

# CM 2000

A Two-Component Ultra Low Viscosity, Rapid Curing Polyurea Concrete Repair Material

## Description

*CM 2000 is an ultra low viscosity, two component, rapid cure, and chemical resistant material for the repair of hairline cracks or, deteriorated and spalled concrete. CM 2000 can be installed in temperatures as low as - 40°F (- 40°C)*

environment. CM 2000 should not be used to fill contraction/control or expansion joints. The cured color of CM 2000 will be affected by the color of sand used.

*Surface Preparation:* All concrete to be repaired must be mechanically cleaned and roughened to insure proper bonding. All loose deteriorated concrete, dust, debris, and contaminants must be completely removed prior to the installation of CM 2000.

*Mixing Instructions:* **BULK;** Small amounts (1 pint or less, 473 ml) of CM 2000 in bulk form can be hand mixed. Thoroughly mix both part A and B separately before combining. Mix both Part A and Part B together for 1 minute making sure the mixed color is uniform and free of streaking. Mix quickly and use immediately.

## Manufacturer

Conspec  
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**Technical Service** (877) CONSPEC

## Application

Installation of CM 2000 should not be performed until concrete is a minimum of 28 days old. All concrete must be dry for at least 5 days prior to the installation of CM 2000. Wet or moist concrete will cause out gassing, swelling and bubbling to occur. Damp areas must first be primed with CM 2000 to react with and drive out any moisture. Damp areas for repair must be made as dry as possible, then primed with neat (no sand) CM 2000 and given 10 minutes to cure prior to the overall installation of CM 2000. Installation should be performed during the cool part of the day, or in a temperature controlled

## Use

CM 2000's primary use is for the rapid repair of hairline cracks in horizontal concrete. CM 2000 can also be used as a rapid set concrete repair mortar when mixed with clean silica sand. CM 2000 can be used for rapid permanent repair of divots, spalls, and damaged control joint nosings. CM 2000 penetrates into concrete and cracks creating a permanent bond and chemical resistant seal in the process.

Typical areas of use include warehouse floors, cold storage & freezers, manufacturing facilities, industrial facilities, parking decks, bridge decks, water & waste water facilities, and in cold applications where time and temperature are of prime concern.

## Benefits

- Cures at temperatures as low as - 40°F (- 40°C)
- Open to traffic in 15 minutes
- Ultra low viscosity, excellent penetration
- Does not harden or embrittle
- Chemical resistant
- Self leveling
- Excellent load transfer
- Available in bulk or cartridges
- 1:1 mix ratio

A P P L I C A T I O N		P R O P E R T I E S				
<b>Solids Content</b>						89%
	After 3 min. cure					100%
<b>Shore D Hardness</b>	ASTM D 2240					71
<b>Elongation</b>	ASTM D412					6%
<b>Tensile Strength</b>	ASTM D 412					4,500 psi ( )
<b>Compressive Strength</b>						
	Neat	ASTM D 412				3,800 psi
	with Sand					4,450 psi
<b>Viscosity</b>						20 cps
<b>VOC, A&amp;B combined</b>						5.5 g/l
<b>Shrinkage</b>						none
<b>Pot Life</b>						5 minutes at 72°F (22.2°C)
<b>Tack Free</b>						15 minutes at 72°F (22.2°C)
<b>Final Cure</b>						22 minutes at 72°F (22.2°C)
<b>Standard Color</b>						Gray
<b>Cure Time</b>	Tack Free – 15 min., initial cure 90 min., final cure to reach full chemical resistance and mechanical properties - 7 days.					
<b>COVERAGE RATES: Quantity Estimates</b>						
Parts of Sand per	Yield Mortar	Depth vs Coverage - per sq. ft.				
Gallon of CM 2000	Gallons	1/4"	1/2"	3/4"	1"	2"
1	1.6	10.24	5.12	3.41	2.57	1.29
2	2.2	14.08	7.04	4.69	3.52	1.76

**CARTRIDGES** should be vigorously shaken for approximately 2 minutes before using. Some slight black pigment separation may be noticed during mixing, this is normal. Be careful not to displace or loose the small black back flow restrictor packed with the cartridges. This must be fitted into the cartridge neck before placing the retaining nut and static mixing nozzle.

