



TECHNICAL DATA SHEET

SPEED CRETE® RED LINE

Fast Setting Patching Material

03930

CONCRETE REHABILITATION
CONCRETE

TAMMS INDUSTRIES
NOVEMBER 2003 (Replaces 2/03)

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1. **DESCRIPTION:** SPEEDCRETE RED LINE is a fast setting, cement-based concrete and masonry patching compound.

FEATURES AND BENEFITS

- Initial set in 8-10 minutes
- Final set within 20 minutes
- May be "shaved" to desired shape
- High strength
- Excellent durability

APPLICATIONS

- Interior and exterior
- Vertical, overhead and horizontal repairs
- Used at no slump consistency
- Outstanding repair material for concrete pipe, curbs, sidewalks, formed and precast concrete

2. **COMPOSITION AND MATERIAL:** SPEEDCRETE RED LINE is a proprietary formulation of blended portland cements, finely processed selected aggregates, and specific chemical additives. SPEEDCRETE RED LINE, when combined with the correct amount of water, undergoes a chemical "hyper hydration" and produces a stable, low permeability, cementitious matrix.

3. **SURFACE PREPARATION:** Surface must be structurally sound, clean, free of loose or deteriorated concrete, dust, dirt, and other contaminants. Undercut edges of the area to be patched to a minimum thickness of 3/4 inch (1.9 cm). Clean and prime exposed steel and reinforcing with DURALPREP AC. When substrate is not absorptive, abrade as necessary to ensure proper bonding. Apply when temperatures are 35°F and rising. Prewet the prepared area with potable water immediately before application of the SPEEDCRETE RED LINE. Absorb excess water and puddles to prevent dilution of the patching material.

4. **MIXING INSTRUCTIONS:** SPEEDCRETE RED LINE will require approximately 5 to 5.5 quarts of potable water per 50 lb bag (22.68 kg) to achieve the proper mix consistency. Pour the measured amount of water into a clean mixing container, then add the measured amount of SPEEDCRETE RED LINE, and thoroughly mix for no more than 60 seconds to a stiff, no slump, putty-like consistency. Mix small quantities of SPEEDCRETE RED LINE in a clean pail with a hand trowel. Use a rotary mixer with rubber tip blades for mixing quantities up to 100 lbs. (45.4 kg). To fill patches 2 inches (5.1 cm) deep or greater, add clean, saturated surface dry 3/8 inch (.96 cm) size pea rock or chip stone to the SPEEDCRETE RED LINE. Do not use limestone aggregate. The mix ratio must not exceed 40 pounds (18 kg) of rock to each 50 pound (22.68 kg) bag or pail of SPEEDCRETE RED LINE. Mixing procedure: 1) start mixer, 2) load water, 3) load rock, and 4) load the SPEEDCRETE RED LINE. Mix for no more than 60 seconds.

5. **APPLICATION TECHNIQUES:** To ensure complete bond with the entire surface, force the SPEEDCRETE RED LINE firmly into the predampened area by hand or with a trowel. Slightly overfill the patch, and following initial set, shave the material to conform to the contour of the surrounding surface. Always shave SPEEDCRETE RED LINE toward the common bonding edge between the patching material and the existing surface. Cure material using standard curing practices. For additional information, contact Tamms Technical Service Center.

6. **COLD WEATHER INSTALLATION:** Application at temperatures below 40°F extends the set time. Heating the patch area until warm, using warm water for mixing and tenting or insulating the patch area after

MATERIAL PROPERTIES AT 75°F

| | | |
|--|---------------|---------|
| ASTM C109 | | |
| Compressive Strength, PSI | 24 Hour | 2,550 |
| | 7 Day | 5,290 |
| | 28 Day | 6,100 |
| ASTM C266 Set Time, Gilmore | | |
| | Initial | 8 Min |
| | Final | 20 Min |
| ASTM C190 Tensile Strength, PSI | | |
| | 7 Day Ave. | 309 |
| | 28 Day Ave. | 395 |
| ASTM C78 Flexural Strength, PSI | | |
| | 28 Day Ave. | 918 |
| ASTM C1042 | | |
| Shear Bond Strength, PSI | 24 Hour Ave. | 906 |
| | 7 Day Ave. | 1,084 |
| ASTM C666 | | |
| Freeze Thaw Durability Factor | 310 Cycles | 96.75% |
| ASTM C157 | | |
| Shrinkage 50% RH | 28 Day Ave. | -0.143% |
| | 28 Day Ave. | 0.077% |
| ASTM C672 Scaling Resistance | | |
| | 25 Cycles | 0% loss |
| ASTM D1411 Chlorides | | |
| | | <0.01% |
| ASTM C1202 | | |
| Chloride Permeability | 1300 coulombs | low |

Values presented are typical and not necessarily referenced to create specifications.

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application will assist in reaching higher strength development. **Do not use direct heat on the patch after its installation.**

7. **COVERAGE:** One 50 lb (22.68 kg) bag yields approximately 0.5 cu ft (0.014 cu.m). With the addition of 40 lbs. (18.14 kg) of 3/8 inch (0.95 cm) pea rock the yield is approximately 0.7 cu ft. (0.02 cu.m).
8. **CLEAN-UP INSTRUCTIONS:** Clean application tools and mixing equipment with water immediately following use.
9. **CAUTIONS:** Mix no more than 60 seconds. Use only potable water with SPEEDCRETE RED LINE. Mix to a stiff, putty-like, no slump consistency. Do not retemper or add sand to SPEEDCRETE RED LINE. Do not overwork or overtrowel patching material. Do not featheredge SPEEDCRETE RED LINE. Clean mixing equipment between batches.
10. **PACKAGING:** 50 lb poly-lined bags, and 50 lb pails.
Storage: Covered storage away from all moisture.
Shelf Life: Minimum 1 year in protected storage.
Freight Class: Class 55

11. **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. **KEEP AWAY FROM CHILDREN AND ANIMALS.**

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

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