Tempo 2500

Repair Mortar

Specification Data Sheet

PECORA CORPORATION
Architectural Weatherproofing Products
U.S.A. • since 1862

1. BASIC USES

- For interior and exterior repair of heavy duty surfaces
- Highway repairs and overlays
- Bridge decks and parking structures
- Airport runways
- Freezer rooms
- Heavy industrial and warehouse repairs
- Loading docks and wastewater treatment facilities

2. MANUFACTURER

Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
Phone: 215-723-6051
800-523-6688
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3. PRODUCT DESCRIPTION

Pecora® Tempo 2500 is a fast setting, fiber reinforced, high strength cement based repair mortar designed for applications where high early strength gain is needed to reduce down time.

Advantages: Pecora Tempo 2500 offers the following features –

- High early strength – over 2000 psi (14 MPa) in one hour allows repairs to be opened to traffic within 60 minutes
- Cement based, non-corrosive – not a chemical concrete
- Meets ASTM C928
- High performance cement technology and alkali resistant fibers help improve impact, flexural and tensile strengths
- Wide temperature range – from 20° F to 100° F (-6° C to 38° C)
- Economical – can be extended up to 60% by weight for repairs greater than 2" (51 mm) deep
- Contains no chlorides or magnesium phosphates
- Compatible with portland cement formulated concrete

Best Performance:

- Ideal ambient, surface and material temperatures are in the range of 40˚F to 80˚F (4˚C to 27˚C) for mixing and placing. For

PACKAGING

- 50 lbs. (22.7kg) moisture resistant bag

Requires 2.5 quarts (2.4L) of clean, potable water per 50 lbs.
Yield -one 50 lb. bag yields approx. 0.4ft.^{3} (0.01 m^3)
Yield - one 50 lb. bag extended with 30 lbs. (13.6kg) of 3/8" (10mm) pea gravel is approx. 0.7 ft.^{3} (0.02 m^3)

TYPICAL PHYSICAL PROPERTIES

Test Property	Value	Test Procedure
Working Time @70°F (21°C)	15 min.	
Set Time @70°F (21°C)		ASTM C191
Initial Set Time	Approx. 20 min.	
Final Set Time	Approx. 25 min.	
Compressive Strength @75°F (24°C)		ASTM C109
1 hour	2,650 psi (18.3 MPa)	
3 hours	3,500 psi (24.1 MPa)	
1 day	6,000 psi (41.3 MPa)	
7 days	8,000 psi (55.1 MPa)	
28 days	10,000 psi (69.0 MPa)	
Compressive Strength @40°F (4°C)		ASTM C109
3 hours	2,500 psi (17.2 MPa)	
1 day	4,000 psi (27.6 MPa)	
7 days	8,000 psi (55.1 MPa)	
28 days	10,000 psi (69.0 MPa)	
Compressive Strength @100°F (38°C)		ASTM C109
1 hour	3,500 psi (24.1 MPa)	
3 hours	5,000 psi (34.5 MPa)	
1 day	6,000 psi (41.3 MPa)	
7 days	8,000 psi (55.1 MPa)	
28 days	10,000 psi (69.0 MPa)	
Ave. Scaling Resistance (Freeze/Thaw)	25 cycles Rating: 0 Condition of surface: no visible scaling	ASTM C672
Bond Strength		ASTM C882
1 day	1,400 psi (9.6 MPa)	
7 days	2,000 psi (13.8 MPa)	
Length Change of Hardened Cement Mortar and Concrete Change	28 days	ASTM C928
Water Storage	0.08% to 0.15%	
Air Storage	-0.06% to -0.15%	
Differential	0.14% to 0.20%	
Rapid Freeze/Thaw @ 300 cycles	No spalling, Ave. weight loss of approx. 0.4%	ASTM C666B

temperatures outside of this range refer to ACI Standards 305 and 306 or call Pecora Technical Services.

- For applications requiring higher strengths and more aggregate extension refer to Pecora Tempo 3000 Plus
- Protect from premature drying
- Minimum application thickness is 1/2" (13mm)
- Do not re-temper, over water or add other cements or additives

4. TECHNICAL DATA

Applicable Standards:

- Meets ASTM C928 Standard specification for packages, dry, very rapid, hardening, cementitious materials for concrete repair.
- Test results obtained under controlled laboratory conditions. Reasonable variations can occur due to atmospheric and job site conditions. Water used: 2.5 qts. (2.4L) clean potable water per 50 lb. (22.7kg) bag.