Spall and divot concrete repair using CM 2000 as a polymer mortar, should be performed using bulk mixing. To make a mortar mix using CM 2000, use from 1.5–2 parts by volume clean dry quartz sand depending upon the situation and flow requirements for the particular repair. Premix Part A and Part B then add either Part A or B of the CM 2000 to the sand, then mix making sure all sand is completely wet out. After sand has been mixed and wet out, add the other part of the CM 2000 and mix quickly for 1 to 1 1/2 minutes. Mortar mixes must be used within 4 minutes. Once CM 2000 containers are opened, the CM 2000 must be used. Recapping and reuse of cartridges must be avoided.

## Installation

To repair spalls and divots in concrete, prepare a mortar mix as instructed above. Remove all deteriorated concrete and square up edges. Clean out all dust, loose concrete and debris. Prime the work surface with neat CM 2000.

Chase cracks using a diamond blade making sure that the edges are square. Vacuum out crack with crevice tool or blowout with clean dry oil free air, then prime with CM 2000. Immediately fill the crack to grade with clean 4010-grade quartz sand. Flood the sand with CM 2000 until entire crack is saturated, then broadcast additional sand on top to fill in low spots. Finish with a trowel across top, to achieve a flush surface. Do not overwork. Overworking will make the surface appear rough.

**CARTRIDGES:** Mix per above instructions prior to use. For dispensing CM 2000 using cartridges first remove the plastic cap and D rings from cartridge neck. Place the back flow restrictor into the cartridge neck carefully aligning the small hole openings. Attach the static mixer nozzle over the back flow restrictor and to the cartridge with the retaining nut, and then finger tighten. Load a cartridge into the dispensing gun keeping

cartridges in an upright position. Remove air from cartridges by slightly squeezing gun handle while slowly rocking cartridge side to side until all visible air is displaced. Dispense an amount of CM 2000 into a waste pail until the color is uniform with no streaks, and then proceed to fill cracks.

## Packaging

300X300 ml cartridges, 12 per case  
2 gallon (7.57 liter) Units  
(consisting of 1 gal. of A & B)  
10 gallon (37.85liter) Units  
(consisting of 5 gal. of A & B)  
110 gallon (416.35liter) units  
(consisting of 55 gal. of A & B)

## Limitations/Precautions

Do not use CM 2000 on exterior cracks or repairs where, deck or slab movements are expected to exceed 6%. Do not use or install CM 2000 in wet or moist cracks, or anywhere the immediate work or repair area is not dry. Do not thin the CM 2000 with any solvents or thinners. Limit the installation of CM 2000 to level or near level grades.

Note – high temperatures will accelerate setting time, and cool temperatures will slow down setting time.

Prolonged or repeated skin or eye contact may cause irritation. If contact occurs, wash immediately and seek medical help. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Refer to Material Safety Data Sheets (MSDS) for additional information.

Contact with skin may cause severe chemical burns. Wash immediately with soap and water. Avoid eye contact. If eye contact occurs, flush immediately with water. Product is a strong sensitizer. Avoid breathing vapors. Use safety glasses and wear protective rubber gloves. In case of ingestion, call a physician. Refer to Material Safety Data Sheets (MSDS) for additional information.

## Clean-Up

Clean up all tools and equipment with Xylene or Acetone before CM 2000 has set.

## Warranty

Conspec warrants, for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Conspec, the product is free of manufacturing defects and conforms to Conspec's published specifications in force on the date of acceptance by Conspec of the order. Conspec shall only be liable under this warranty if the material has been applied, used, and stored in accordance with Conspec's instructions in this technical data sheet. The purchaser must examine the product when received and promptly notify Conspec in writing of any non-conformity before the product is used, or no later than 30 days after such non-conformity is first discovered. If Conspec, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only an Conspec officer is authorized to modify this warranty. The sales information on the Conspec website and received by the customer during the sales process does not supersede this warranty and the specifications of the product in force on the date of sale. **THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.**

### Limitation of Liability

Conspec shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, this Agreement, even if Conspec could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this agreement, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

## Storage

Store CM 2000 in original unopened factory containers in a dry environment at temperatures between 55 - 90°F. (12.8 -32.2°C). Shelf life is one year in unopened factory sealed bulk containers, and six months in cartridges.

## Technical Services

Complete technical and specification services are available from the manufacturer and their authorized representatives and distributors.

## Filing System

Additional literature and the Material Safety Data Sheet can be obtained from Conspec upon request.