



Rapid Set® DOT Repair Mortar — DATASHEET

Industrial Grade Concrete Repair Mortar

Rapid Set® DOT Repair Mortar is ideal for the repair of pavement, bridge decks, industrial floors, parking garage decks, freezer floors and vertical & overhead repairs. DOT Repair Mortar is a rich blend of specialty sand, Rapid Set® Cement and additives for improved durability. When mixed with water the formulation produces a very Fast-Setting, high quality concrete repair material that is extremely durable in harsh environments.

Rapid Set® DOT Repair Mortar is an air-entrained specialty mortar that, when combined with water, produces a high performance concrete repair material that allows for early opening of pavement repairs to traffic. Rapid Set® DOT Repair Mortar is ideal for use where rapid strength, low shrinkage and high durability are desired. The development of high early strength provides conformance with CRD-C621 in only 3 hours. No Chlorides are added.

USES:

Full and partial depth repair of concrete pavements; parking structure and bridge deck repair; industrial floors; freezer floors; new slab construction; formed concrete work; and grouting.

PHYSICAL PROPERTIES:

Set Time:

Initial: 17-min

Final: 20-min

Compressive Strength (psi):

1-hr: 3,140

3-hr: 3,725

4-hr: 4,650

8-hr: 5,500

Flexural:

ASTM C78 (psi)

4-hr: 500

1-day: 650

28-day: 1,200

Bond Strength:

ASTM C 882

24 Hours 20 Days

2,000-psi 2,200-psi

Freeze/Thaw:

ASTM C 666

1,000 cycles (weight loss 1.07%)

Dynamic modulus: 91%

Conforms to ASTM C 928

YIELD:

Rapid Set® DOT Repair Mortar is packaged in 70-lb, bags yielding approximately 0.7 cu. ft. When extended with 45 to 50 lbs. Aggregate yields approximately 0.9 cu. ft.

SURFACE PREPARATION:

Concrete repair surfaces should be clean, sound, and free from any materials that may inhibit bond such as oil, asphalt, curing compounds, acids, dirt and loose debris. Roughen surface and remove all unsound concrete. Immediately prior to placement the repair surface shall be thoroughly saturated with no standing water.

MIX & APPLY:

The use of a power driven mechanical mixer is recommended. Organize work so that all personnel and equipment are in place before mixing. Use clean Potable water and mix whole bags only. Use less water to achieve higher strengths. For cold weather applications, use warm water. For concrete repairs over ¾" thick, up to 50lbs. of 3/8" stone may be added per bag. CAUTION: Do NOT add portland cement, lime, fly ash or any other admixtures unless approved by Rapid Set®.

Rapid Set® DOT Repair Mortar may be troweled, floated or broom finished. Install full depth sections. Do NOT install on frozen surfaces. In all applications use a method of consolidation that eliminates air voids. To extend working time use Rapid Set® SET CONTROL® retarding admixture.

Cure all Rapid Set® DOT Repair Mortar installations with water or an approved curing compound.

LIMITED WARRANTY:

CTS Cement Manufacturing Corporation warrants its materials to be of good quality, and, at its sole option, within one year of sale, will replace defective materials or refund the purchase price thereof and such replacement or refund shall be the limit of CTS's responsibility. Except for the foregoing, all warranties, express 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 material.