



Shortform Product Specification for:  
**Rapid Set® D.O.T. 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)

SECTION 03 62 13 NON-METALLIC NON-SHRINK GROUTING

(The above was formerly Section 03600)

[Note to specifier: Delete unnecessary Sections.]

Use Rapid Set® D.O.T. 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](http://www.rapidset.com)

1. Set time per ASTM C191 (Mod.) at 70°F:  
Initial set 17 minutes. Final set 20 minutes.
2. Compressive strength per ASTM C109 (Mod.):  
1 hour\* 3140 psi  
3 hour 3725 psi  
1 day 4650 psi  
28 day 5500 psi  
\* after final set
3. Flexural strength per ASTM C78 (Mod.):  
4 hour 500 psi  
1 day 650 psi  
28 day 1200 psi
4. Bond strength of per ASTM C882 (Mod.):  
1 day 2000 psi  
20 day 2200 psi
5. Freeze/thaw of per ASTM C666:  
1000 cycles 1.07% loss  
Dynamic modulus 91%  
In 10% sodium-chloride solution  
10 cycles 0.0% loss  
15 cycles 0.0% loss  
25 cycles 0.3% loss
6. Shall meet CRD C621 for non-shrink grouting.
7. Shall be non-metallic with no added chlorides.

8. 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 3/8 to 3/4 inch coarse aggregate shall meet ASTM C33 and water shall be potable. Prepare surface, mix, place, and cure per manufacturer's recommendations.