Matrix

Trowel applied, Portland cement based repair mortar, formulated to match color and physical properties of parent material.

**PERFORMANCE CHARACTERISTICS**

- **Low shrinkage**
  - Maintains integrity of repair, resists cracking.

- **Thermal compatibility**
  - Prevents delamination due to temperature change.

- **Durable**
  - Resistant to weathering action, excellent freeze/thaw stability and abrasion resistance.

- **Very low permeability**
  - Resistant to deicing salts, chloride, and chemical attack, and environmental pollution.

- **Breathability**
  - Will not cause damage to structure by restricting moisture vapor flow.

- **Shaveable**
  - Recreate sharp edges and architectural details.

- **Single component**
  - Easy to batch in less than full pail quantities.

- **On-site color matching**
  - Great matches, no wait for factory samples.

**SURFACE PREPARATION**

- Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper bond.

- Saw cut edges with a diamond blade at a 90° angle to eliminate feather edging. Avoid polishing the edges, as this will inhibit bond.

- Avoid bruising or micro cracking during surface preparation. Refer to ICRI Surface Preparation Guide 03732.

- Repair zone must be a minimum of 1/2 inch deep, of simple geometry, with no complex edge conditions.

- Avoid long narrow repairs; these have a greater tendency to crack.

**APPLICATION**

- **At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.**

- **Follow instructions for Priming.**

- **Force the material against the edges of the repair, working toward the center.**

- **Material may be applied in multiple lifts of not less than 3/8 inch and no greater than 2 inches.**

- **Consolidate each lift and allow to stiffen to thumb-print hard before continuing.**

- **Scratch (cross-hatch) each lift to prepare surface for subsequent lift.**

- **Over-build final lift by 1/4 inch.**

- **Shave to final form with trowel edge up to 2 hours after application.**

- **Do not overwork the finish.**

**CURING**

- **Keep damp with a fine mist of water for 24 hours. Refer to ACI 308R-01 for detailed curing recommendations.**

- **If repair is inaccessible, tape polyethylene over area to retain moisture. Do not allow polyethylene to contact material.**

- **Protect repair from direct sunlight, wind, rain and frost during curing period.**

**CLEAN UP**

- **Clean tools and equipment with water immediately after use. Cured material must be removed mechanically.**

**WHERE TO USE**

Repair and reconstruct natural and cast stone, terracotta, and brick. Unique on-site color matching by trained, certified technicians.
Matrix

**COVERAGE/YIELD**
- 0.40 ft.³/46 lbs.

**PRODUCT HANDLING**

**Packaging**
- 5 gallon plastic pails – 46 lbs.

**Shelf Life**
- 18 months when properly stored.

**Storage**
- Transport and store in cool, clean, dry conditions in unopened containers.
- High temperature or high humidity will reduce shelf life.

**LIMITATIONS**
- Do not apply unless substrate and ambient temperature can be maintained at a minimum of 40°F for 24 hours. Refer to ACI Cold Weather Application Guidelines.
- Cold mixing water and low temperature will retard set. Hot water and high temperature will accelerate set.
- Protect application from precipitation and high wind for at least 24 hours.
- Do not add more water than specified.
- Do not re-temper, as this will affect color.
- Avoid overheating material during placement as this will affect color and cause surface checking.
- Do not allow polyethylene or burlene to touch surface while curing as this will cause whitening of the material.

**HEALTH AND SAFETY**
- Product is alkaline.
- Do not ingest.
- Avoid breathing dust.
- Avoid contact with skin and eyes.
- Refer to Material Safety Data Sheet (MSDS) for additional information.

**FIRST AID**
- In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with a high volume of water for at least 15 minutes and contact a medical professional. For respiratory problems, remove person to fresh air.

**DISPOSAL**
- Dispose of material in accordance with local, state or federal regulations.

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**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Dry, pigmented powder</th>
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<tbody>
<tr>
<td>Base</td>
<td>Portland cement</td>
</tr>
<tr>
<td>pH</td>
<td>Wet mix</td>
</tr>
<tr>
<td>Water/dry material ratio</td>
<td>Wet mix</td>
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<tr>
<td>Dry bulk density</td>
<td>ASTM C188, 92 lbs./ft.³</td>
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<tr>
<td>Setting time by vicat needle</td>
<td>ASTM C191, 240 minutes</td>
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<tr>
<td>Percent air – pressure method</td>
<td>ASTM C231, 4%</td>
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<tr>
<td>Water absorption</td>
<td>ASTM C140, 11%</td>
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<tr>
<td>Water vapor transmission</td>
<td>ASTM E96, 5.2 perms</td>
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<tr>
<td>Length change</td>
<td>ASTM C157, &lt;500 µstrains @ 28 days</td>
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<tr>
<td>Modulus of elasticity</td>
<td>ASTM C469, 2.6 x 10⁶</td>
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<tr>
<td>Slant shear bond strength – epoxy</td>
<td>ASTM C882, 1800 psi</td>
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<table>
<thead>
<tr>
<th>7 Days</th>
<th>14 Days</th>
<th>28 Days</th>
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<tbody>
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<td>Compressive strength – psi</td>
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<td>3400</td>
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<tr>
<td>Tensile strength – psi</td>
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<tr>
<td>400</td>
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**FOR PROFESSIONAL USE ONLY**

Conproco Corp. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. March 2008.

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