Advantages

- Compatible with PREPRUFE[®] Grout EG 75
- Low permeability
- Shrinkage compensated (non-shrink)
- High bond to concrete substrates
- Rapid strength gain
- High compressive and flexural strengths
- Flowable consistency
- Chloride free
- Easy mixing and placing

Product Applications

- Recommended thickness range 1 in. (25 mm) to 4 in. (100 mm)
- Re-profiling of pile heads before the application of PREPRUFE[®] Grout EG 75
- Re-profiling of structural penetrations through PREPRUFE[®] sheet waterproofing systems before the application of PREPRUFE[®] Grout EG 75

System Components

To achieve continuity of PREPRUFE[®] sheet waterproofing systems at pile heads and similar structural penetrations, you will need the following system components.

- PREPRUFE[®] Grout EG 75 – impermeable epoxy grout for waterproofing of pile heads (see separate product data sheet)
- BITUTHENE[®] LM – high performance, liquid membrane
- PREPRUFE[®] 300R – sheet membrane
- PREPRUFE[®] Tape – for sealing of laps in PREPRUFE[®] sheet membranes

Health and Safety

Before using this product, read the product labels and comply with all health and safety advice. Further health and safety information is available from the products Safety Data Sheet (SDS) available from GCP Applied Technologies or on line at www.gcpat.com.

Applications

Surface Preparation:

Concrete substrates should be free from laitance, surface contaminants and curing compounds. Remove any friable material and laitance by mechanical means. Remove rust from any reinforcement that will be encapsulated by the cementitious grout. Saw cut where necessary to avoid feather edges. Continuously pre-soak the substrate with clean water for at least an hour before grout to ensure substrate saturation. Remove any ponded water immediately before grout application manually or with an air lance. Temperature at time of placement, should be above 40 °F (4 °C).

Formwork:

Formwork must be constructed to be leak-proof as PREPRUFE® Grout CEM 100 is fluid when mixed. Seal all joints in formwork with of sealant/adhesive. All formwork should be coated with a mineral oil or water based release agent, before the grout is placed.

Mixing and Placing:

Measured addition of the correct amount of clean water is essential for grout consistency and to avoid cracking.

Mix PREPRUFE® Grout CEM 100 thoroughly for approximately four to five minutes to a uniform consistency with a mortar mixer (stationary barrel mixer with moving blades). For optimum performance, maintain grout at ambient temperatures between 40 °F and 90 °F (4 °C and 32 °C). Use heated or chilled water to help adjust working time. Mix PREPRUFE® Grout Cem 100 with 2¾ to 3¼ (2.6L to 3.1L) quarts potable water per 50 lb. bag. Working time is approximately 30 minutes at 70 °F (21 °C). Follow printed instructions on the package. Always add mixing water first to mixer followed by grout. Do not mix more grout than can be placed within 30 minutes.

Surface Preparation While Plastic

To maximize interface adhesion between PREPRUFE® Grout CEM 100 and PREPRUFE® Grout EG 75, the upper surface of PREPRUFE® Grout CEM 100 should be scored with a notched trowel, while the material is in its plastic state. Alternatively, wait until the cementitious grout has hardened and prepare the surface by sand blasting or a similar mechanical method.

Cleaning:

Clean mixers and trowels with water.

Consult with your GCP Applied Technologies Technical Representative or local sales representative for any questions or guidance on proper detailing.

Supply, Estimating and Storage

SUPPLY	TYPE	COMMENTS
Packaging	50lbs	Polyethylene line paper bag
Yield at Flowable consistency	11.3 liters	
Shelf life	12 months	From date of manufacture

Store unopened in original packaging in cool dry conditions.

Shelf life in these conditions is 12 months from date of manufacture.

PREPRUFE[®] Cementitious grout CEM 100 data sheet

PREPRUFE [®] GROUT CEM100	TYPICAL VALUE	TEST METHOD
Thickness range	1 - 4 in	
Fresh wet density at fluid consistency	18.4 lbs/gal	ASTM C138
Working time at 73° F	30 mins	
Compressive strength @7day, 73° F	8700 psi	ASTM C 109
Compressive strength @28day, 73° F	10,200 psi	ASTM C 109
Flexural strength @28day, 73° F	1450 psi	ASTM C293
Bond strength to concrete @28day, 73° F	215 psi	ASTM D 4541
Water penetration	<0.4 in	BS 12390-8

Note: All test results shown in this data sheet are determined under laboratory conditions, using product samples taken from inventory in original packaging, without alteration or modification.

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