



Shortform Product Specification for:
Rapid Set® Cement

SECTION 03 01 30 MAINTENANCE OF CAST-IN-PLACE CONCRETE
SECTION 03 01 40 MAINTENANCE OF PRECAST CONCRETE
SECTION 03 01 50 MAINTENANCE OF CAST DECKS AND UNDERLAYMENT
SECTION 03 01 70 MAINTENANCE OF MASS CONCRETE

(The above were formerly Section 03930)

[Note to specifier: Delete unnecessary Sections.]

Use Rapid Set® Cement: a rapid-setting, low shrinkage, extendable, cement that can be used from 1/2 inch to 6 inches thick when mixed with sand and from 2 inches to 24 inches thick when mixed with sand and stone. Manufactured by CTS Cement Manufacturing Corp., 11065 Knott Avenue, Suite A, Cypress, CA, 90630. Phone: 800-929-3030. Website: www.rapidset.com

1. Compressive strength of extended material per ASTM C109 (Mod.):
 - 1 hour* 2000 psi
 - 3 hour 4400 psi
 - 1 day 5500 psi
 - 28 day 6000 psi* after final set
2. Flexural strength of extended material per ASTM C78 (Mod.):
 - 5 hour 500 psi
 - 1 day 650 psi
 - 28 day 750 psi
3. Bond strength of extended material per ASTM C882 (Mod.):
 - 1 day 1200 psi
 - 20 day 2500 psi
4. Freeze/thaw of extended material per ASTM C666:
 - 1000 cycles 1.10% loss
 - Dynamic modulus 88%
5. Scaling resistance per ASTM C672:

Number of cycles	Relative Modulus	Remarks
72	97.9	Slight scaling
180	89.1	Loss of surface fines
252	84.1	Increased loss
300	82.4	Moderate scaling
6. Modulus of Elasticity of extended material per ASTM C469:
 - 28 day 4,000,000
7. Shall meet ASTM C150, ASTM C597, and ASTM C1157
8. Shall be non-metallic with no added chlorides.

9. Shall have small, pre-measured packets available to add to the repair material per manufacturer's recommendations to slow down the set time, increase fluidity and strength, speed up the set time, increase bond strength, reduce plastic and crazing cracks, lighten the color of the mix, or darken the color of the mix.

Sand and coarse aggregate shall meet ASTM C33 and water shall be potable. Prepare surface, mix, place, and cure per manufacturer's recommendations.