



CTS Cement Manufacturing Corporation
11065 Knott Avenue, Suite A, Cypress, CA 90630
Phone 800-929-3030, Fax 714-379-8270
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Rapid Set NewCrete Guide Specification (Draft)

Note to Specifiers

This specification is intended to assist the Customer, Architect or Engineer to meet the requirements of the project application. Consult a CTS Cement Representative for additional assistance for project specifications.

Section 03 01 00 – Maintenance of Concrete Section 03 53 00 – Concrete Topping

Part 1 – General

1.1 Summary

- A. Provide one component polymer modified cement based mortar for resurfacing of existing concrete substrates.
- B. Related Sections: Other specification section which relate directly to the work of this section including the following:
 - a. Section 030100: Concrete Maintenance
 - b. Section 033000: Cast-In Place Concrete

1.2 Submittals

- A. Product Data: Submit manufacturer's product data and installation for each material and product used. Include manufacturer's Materials Safety Data Sheet.

1.3 References

- A. ASTM C109M: Test Method for Compressive Strength of Hydraulic Cement Mortars
- B. ASTM C266M: Standard Test Method for Time of Setting of Hydraulic Cement Paste by Gillmore Needle.

1.4 Delivery, Storage, and Handling

- A. Delivery: All materials must be sealed and unopened packages with labels clearly marked with bar codes, lot number, batch number, and manufacturer.
- B. Storage: Store materials in dry area and away from sunlight, rain, snow, and other sources of moisture.
- C. Handling: Handle materials according to manufacturer's directions.

Professional Cement Products



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Part 2 – Product

2.1 Manufacturer

- A. CTS Cement Manufacturing Corp.
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2.2 Product Performance

- A. Rapid Set NewCrete
 - a. Set Time per ASTM C266M at 70 degrees Celsius
 - Initial Set – 110 Minutes
 - Final Set – 140 Minutes
 - b. Compressive Strength per ASTM C109M
 - 4 Hours: 1000 psi
 - 24 Hours: 2500 psi
 - 7 Days: 4000 psi

Part 3 – Execution

3.1 Surface Preparation

- A. Must be clean, sound, and free of oil, curing compound, dust, mastic and other bond-breakers.
- B. The surface shall be prepared to a minimum profile of ICRI CSP 2.
- C. Mechanical methods of surface preparation such as shot-blasting are preferred.
- D. Acid etching the substrate is not recommended.
- E. Surface must be dry and have a minimum temperature of 50° F.

3.2 Mixing

- A. Organize personnel and equipment before mixing.
- B. Use 2.5 – 3.0 quarts of potable water to 25-lb bag
- C. Mixed material should have a temperature of 70 degrees Fahrenheit.
- D. Warmer materials will set faster than expected and cooler material will have slower strength gain. Control temperature by protecting material bags from extreme temperatures and adjust the mix temperature by using hot or cold water.
- E. Add potable water first then add material while mixing mechanically with a drill and mixing paddle.
- F. Do not add any other admixtures with the exception of Rapid Set Concrete Pharmacy at manufacturer's dosage recommendations.
- G. Mix until smooth, uniform and lump-free (2-3 Minutes)
- H. Do not re-temper.
- I. Clean mixing bucket and tools between batches.

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3.3 Placement

- A. Place using traditional methods.
- B. Organize work so that all personnel and equipment are ready before placement.
- C. Place quickly to allow for maximum finishing time.
- D. Do not wait for bleed water; apply final finish as soon as possible.
- E. CR may be troweled, floated, or broom finished.
- F. Do not install on frozen surfaces.

3.4 Curing

- A. No special requirements needed. Material does not require water curing or curing compounds.
- B. Protect from rain for at least 6 hours.

3.5 Clean Up

- A. Clean all tools after use.
- B. Clean excess material and dispose of, according to local and federal institutions