

# CCS Technologies

## Concrete Crack Solution 10.5

CCS 10.5 is a low viscosity penetrating two component modified urethane polymer when combined with aggregate forms an extremely tough durable polymer repair material.

**PRODUCT DESCRIPTION:**

Concrete Crack Solution 10.5 is a two-component modified low viscosity urethane polymer designed to repair spalls and cracks in concrete substrates. It is extremely versatile in that it penetrates deep into the existing substrate providing a tenacious bond and when filled with aggregate (40 to 60 mesh silica sand or sugar sand) will form a tough durable repair in just minutes.

**APPLICATIONS:**

- Primarily used in the repair of concrete cracks and spalls that are causing problems in wear areas on concrete substrates.
- Expansion Joint repairs
- Crack Repairs
- Spall repairs
- Correcting Damaged joint seams whether it is spalled control joints or expansion joint headers.
- Strengthens spalled deteriorated concrete in minutes

**Low viscosity and provides deep penetration in one product thus eliminating the need for a primer**

**AREAS OF APPLICATION**

- Warehouse, floors, Driveways, Parking Structures, Condominium and Apartment Balconies, Chemical Plants Containment areas, Hairline Cracks or Larger, Restoring Distressed Concrete, Mounting Bolts and or Railings into a

concrete substrate

**PHYSICAL/CHEMICAL CHARACTERISTICS**

- Compressive Strength.** with sand 4900 +/- psi  
without sand 3400 + psi  
(ASTM D-695-77) Will vary depending on the aggregate
- Tensile Elongation** Approximately 6%
- Tensile Strength** 4478 psi
- Hardness** 72D  
(ASTM D-2240/Shore D Durometer)  
Will vary depending on the aggregate used
- Bond Strength** >400 psi minimum (100% concrete failure)
- Flammability** nnnn Self extinguishing.  
(ASTM D-635) n Extent of burning 0.25 inches max.
- Water Absorption** nnnn 0.1%  
(ASTM C-413)
- Cure Rate:** (at 77°F/25°C) Complete in 10 minutes

**PACKAGING:** Twin 21 fluid oz cartridge or 1 gallon units.

**COLORS:** Available in Gray, Custom colors upon request. Colors can be achieved with colored or pigment aggregates

**COVERAGE:** Approximate coverage per linear feet using a clean dried 40 to 60-mesh silica sand

<u>Depth</u>	<u>Width</u>					
	<u>1/4</u>	<u>3/8</u>	<u>1/2</u>	<u>5/8</u>	<u>3/4</u>	<u>1</u>
<b>1/8</b>	195	130	97	78	65	49
<b>1/4</b>	97	65	49	39	32	24
<b>3/8</b>	65	43	32	26	21	16
<b>1/2</b>	49	32	24	19	16	12

**Please note:** The estimated coverage rates are theoretical and will vary depending on the actual crack or spall being repaired. We suggest doing a test area on large projects to assist in determining the amount of material required.

## **PREPARATION:**

All surfaces shall be free of dirt, dusts, oils and any contaminated loose particulate, and any old deteriorated patching compounds. All surface areas shall be dry and clean prior to any application. Cracks may be ground out using a V shaped diamond blade or standard diamond blade cup wheel. Wire brush cup may also be used in areas that do not have any moderate or severe loose laitance.

## **APPLICATION:**

Suggested application temperatures are between 0 degrees F. and 100 degrees F. (18 to 38 degrees C) Material is to be stored at 60 to 80 degrees F. Depending on the aggregated being used they must be kept dry and at ambient temperatures. CCS 10.5 will cure in approximately 10 minutes @ 77 degrees F. **PLEASE NOTE:** Cure time is affected by temperature. Temperatures below 77 degrees F will slow the cure slightly. Contact your local representative for any specific application temperature below 32 degrees F.

## **MIXING:** Cartridges

CCS 10.5 is a two-component material, which is packaged in 2 single cartridges. The cartridges are manufactured to fit side by side and held together with a lock nut. A restrictor is used to control the flow of the two materials into the static mixer where the two resins will combine. Always keep the nose or tip of the cartridge level or pointing down as to keep any of the blended material from back filling into the two cartridge tube and causing a reaction inside the tube thus causing the material to clog. With the use of these cartridges it provides the user to be able to mix the two components equally eliminating any problems from the material being not mixed in equal amounts. **PLEASE REFER TO APPLICATION INSTRUCTIONS FOR SPECIFIC APPLICATION INSTRUCTIONS.**

## **HARDENING AND CURE:**

The CCS 10.5 will harden in approximately 10 minutes at 77 degrees F. Colder temperatures will increase cure times.

## **PRECAUTIONS:**

Read container labels and Material Safety Data Sheet before using all products.

Contact with liquids Part A and B can cause irritation. Wear protective clothing. Cover hands with protective cream and/or gloves. Wear chemical splash goggles. Use only with adequate ventilation.

## **CLEAN UP:**

Clean up tools immediately after use with MEK, Acetone, Xylene or Toluene. Cured material on tools may be soaked to remove the cured material. Use soap and water or an Industrial paint hand cleaner to remove from skin.

## **COMPLEMENTARY DATA:**

Use **Concrete Crack Solution 10.5** Installation Guide for complete installation instructions.

Our full service lab and technical staff are available to assist you. For complete information on our systems contact your local Representative or CCS-Technologies at (478)-994-5857.

## **HANDLING PRECAUTIONS**

CCS 10.5 is intended for industrial and commercial use only. Prolonged skin contact may cause irritation. Wear protective clothing and chemical splash goggles to avoid eye contact. Wear a respirator rated for organic compounds when applying this product in poorly ventilated areas. Make sure all areas are properly ventilated. Flammable!! Remove all sources of ignition prior to using. Contains isocyanate. Please refer to the MSDS for specific safety concerns. Ingestion: Do not induce vomiting Drink water and seek medical attention immediately. Inhalation: Move to fresh air. Eyes: Flush with water for 15 minutes and seek medical attention. Skin: Wash with soap and water.

**STORAGE:** Store materials at room temperature between 50 and 80 Degrees F.

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