

POST CRETE GROUT/WS[®]

HYDRAULIC CEMENT

Data Sheet – POSTCRETEGROUT/WS[®] Hydraulic Cement

Product Description

POSTCRETE-GROUT/WS[®] Hydraulic Cement is hydraulic cement blended with proprietary ingredients.

Recommended Uses

Use to anchor bolts, pipe, ornamental iron, seats, signs, grout base plates, and equipment pads, fill voids, instantly stop running water or seepage through holes or cracks in concrete or masonry walls, pools, water storage facilities, tunnels, fountains, water channels, ponds, and piers. Use to patch mortar joints, cracks, and holes in masonry walls.

Benefits / Features

- User-friendly
- Easy clean-up
- Stops water, even under pressure
- 3-5 minute set time
- Rapid strength development
- Excellent bond strength
- Can be top coated in 24 hours
- Gets stronger as water tries to penetrate the repair
- Non-shrink/Volume stable/Non-chloride
- Freeze-thaw and sulfate resistant

Limitations

Not intended for applications on unsound concrete or like surfaces. Mix only enough for immediate use.

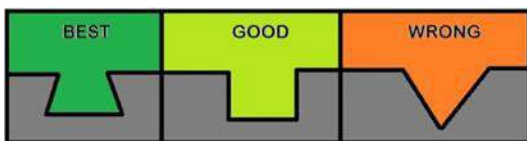
POSTCRETE-GROUT/WS hydraulic cement sets in 3-5 minutes and cannot be reworked once it has set.

Surface Determination

Requires clean and sound concrete to bond.

Surface Preparation

All repair areas should be free from mildew, dirt, dust, and loose material. For anchorage, core dialer chisel a hole in the concrete. The hole should be at least 1" in diameter larger than the size of the item to be anchored. Clean the hole or crack thoroughly by wire brushing, chiseling or scraping loose materials until a sound surface remains. Small holes and cracks need to be enlarged using the correct tools to a minimum of 3/4". The edges must be square or undercut, avoiding V-shaped cuts (see below). Wash out the hole or crack with water. For dry repair applications, wet the repair area with water leaving it Saturated Surface Dry (SSD) during the repair.



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For Best Results

For best results, the water temperature should be between 55°F and 75°F.

- Warmer water will accelerate the set of the material
- Cooler water will slow the set of the material

Mixing

Organize work so that all personnel and equipment are in place before mixing. Roll or shake the sealed pail of **POSTCRETEGROUT/WS** cement to break up the settlement. Only mix the amount of **POSTCRETEGROUT/WS** cement that can be used within 3-5 minutes.

1. Mix 4 parts of **POSTCRETEGROUT/WS** cement with one part of clean, potable, drinkable water until the material starts to form a putty consistency.
2. Putty consistency - Using rubber gloves, roll the mixture between your hands until the material starts to become warm and becomes putty like to the touch.
3. For grouting, add a small amount of water to mix to obtain a more fluid consistency for application. Omit step 2 and only mechanically mix.

Placement

For dry repair applications, make sure the surface is SSD.

To stop surface leaks not under pressure:

1. Starting at the top of the crack, work your way down. Press the Water Stop into place.
2. Excess material can be removed to form a uniform surface.

To stop leaks under pressure or under water:

1. Starting at the top of the crack, work your way down. Press the Water Stop into place.
2. Maintain constant pressure on the applied material until the final set has been achieved.
3. Excess material can be removed to form a uniform surface.

To use as a grout:

Pour or trowel into or under the item making sure to fill without voids. Place actor or embed in the prepared hole and provide support for the item and avoid moving or disturbing item until sufficient strength is achieved.

Coverage

One pound fills approximately 17 cubic inches and will repair a crack 3/4" x 3/4" x 30" long.

Clean up

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Water-soluble before drying. Clean container and tools before material drying.

Curing

Damp cure is always suggested, begin immediately after placement and for a minimum of 1 hour.

Set Time (ASTM C-266)

Initial: 2 minutes*

Final: 3 minutes*

*Based on 70°F Water Temperature

Shelf Life

Two years if stored in an unopened pail according to ACI Guidelines.

Packaging

Pail – 50 lbs. (net weight).

Pallet – 36 pails per stretch wrapped pallet.

10# Pail

Freight

Class 55

Temperature

Below 55°F temperature delays set time and make it difficult to stop flowing water.

