



TECHNICAL DATA SHEET

SPEED CRETE® 2028

Rapid Setting Mortar

03930

CONCRETE REHABILITATION
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TAMMS INDUSTRIES
NOVEMBER 2003 (Replaces 3/02)

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- DESCRIPTION:** SPEED CRETE 2028 is a cement based, ready to use, patching and repair mortar which sets fast, and achieves rapid strength gain.

FEATURES AND BENEFITS

- Sets fast, with rapid strength gain
- Compressive strength of 2,600 psi within one hour
- Minimizes prolonged shutdowns
- Nonshrink
- Contains a migratory corrosion inhibitor
- Develops tenacious bond
- Excellent resistance to freeze thaw and deicing chemicals
- Patch can be coated or overlaid with Tamms epoxy products after only 24 hour cure.
- Meets or exceeds ASTM C928

APPLICATIONS

Patching of horizontal concrete surfaces such as:

- Highways
- Bridge decks
- Parking decks
- Loading decks
- Pavement joint repairs
- Industrial floors

- COMPOSITION AND MATERIALS:** SPEED CRETE 2028 is a proprietary formulation of blended cements, selected aggregates and specific chemicals.

- SURFACE PREPARATION:** Surface must be structurally sound, clean, dry, 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 reinforcing steel with DURALPREP A.C. 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 SPEED CRETE 2028. The surface should remain damp during placement of SPEED CRETE 2028.

- MIXING INSTRUCTIONS:** SPEED CRETE 2028 requires 4.5 to 5 pints of water per 50 lbs bag. Use power drill with a jiffy type mixer for optimum blending of small quantities (typically 10 to 15 lbs). For larger applications use a paddle type mortar mixer or a standard concrete mixer. **The material is stiff initially but relaxes after 4-5 minutes of mixing.** Do not add any additional water to loosen up the mix. For repair

Material Properties @ 75°F		
ASTM C266		
Initial Set Time, min	Gilmore Needle	15-25
Final Set Time, min	Gilmore Needle	30-35
ASTM C109		
Compressive Strength, psi	1 hour	2,600
	2 hours	4,400
	3 hours	5,000
	24 hours	7,000
	3 days	7,500
	7 days	8,600
	28 days	9,000
ASTM C39		
Compressive Strength, extended 50% with 3/8" pea gravel, psi	1 hour	3,800
	24 hours	6,500
ASTM C78		
Flexural Strength, psi	4 hours	500
	24 hours	750
	3 days	780
	7 days	900
	28 days	1,050
ASTM C882 (mod)		
Bond Strength, psi	28 days	2,400
ASTM C190		
Tensile Strength, psi	24 hours	420
	7 days	540
	28 days	650
ASTM C672		
Scaling Resistance	100 cycles	No scaling
ASTM C666		
Freeze-Thaw, Durability Factor	350 cycles	100%
CRD-C621		
Expansion/Contraction, pct	24 hours	-0.010%
	3 days	-0.011%
	7 days	-0.013%
ASTM C1202		
Chloride Permeability	27 coulombs	"negligible"
Typical results obtained under laboratory conditions.		

areas over 1-1/2" deep, extend by adding up to 40 lbs of 3/8" clean well graded SSD pea gravel per 50 lbs of SPEED CRETE 2028. Do not use limestone aggregate. Proper mixing sequence involves first, adding the measured quantity of water to the mortar mixer, second, adding the SPEED CRETE 2028 and mixing a minimum of 4 minutes to thoroughly wet it out, and third, adding pea gravel, if required.

- APPLICATION TECHNIQUES:** SPEED CRETE 2028 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

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trowel to seal the edges, and finish the surface as desired. Thickness of SPEED CRETE 2028 patch must be a minimum of 1/2" and a maximum of 1-1/2" 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" deep should either be extended or applied in multiple lifts. Do not over-trowel or feather-edge. Follow ACI guidelines for proper curing. On windy or hot days or when under direct sunlight, wet curing is recommended.

6. **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 assist in reaching higher strength development. **Do not use direct heat on the patch after its installation.**
7. **COVERAGE:** One 50 lb bag yields approximately 0.42 cubic feet. Extending with 40 lbs of 3/8" pea gravel the yield increases to approximately 0.70 cubic feet.
8. **CLEAN-UP INSTRUCTIONS:** To prevent buildup clean application tools and mixer with water immediately after use.
9. **CAUTIONS:** Do not feather-edge, overwork, re-temper or over-trowel the patching material. Minimum depth of patching is 1/2". Do not add any admixtures or bonding agents to SPEED CRETE 2028. The patch area should be frost free prior to application.
10. **ENVIRONMENTAL AND SAFETY PRE-CAUTIONS:** Industrial Use only. 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. **KEEP AWAY FROM CHILDREN AND ANIMALS.**

11. **PACKAGING:** 50 lb. (22.7 kg) DOT approved poly-lined bags.

Storage: Keep dry in protected storage.

Shelf Life: One year in protected storage.

Freight Class: Class 55.

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

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