5. INSTALLATION

Refer to:
• ACI 305 Standard on Hot Weather Concreting
• ACI 306 Standard on Cold Weather Concreting

Surface Preparation: Adjoining surfaces must be clean, dry and free of loose or damaged concrete, dust, dirt and other contaminants that will interfere with bond. Weak concrete surfaces must be cleaned down to solid sound concrete by mechanical means. The base concrete should be roughened to enhance mechanical bond and repair areas should be in a saturated surface dry (SSD) condition with all standing water removed. Using a stiff broom or brush apply a bond scrub coat of thinly mixed Pecora Tempo 2500 to the adjacent surfaces. Do not let this bond coat dry, before covering it with Pecora Tempo 2500. A minimum patch repair depth of 1/2" (13 mm) is required. This is best accomplished by saw cutting the patch area perimeter to the minimum 1/2" (13 mm) depth.

Mixing: Mix as close to the area being repaired as possible. Mix 2.5qts. (2.4L) clean potable water per 50 lbs. (22.7kg) Pecora Tempo 2500. First place water into mixing container and then while mixing, add the repair material. Tempo 2500 can be mixed in a mortar mixer or by using a paddle attached to a heavy duty 1/2" drill (650 r.p.m.). Mix for 2-3 mins. to a lump free consistency. Do not re-temper or over water. Place immediately after mixing.

Extended Mix: Tempo 2500 must be extended 60% by weight using clean 3/8" (10mm) dry pea gravel on repairs deeper than 2" (51mm). Mix the Tempo 2500 as outlined and then during the last minute of mixing (after 2 minutes) add the pea gravel. Blend for one more minute and place.

Application: Place immediately after mixing, working Tempo 2500 firmly into the sides and bottom eliminating air pockets and insuring bond. This is best done working from one side of the cavity to the other and then screeding toward the adjoining concrete. Ideal mixed product temperature at placement is 65-70° F (21° C), where the initial setting time is 20-30 minutes. Hot temperatures will shorten setting time, while cold temperatures will extend setting time.

Hot Weather Application (80° F to 100° F (27° C to 38° C)): Keep Pecora Tempo 2500 cool. Pre-soak and then remove standing water from the repair area, resulting in a saturated surface dry (SSD) surface. Mix Tempo 2500 using ice water to extend working time. The repair must be protected from rapid dry out with wet burlap or a water based curing compound.

Cold Weather Application (20° F to 40° F (-7° C to 4° C)): Do not use antifreeze or accelerators and keep Tempo 2500 warm. Heat the surrounding concrete until warm. Combine the warmed repair material with warm mixing water. After placing, use a construction insulating blanket for at least 2-3 hours and keep material from freezing.

Curing: Pecora Tempo 2500 should be moist cured for 1 hour after final set (approximately 20 minutes) or the application of a water based curing compound is acceptable. Prolonged wet curing minimizes the chances of cracking and improves physical properties.

Cleaning: Use water to clean all tools immediately after use.

Storage Life: 6 months from date of manufacture when stored in original unopened containers. Always keep in a cool dry place unexposed to sunlight.

Precautions: Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. The wearing of gloves and safety goggles is recommended. In case of eye contact, flood eyes with potable water and call physician. DO NOT RUB EYES. Do not take internally. Crystalline silica sand may cause serious lung problems. Avoid breathing dust and wear an appropriate NIOSH-approved respirator in dusty area. Consult Material Safety Data Sheet for further information.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN.

6. AVAILABILITY AND COST

Pecora products are available from stocking distributors nationwide. For the name and telephone number of your nearest representative, call the number below or visit our website at www.pecora.com.

7. LIMITED 1 YEAR WARRANTY

Pecora® warrants that this product and the materials used therein meet or exceed the applicable standards listed and enforced at the time of manufacture. Pecora will replace any product or part which proves defective due to quality of ingredients used or due to the manufacturing process itself. This Warranty shall apply only if the product is used in strict accordance with applicable specifications and instructions provided by Pecora for its use, and Pecora shall not be liable otherwise. Replacement of any defective product, or, at Pecora's option, refund of the purchase of any defective product shall be the buyer's sole remedy under this Warranty, and Pecora shall in no event be liable for any damages

in excess of the purchase price of the defective product. PECORA SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING LOSS OF PROFITS OF ANY KIND. Product demonstrations are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. This Warranty constitutes the sole warranty given by Pecora in connection with this product. No modification of this Warranty in favor of any buyer shall be valid unless given in writing and signed by an officer of Pecora. Pecora has authorized no person to make or give any other warranties or representation, oral or written on its behalf. IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES, INCLUDING WITHOUT EXCEPTION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

8. TECHNICAL SERVICES

Local Pecora representatives are available to assist you in selecting an appropriate product and to provide on-site application instructions, or to conduct job-site inspections. For further information and assistance, please call our Technical Service department at 215-723-6051 or 800-523-6688.

9. KEY INDUSTRY LINKS

- American Concrete Institute **www.concrete.org**
- International Concrete Repair Institute **www.icri.org**
- Sealant Waterproofing and Restoration Institute **www.swrionline.org**
- United States Green Building Council **www.usgbc.org**

PEC 262
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