

# CPD<sup>®</sup> RAPIDCRETE (FIBER GRADE)

## DESCRIPTION

CPD<sup>®</sup> Rapidcrete (Fiber Grade) is a ready-to-use, fast setting, high strength no slump, patching material. It is non-metallic, non - staining, and non-toxic.

## WHERE TO USE

CPD<sup>®</sup> Rapidcrete (Fiber Grade) is particularly useful when downtime is at a premium and where low temperatures do not allow for proper cure of ordinary cement based repair compounds.

Applications include, but not limited to, repairing concrete floors in factories, warehouses, parking decks and ramps, loading dock areas and cold storage rooms, concrete bridge deck repairs and concrete runway repairs.

## BENEFITS

- \$ fast setting
- \$ no slump consistency
- \$ high strength
- \$ excellent freeze-thaw resistance
- \$ low permeability
- \$ high resistance to sulphate attack
- \$ non-toxic
- \$ chloride free
- \$ excellent for vertical repairs (maximum 25mm (1") per lift)

## PROPERTIES

Compressive Strength** (ASTM C109-77)@ 21°C(70°F) (Plastic – Mortar Consistency) (4.5L water/25 kg bag)/(1.19 U.S. gal/55 lb)	
2 hours.....	25.6 MPa (3,720 psi)
4 hours.....	28.5 MPa (4,135 psi)
24 hours.....	46.2 MPa (6,700 psi)
3 days.....	54.5 MPa (7,900 psi)
28 days.....	65.5 MPa (9,500 psi)
** This mix was extended with an equal weight of washed 10mm pea gravel. Strengths are similar when an unextended mix is used. (See application instructions.)	
Slant Shear Bond Strength (ASTM C882-91)	
	<b>4 L water/25 kg bag (1.06 U.S. gal/55 lb)</b>
1 day .....	14 MPa (2,043 psi)
28 days .....	19 MPa (2,770 psi)

Chloride Permeability (AASHTO T-277-831) 23°C (73°F) 4L Water/25 kg bag (1.06 U.S. gal/55 lb) .....	208 Coulombs
--	--------------

Water Absorption (M1-67-92) 4 L Water/25 kg bag .....	3.67%
(1.06 U.S. gal/55 lb)	

Salt Scaling (MTO Method 1315-07) 50 cycles.....	0.467 kg/m <sup>2</sup>
---	-------------------------

The above information is representative of actual production runs. Independent test results may vary from the above by approximately ? 10 %.

## APPLICATION

### Surface Preparation

The concrete substrate to receive the patching compound must be clean and sound. Square out the patch area minimum 6.4 mm ( 1/4") and chip out all contaminated concrete. Soak patch area with water so that the concrete is thoroughly damp (no free standing water should be present). For substrate temperatures below 10°C (50°F) use a slurry bond coat of CPD<sup>®</sup> Rapidcrete (Fiber Grade) and water. For substrate temperatures above 10°C (50°F) CPD<sup>®</sup> Concentrated Latex Adhesive, diluted 1:1 with water, can be mixed with CPD<sup>®</sup> Rapidcrete (Fiber Grade) powder to form a slurry bond coat mix. Scrub into the concrete then apply the mixed material as soon as possible. The mixed CPD<sup>®</sup> Rapidcrete (Fiber Grade) must be applied before the slurry bond coat sets.

## MIXING

CPD<sup>®</sup> Rapidcrete (Fiber Grade) should be mixed to a trowel grade consistency. This product can also be mixed with a dilute latex solution to improve certain physical properties if desired. As with all cementitious products, use only enough water to achieve the desired consistency. Use between 3.75L - 4.0L (1.0 US gal - 1.05 US gal) of water per bag depending on the consistency desired. Do not add more than 4.5L of water per 25 kg bag (1.2 US gal/55 lb).

03920-40-0808

CPD recommends extending CPD<sup>®</sup> Rapidcrete (Fiber Grade) with an equal weight (or loose volume) of clean 10mm (3/8") pea gravel for all patching over 32 mm (1 1/4") in depth.

### **CURING**

Wet curing of all patches and exposed Rapidcrete (Fibre Grade) areas is required as specified below. Curing by application of a film forming curing compound is **not** recommended as a direct substitute for wet curing. Once the CPD<sup>®</sup> Rapidcrete (Fiber Grade) has set (the material has a patchy-like finish) which is usually 30-45 minutes after placing @ 20°C (70°F), the product must now be wet cured for a minimum of 1-2 hours. This can be achieved by keeping the applied product wet covered with a layer of water, or using burlap that is continually kept saturated with water. If neither of these curing methods are possible contact your CPD technical representative.

### **LIMITATIONS**

- \$ not for use on substrates below 0°C (32°F)
- \$ not recommended for grouting applications
- \$ not suitable for acid exposure
- \$ maximum service temperature 176°C (350°F)
- \$ minimum thickness 6.4mm (1/4")

### **COVERAGE**

0.014m<sup>3</sup> (0.50 ft<sup>3</sup>) per 25 kg (55 lb) bag.

### **PACKAGING**

CPD<sup>®</sup> Rapidcrete (Fiber Grade) is packaged in:  
25 kg (55 lbs.) multi wall bags.  
CPD<sup>®</sup> Concentrated Latex Adhesive is available in:  
3.79L (1 U.S. gal), 18.9L (5 U.S. gal) and 208L (55 U.S. gal) containers.

### **CLEAN UP**

Clean all mixers and tools with water before product hardens.

### **STORAGE**

May be stored short term anywhere under tarp on pallets as long as the product is kept dry. Dry heated warehouse storage is recommended for extended storage.

### **SHELF LIFE**

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

### **SAFETY PRECAUTIONS**

Consult Material Safety Data Sheet ( M.S.D.S.) for specific instructions. MSDS # 265.

### **WARRANTY**

The recommendations made and the information herein is based on our own 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<sup>®</sup> makes no warranties with respect to this product, expressed or implied, without limitation, the implied warranties of merchantability or fitness for a particular purpose.

CPD<sup>®</sup>'s liability shall be limited in all events to supplying sufficient product to re-treat and/or repair the specific area to which CPD<sup>®</sup> product has been applied.

CPD<sup>®</sup> reserves the right to have the true cause of any difficulty determined by accepted test methods. CPD<sup>®</sup> 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.

THIS WARRANTY MAY NOT BE MODIFIED OR EXTENDED BY REPRESENTATIVES OF CPD<sup>®</sup>, ITS DISTRIBUTORS OR DEALERS.