

CONCRETE RESURFACER

Resurface Worn, Old, Spalled Concrete



PRODUCT DATASHEET

DESCRIPTION: Rapid Set® CONCRETE RESURFACER (CR) is an advanced hydraulic cement-based polymer-modified mortar that can be used both indoors and outdoors to resurface worn, old or spalled concrete, giving a new concrete look. CR has been specially formulated to match the color of typical portland cement concrete. Cutting-edge self-curing technology (SCT) means wet curing is not required in most applications. CR has a working time of up to 30 minutes and can receive foot traffic in as little as 2 to 3 hours. The drive-on time can be achieved in 4 to 8 hours.

USES: Use CR when a new wear surface is desired to repair old, damaged or discolored concrete.

ENVIRONMENTAL ADVANTAGES: Use CR to reduce your carbon footprint and lower your environmental impact. Production of Rapid Set cement emits far less CO₂ than portland cement. Contact your CTS representative for LEED values and environmental information.

APPLICATION: Typical application thicknesses range from 1/16" to 1/4" (0.16 to 0.64 cm). In smaller areas, CR may be applied up to 1/2" (1.2 cm) thick.

SURFACE PREPARATION: Surface must be clean, sound, and free of oil, curing compound, dust, mastic and other bond breakers. Surface must be prepared to a minimum profile of ICRI CSP 2. Mechanical methods of surface preparation such as shotblasting are preferred. Acid etching is not recommended. Surface must be dry and have a minimum temperature of 50°F (10°C).

PRIMING: Priming is not required. For porous substrates, use Rapid Set® Acrylic Primer to minimize the formation of pinholes on the surface. Follow all product application instructions.

MIXING: The use of a power-driven mechanical mixer, such as a mortar mixer or a drill-mounted mixer, is recommended. Organize work so that personnel and equipment are in place before mixing. Use clean potable water. **CR may be mixed using 3.5 to 4.5 quarts (3.3 L to 4.3 L) of water per 50-lb (22.7-kg) bag. Use less water to achieve higher strengths. Do not exceed 4.5 quarts (4.3 L) of water per bag.** Place the desired quantity of mix water into the mixing container. While the mixer is running, add material. Mix for the minimum amount of time required to achieve a lump-free, uniform consistency (usually 2 to 3 minutes). Do not retemper. Avoid mixers that entrap large amounts of air. Mixed CR should be used within 30 minutes at 70°F (21°C).

PLACEMENT: CR may be placed using traditional methods. Surface and ambient temperatures must be between 50°F to 90°F (10°C to 32°C). Do not install on frozen surfaces. Place quickly to allow for maximum finishing time. Once applied, typical finishing time is 5 to 10 minutes at 70°F (21°C). Thinner applications will set faster. Do not wait for bleed water; apply final finish as soon as possible. CR may be troweled, floated or broom finished with a concrete broom.

COLD WEATHER: Environmental and material temperatures below 70°F (21°C) may delay setting time and reduce the rate of strength gain. Lower temperatures will have a more pronounced effect. Thinner sections will be more significantly affected. To compensate for cold temperatures, keep material warm, use heated mix water, and follow ACI 306 Procedures for Cold Weather Concreting.

OVERVIEW

Highlights:

Rapid strength gain

Polymer modified

Self-curing technology (SCT)

Concrete gray color

Foot traffic in 2 to 3 hours, drive-on in 4 to 8 hours

30 minute working time

Interior/exterior

Tested in accordance with:

ASTM C109

MasterFormat® 2020

03 01 30 Maintenance of Cast-In-Place Concrete

03 01 40 Maintenance of Precast Concrete

03 01 50 Maintenance of Cast Decks and Underlayments

03 01 70 Maintenance of Mass Concrete

03 53 19 Concrete Overlayment

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WARM WEATHER: Environmental and material temperatures above 70°F (21°C) may shorten setting time and increase the rate of strength gain. Higher temperatures will have a more pronounced effect. To compensate for warm temperatures, keep material cool, use chilled mix water and follow ACI 305 Procedures for Hot Weather Concreting. The use of Rapid Set® SET Control set retarding admixture from the Rapid Set® Concrete Pharmacy® will help offset the effects of high temperatures.

CURING: Rapid Set® CONCRETE RESURFACER (CR) does not require water curing or curing compound under moderate conditions at 70°F (21°C). In dry, windy or hot conditions, mist with water to maintain a continuously wet surface until the product has achieved sufficient strength. CR cures to a gray color. Walk on time is approximately 2 to 3 hours.

YIELD & PACKAGING: One 50-lb (22.7 kg) bag of CR will yield approximately 0.5 ft³ (0.014 m³). The coverage is approximately 96 ft² (8.9 m²) at 1/16" (0.16 cm) depth. Coverage may vary due to jobsite conditions.

SHELF LIFE: CR has a shelf life of 12 months when stored properly in a dry location, protected from moisture, out of direct sunlight, and in an undamaged package.

USER RESPONSIBILITY: Before using CTS products, read current technical data sheets, bulletins, product labels and safety data sheets at www.CTScement.com. It is the user's responsibility to review instructions and warnings for any CTS products prior to use.

WARNING: DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN AND EYES. Use material in well-ventilated areas only. Exposure to cement dust may irritate eyes, nose, throat, and the upper respiratory system/lungs. Silica exposure by inhalation may result in the development of lung injuries and pulmonary diseases, including silicosis and lung cancer. Seek medical treatment if you experience difficulty breathing while using this product. The use of a NIOSH/MSHA-approved respirator (P-, N- or R-95) is recommended to minimize inhalation of cement dust. Eat and drink only in dust-free areas to avoid ingesting cement dust. Skin contact with dry material or wet mixtures may result in bodily injury ranging from moderate irritation and thickening/cracking of skin to severe skin damage from chemical burns. If irritation or burning occurs, seek medical treatment. Protect eyes with goggles or safety glasses with side shields. Cover skin with protective clothing. Use chemical resistant gloves and waterproof boots. In case of skin contact with cement dust, immediately wash off dust with soap and water to avoid skin damage. In case of skin contact with wet cement, wash exposed skin areas with cold running water as soon as possible. In case of eye contact with cement dust, flush immediately and repeatedly with clean water, and consult a physician. If wet cement splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment.

Please refer to the SDS and www.CTScement.com for additional safety information regarding this material.

LIMITED WARRANTY: CTS CEMENT MANUFACTURING CORP. (CTS) warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase. The above remedies shall be the limit of CTS' responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. CTS shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.

⚠ WARNING

CANCER and REPRODUCTIVE HARM - www.P65Warnings.ca.gov

TYPICAL PHYSICAL DATA

Compressive Strength, ASTM C109 Mod.**

24 hours 2500 psi (17.2 MPa)

28 days 4500 psi (31.0 MPa)

**Data obtained at 4.5 quarts of water.
All data produced at 70°F (21°C).



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