



TECHNICAL DATA SHEET

EXPRESS REPAIR Rapid Setting Mortar

03930

CONCRETE REHABILITATION
CONCRETE

TAMMS INDUSTRIES
NOVEMBER 2003 (Replaces 2/03)

1. **DESCRIPTION:** EXPRESS REPAIR is a cement based, ready to use, patching and repair mortar with rapid strength gain.

FEATURES AND BENEFITS

- *Fast setting*
- *Rapid strength gain*
- *Contains a migratory corrosion inhibitor*
- *Excellent durability*
- *Develops tenacious bond*
- *Complies with ASTM C928*

APPLICATIONS

Interior and exterior, horizontal concrete repairs on:

- *Highways*
- *Bridge decks*
- *Parking decks*
- *Loading docks*
- *Pavement joints*
- *Industrial floors*

2. **SURFACE PREPARATION:** Surface must be structurally sound, clean and free of loose or deteriorated concrete, dust, dirt, and all contaminants. Edges of area to be patched must be vertical, chipped or steep angle cut, to a minimum depth of 1/2". Clean and prime exposed steel and reinforcing with DURALPREP AC. If substrate is not absorptive, abrade as necessary to obtain proper profile for good adhesion. Flush area with clean water to remove all dust and dampen the concrete. Wipe off any excess water or puddles prior to placement of EXPRESS REPAIR. The surface should remain damp during placement of EXPRESS REPAIR.

3. **MIXING INSTRUCTIONS:** EXPRESS REPAIR requires 3 quarts of mix water per 50 lb bag. Use power drill with a jiffy type mixer to mix small quantities (typically 10 to 15 lbs). For larger applications use a paddle type mortar mixer or a standard concrete mixer. Do not add additional water. For repair areas over 1-1/2 inches deep, extend by adding up to 50 lbs of 3/8" clean, well graded SSD pea gravel per 50 lbs. of EXPRESS REPAIR. Proper mixing sequence involves first, adding the measured quantity of water to the mortar mixer; second, adding the pea gravel, if required; and third, adding the EXPRESS REPAIR and thoroughly mixing for 2 – 4 minutes. Do not mix longer than 4 minutes.

4. **APPLICATION TECHNIQUES:** EXPRESS REPAIR should be mixed, placed and finished within 15 minutes. Pour the mixed material into the prepared area to be patched. Work and tamp down the material firmly into the bottom and sides of the patch area to ensure good adhesion. Screed and trowel the material so as to level with the existing concrete. If required, lightly trowel to seal the edges, and finish the surface as desired. Thickness of EXPRESS REPAIR patch must be a minimum of 1/2 inch and a maximum of 1-1/2 inch per lift. When applying multiple lifts, allow the patch to reach final set, score the surface and then place the subsequent lift. Repair areas over 1-1/2 inches deep should either be extended or applied in multiple lifts. Do not over-trowel or featheredge. Follow ACI guidelines for proper curing. On windy or hot days or when under direct sunlight, wet curing is recommended.

MATERIAL PROPERTIES @ 75°F

ASTM C266			
Initial Set Time, min	Gilmore Needle		20-30
ASTM C109			
Compressive Strength, psi	2 hours		2,500
	3 hours		3,200
	24 hours		6,850
	7 days		9,200
	28 days		10,040
ASTM C39			
Compressive Strength, extended 50% with 3/8" pea gravel, psi	3 hours		3,100
	24 hours		6,400
ASTM C78			
Flexural Strength, psi	7 days		700
	28 days		915
ASTM C190			
Tensile Strength, psi	7 days		550
	28 days		660
ASTM C672			
Scaling Resistance	100 cycles	No scaling	
ASTM C666			
Freeze Thaw, Durability Factor	350 cycles		100%
ASTM C157			
Expansion/Contraction, pct.	3 days		-0.008%
	7 days		-0.013%
	28 days		-0.015%
ASTM C882 (mod)			
Bond Strength, psi	28 days		2,700
Typical results obtained under laboratory conditions			

TAMMS INDUSTRIES
NOVEMBER 2003 (Replaces 2/03)

CONCRETE REHABILITATION
CONCRETE

03930

5. **COLD WEATHER APPLICATION:** Application at temperatures below 45°F extends the set time. Heating the patch area until warm, using warm water for mixing and tenting or insulating the patch area after application will increase rate of strength development. Do not use direct heat on the patch after its installation.

6. **COVERAGE:** One 50 lb. bag yields approximately 0.42 cubic feet. Extending with 50 lbs of 3/8 inch pea gravel per bag increase the yield to approximately 0.75 cubic feet.

7. **CLEAN-UP INSTRUCTIONS:** Clean application tools and mixer with water immediately after use. Hardened EXPRESS REPAIR will be difficult to remove.

8. **CAUTIONS:** Do not featheredge, overwork, re-temper or overtrowel the patching material. Minimum depth of patching is 1/2". Do not add any admixtures or bonding agents to EXPRESS REPAIR. The patch area should be frost free prior to application. Do not apply at temperatures below 35°F or above 90°F.

9. **ENVIRONMENTAL AND SAFETY PRECAUTIONS:** Product contains Portland cement which is alkaline on contact with water. Do not breathe dust. May cause delayed lung injury (Silicosis). IARC reports crystalline silica may cause cancer in humans. Irritating to eyes and skin. Avoid splashing into eyes or contact with skin. In case of eye contact, flood eyes repeatedly with potable water and call a physician. DO NOT RUB EYES. Wash skin thoroughly after handling and before smoking or eating. Use adequate ventilation.

10. **PACKAGING:** 50 lb poly-lined bags.
Storage: Covered storage away from all moisture.
Shelf Life: One year in protected storage.
Freight Class: Class 55

11. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES, INC.
3835 State Route 72, Kirkland, IL 60146
800-862-2667; FAX: 815-522-2323
www.tamms.com

WARRANTIES: Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products' specifications.. THE FOREGOING WARRANTIES, ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. LIMITATION ON LIABILITIES: Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury, Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**