POSTCRETE-GROUT/WS® Hydraulic Cement Testing Results

Table 1. Fresh test data (ASTM C1473 & ASTM C191).

Flow (ASTM C 1473)	>150%
Initial Time of Set (ASTM C191)	7 1/2 Min.
Final Time of Set (ASTM C191)	10 Min.

Table 2. Slant shear test data (ASTM C882).

Cylinder Identification	Test Date (Age)	Elliptical Area, in.2	Load, lb.	Compressive Strength, psi	Average Compressive Strength, psi
A	August 13, 2015 (1 day)	14.13	15,480	1,096	1,140
B		14.13	16,720	1,183	
C		14.13	15,960	1,130	
D	August 19, 2015 (7 days)	14.13	34,140	2,416	2,410
E		14.13	34,680	2,454	
F		14.13	33,240	2,352	

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Table 3. Compressive test data (ASTM C109).

Cube Identification	Test Date (Age)	Area, in.2	Load, lb.	Compressive Strength, psi	Average Compressive Strength, psi
H-1	July 21, 2015 (3 hours)	4.01	9,390	2,342	2,380
H-2		4.02	9,480	2,358	
H-3		4.02	9,810	2,440	
H-4	July 22, 2015 (1 day)	4.04	12,460	3,084	3,030
H-5		4.05	11,930	2,946	
H-6		4.08	12,490	3,061	
H-7	July 28, 2015 (7 days)	4.05	15,320	3,783	3,653
H-8		4.05	14,620	3,607	
H-9		4.05	14,450	3,568	
H-10	August 18, 2015 (28 days)	4	18,580	4,645	4,580
H-11		4.04	18,510	4,582	
H-12		3.98	17,990	4,520	

Table 4. Flexural strength test data (ASTM C293 - Modified).

Specimen Identification	Test Date (Age)	Load, lb.	Compressive Strength, psi	Average Compressive Strength, psi
A	August 13, 2015 (1 day)	190	855	825
B		180	810	
C		180	810	
D	August 19, 2015 (7 days)	220	990	1,005
E		230	1,035	
F		220	990	
D	September 18, 2015 (7 days)	260	1,170	1,200
E		270	1,215	
F		270	1,215	

Table 5. Length change results for continuous wet cure, reported as a percentage of the original length (ASTM C157).

Age	Bar 1	Bar 2	Bar 3	Average
28 days	+0.006	+0.005	+0.005	+0.005
56 days	+0.007	+0.008	+0.005	+0.007

Notes: The bars were demolded at 24 hours, and the initial comparator reading was taken. The bars were then cured in lime water at 73±3°F until the age of 28 days. At the age of 28 days, the bars were then air dried in a room maintained at a temperature of 73±3°F during testing.

Table 6. Length change results for wet plus dry cure, reported as a percentage of the original length (ASTM C157).

Age	Bar 1	Bar 2	Bar 3	Average
28 days (wet)	+0.006	+0.007	+0.005	+0.006
56 days (28 days dry)	-0.151	-0.143	-0.147	-0.147

Notes: The bars were demolded at 24 hours and the initial comparator reading was taken. The bars were then cured in lime water at 73±3°F until the age of 28 days. At the age of 28 days, the bars were then air dried in a room maintained at a temperature of 73±3°F and a relative humidity of 50±4%.

Table 7. Permeability test results (ASTM C1202).

Specimen Identification	Total Charge Passed, Coulombs	Average Total Charge Passed, Coulombs	Chloride Ion Permeability
Specimen A	1620	1606	Moderate
Specimen B	1592		

Caution:

For further information, please refer to the Safety Data Sheet.

Warranty:

UNIQUE Paving Materials Corporation (UNIQUE) warrants that at the time and place we make shipment our materials will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY, ABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM OR TRADE OR OTHERWISE. As the exclusive remedy for breach of this warranty, we will replace defective materials, provided, however, that the buyer examines the material when received and promptly notifies us in writing of any defect before the materials are used or incorporated into structure. Three (3) months after UNIQUE has shipped the materials, all our warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates, and no action for breach of any duties may thereafter commence. UNIQUE shall in no event be liable for consequential damages. Unless otherwise agreed to in writing, no warranty is made with respect to materials not manufactured by UNIQUE. We cannot warrant or in any way guarantee any particular method of use of application or the performance of materials under any particular condition. Neither this warranty nor our liability may be extended or amended by our salespeople, distributor or representatives or by any sales information or drawings.

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