

Express Set

**Pour into place,
very rapid setting,
shrinkage compensated repair mortar.
3000 psi in three hours.
Complies with ASTM C928.**

WHERE TO USE
**Parking structures,
bridge decks, ramps, dams,
industrial floors and
other horizontal applications.**

PERFORMANCE CHARACTERISTICS

Shrinkage compensated

- Maintains integrity of repair, resists cracking.

Thermal compatibility

- Prevents delamination due to temperature change.

Corrosion protection

- Protects reinforcing steel in repair zone and suppresses ring anode effect.

Durable

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

Very low permeability

- Resistant to deicing salts, carbonation, chloride, and chemical attack.

Very rapid setting

- Open to vehicular traffic in 1 hour.

Abrasion resistant

- Hard, durable surface for long term wear.

Single component

- Just add water, easy to batch less than full bag quantities.

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.

- Apply *Conpro Start* where a consolidant is of benefit.
 - Saturate substrate with clean water, (saturated surface dry/SSD), with no standing water during *Priming or Application*.
 - Remove concrete from corroded steel and several inches beyond to expose non-corroded steel.
 - Provide a 3/4 inch clearance between the concrete and steel.
 - Damaged reinforcing steel should be inspected by a qualified engineer and appropriate action taken.
- ### Reinforcing Steel
- Remove all scaling rust from reinforcing steel.
 - Apply *ECB* anti-corrosion coating.

MIXING

- Mechanically mix using a low speed drill (400 - 600 rpm) and mixing paddle or mortar mixer.
- Pour 3 quarts of potable water into a clean mixing vessel and slowly add all of the powder.
- Mix continuously for 3 minutes to a uniform, lump-free consistency.
- Add up to 1/2 pint of additional water if needed.
- Mix only as much material as can be placed in 10 - 15 minutes.
- Do not over mix, as this will entrain excess air.
- Do not re-temper.

APPLICATION

- At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
- Force the material against the edges of the repair, working toward the center.
- After filling repair, screed off excess material.
- Use a magnesium float for a smoother finish.
- Mixing, placing and finishing should not exceed 30 minutes.
- Material can be extended with a maximum of 50 lbs. of 3/8 inch aggregate per 50 lbs. bag. Aggregate must be non-reactive, low absorption, graded and high density.

CURING

- A water based curing compound that complies with ASTM C309 can be used under extreme conditions.

CLEAN UP

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

Express Set

COVERAGE/YIELD

- 0.42 ft.³/50 lbs.
- 0.65 ft.³ when extended with 30 lbs. of 3/8 inch aggregate.
- 0.77 ft.³ when extended with 50 lbs. of 3/8 inch aggregate.

PRODUCT HANDLING

Packaging

- 50 lbs. multi-wall, poly lined bags.

Shelf Life

- 12 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 1 hour.
- Do not mix more material than can be placed in 5 - 10 minutes.
- Do not add more water than specified – this will lower strengths and cause shrinkage cracking.

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.

TECHNICAL DATA

| | | | | | | | |
|-----------------------------------------|-----------|------------------------------------------------------------------------------|---------------|----------------|--------------|---------------|----------------|
| Physical state and appearance | | Fine, gray powder | | | | | |
| Base | | Portland cement | | | | | |
| pH | Wet mix | >12 | | | | | |
| Water/cement ratio | | 0.28 – 0.36 | | | | | |
| Density | Wet mix | 130 lbs./ft. ³ | | | | | |
| Setting time by vicat needle | ASTM C191 | Initial 15 minutes – Final 35 minutes | | | | | |
| Percent air by volumetric | ASTM C173 | 6% | | | | | |
| Length change | ASTM C157 | < 800 µstrains @ 28 days – air cure < 250 µstrains @ 28 days – water cure | | | | | |
| Modulus of elasticity | ASTM C469 | 3.3 x 10 ⁶ | | | | | |
| | | | 1 Hour | 3 Hours | 1 Day | 7 Days | 28 Days |
| Slant shear bond strength – epoxy – psi | ASTM C882 | | | | 1300 | 1500 | |
| Compressive strength – psi | ASTM C109 | 2000 | 2800 | 4500 | 6350 | 7200 | |
| Tensile strength – psi | ASTM C307 | | | 260 | 380 | 420 | |

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 2011.

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