

MasterFormat<sup>®</sup> 03 01 30

## CPD<sup>®</sup> FASTCRETE H.S.

### DESCRIPTION

CPD<sup>®</sup> Fastcrete H.S. is a unique microsilica, hydraulic cement based patching compound used for interior and exterior concrete repair. It is a fast setting high strength compound with exceptional bond strength and durability, when cured, it is similar to the color of concrete.

### WHERE TO USE

Applications to pre-cast and cast-in-place concrete include expressways, bridges, curbs and gutters, sewer pipes, parking decks, piers, abutments, piles and drains.

### BENEFITS

- similar to the color of concrete compared to most other concrete repair mortars
- fast setting
- high bond strength
- non-toxic
- chloride free
- non-metallic

### PROPERTIES (@ 23°C)

Work time .....	7 -10 minutes
Initial set .....	20 -30 minutes
Open to Traffic (foot) .....	2 hours
Open to Heavy Traffic .....	24 hours
Consistency.....	Non-sag consistency allows placement and finishing without forms.
Compressive Strength (ASTM C109-77)	
1 day .....	23.3 MPa (3,379 psi)
7 days .....	46.2 MPa (6,699psi)
28 days .....	52.2MPa (7,569 psi)
Flexural Strength (ASTM C348).....	6.4MPa (928psi)
Bond Strength (ASTM C882)	
1 day .....	8.3MPa (1,203psi)
7 days .....	10.4MPa (1,508psi)
Absorption (ASTM C642)	
28 days .....	5%
Length Change (ASTM C157)	
28 days (in water) .....	+0.051%
28 days (in air).....	-0.095%
Surface Scaling (BNQ 2621-905)	
56 cycles .....	0.08kg/m <sup>2</sup> (0.016lbs/sqft)

Freeze/Thaw Cycling Modulus of Elasticity (ASTM C666) 300 cycles.....	99%
Acid Soluble Chloride (ASTM C1152) 7days.....	0.15kg/m <sup>2</sup> (0.030lbs/sqft)
Rapid Chloride Permeability (ASTM 1202) 28 days.....	1147 coulombs

The above information is representative of typical values obtained under our laboratory conditions. Variations can be expected due to on site conditions and/or other testing methods.

### APPLICATION

#### SURFACE PREPARATION

Concrete substrate must be clean, sound and free from dust, loose particles, oil, grease and all other foreign matter. If concrete is punky, chip down to sound concrete. Extremely dirty or heavily contaminated areas will require either mechanical or chemical cleaning.

#### PLACING

All areas to be patched must be pre-dampened with water prior to placing CPD<sup>®</sup> Fastcrete H.S. and receive a slurry bond coat of CPD<sup>®</sup> Fastcrete H.S. and water or CPD<sup>®</sup> Concentrated Latex Adhesive (diluted 1:1 with water)

Apply mixed CPD<sup>®</sup> Fastcrete H.S. with a trowel to the primed surface while it is still tacky. For placement over 25 mm (1") CPD<sup>®</sup> Fastcrete H.S. can be extended with clean, washed and dried pea gravel. Add ½ bag of pea gravel to one bag of CPD<sup>®</sup> Fastcrete H.S. (1:2 by volume). A rotary mixer should be used to mix an extended mix.

#### MIXING

Mix approximately 3.8L (1 U.S. Gal.) of clean potable water with each 20 kg (44 lbs.) bag of CPD<sup>®</sup> Fastcrete H.S. Always add the water to the mixing container before adding the CPD<sup>®</sup> Fastcrete H.S. powder. Mix no more than 1 bag at a time. If mixing in a rotary mixer use a small mixer with rubber tipped paddles. Small quantities of 2-8 kg (4.4 - 17.6 lbs.) can be mixed in a bucket by hand. Thoroughly mix the product to the consistency of a workable 'no slump mortar'. Do not mix more than two minutes.

Rev. 02.26

## **FINISHING AND CURING**

Finish by hand to a smooth even surface after placing.

Troweling should be completed within 5 minutes after mixing. Materials may be shaved after initial set. Apply a quality curing compound such as CPD® Cipadeck Cure and Seal immediately after initial set or wet cure patch (using burlap) for 48 hours minimum.

## **LIMITATIONS**

- not for use below 5°C (40°F)
- not recommended for structural grouting applications
- not recommended for application under 13mm (½")
- do not exceed 50mm (2")

## **COVERAGE**

0.011m<sup>3</sup> (0.40 ft<sup>3</sup>) per 20 kg (44 lbs.) bag.

## **PACKAGING**

20 kg. (44 lbs.) Paper valve bags.

## **CLEAN UP**

Clean all equipment with water immediately after use.

## **STORAGE**

May be stored outside on pallets short term under a tarp as long as the product is kept dry. Store in a dry heated warehouse for long term storage.

## **SAFETY PRECAUTIONS**

Consult Safety Data Sheet for specific instructions. SDS # 254.

## **SHELF-LIFE**

One year when stored in dry warehouse on pallets in original bags. Protect from moisture.

## **WARRANTY**

The recommendations made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job-conditions, methods used and types of surfaces on which the product is applied. The users shall make their own tests to determine the suitability of such products for any particular purpose.

CPD® makes no warranties with respect to this product, expressed or implied, including without limitation, the implied warranties of merchantability or fitness for a particular purpose.

CPD®'s liability shall be limited in all events to supplying sufficient product to re-treat and/or repair the specific area to which CPD® product has been applied. CPD® reserves the right to have the true cause of any difficulty determined by accepted test methods. CPD® shall have no other liability, including liability for incidental, consequential or resultant damages, however caused, whether due to breach of warranty, negligence, or strict liability.

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