

# Forment<sup>®</sup>

**Pump/pour,  
shrinkage compensated,  
Portland cement repair mortar,  
with ECB-Tech corrosion protection.**

**WHERE TO USE  
Formed structural and  
protective repairs to vertical,  
overhead and horizontal concrete  
from 1 - 6 inches deep.**

## 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.

### Highly flowable

- Excellent consolidation around reinforcing steel.

### Economical

- Fast placement of large repairs, improves productivity.

### Two component

- Consistent batching and flowability.

## 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.
- Apply *Conpro Start* where a consolidant is of benefit.
- Repair zone must be an average of 1 inch deep, square or rectangular shape.
- 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.

## PRIMING

### Concrete

- Several hours prior to placing *Forment*, fill the formwork with clean water. Immediately prior to placement completely drain the water and seal the ports.

### 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 *Forment* admix into a clean mixing vessel and slowly add all of the powder.
- Mix continuously for 3 minutes to a uniform, lump-free consistency.
- Do not over mix, as this will entrain excess air.

## APPLICATION

- Formwork must be tight at all joints to prevent leaks and loss of water and material.
- Pre-treat forms with a release agent.
- Locate vent holes at bottom of forms to allow pre-soaking water to drain and at top to allow air to escape during placement. Refer to ACI 347-01, Guide to Formwork for Concrete.
- Fill forms with clean water several hours prior to placement.
- Drain forms immediately prior to placement.
- Fill forms with a continuous feed. Do not interrupt filling once started, as this will create voids. Refer to ACI 304.2R-96, Placing Concrete by Pumping Methods.
- Consolidate material by tapping forms lightly with a 3 lb. hammer.
- *Forment* will remain fluid for approximately 30 minutes at 70°F, 50% RH.
- Strip forms after 24 hours.
- Extend material to a maximum of 30 lbs. of 3/8 inch aggregate per 50 lbs. of *Forment*. Aggregate must be non-reactive, low absorption, graded and high density.

## CURING

- Immediately after stripping forms apply *Conpro C309 Cure & Seal* or moist cure with wet burlap and polyethylene for 48 hours. Refer to ACI 308R.01 for detailed curing recommendations.
- 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.

# Forment®

## COVERAGE/YIELD

- 0.41 ft.<sup>3</sup>/50 lbs.
- 0.65 ft.<sup>3</sup> when extended with 30 lbs. of 3/8 inch aggregate.

## PRODUCT HANDLING

### Packaging

- 50 lbs. multi-wall, poly lined bags; and 1 gallon *Forment* admix.

### 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.
- Protect admix from freezing.

## 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.
- Do not add more liquid than specified.
- Do not add water.
- Begin curing procedures as soon as forms are stripped.
- Material should not sit in mixer, pump or lines for more than 5 minutes without recycling.
- Do not use *Conpro Primer* or *Conpro Weld* as a bonding primer with *Forment*.

## 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 and water admix		
Base		Portland cement and liquid		
pH	Wet mix	>12		
Aggregate type		Sharp quartz silica		
Liquid/cement ratio		0.45		
Density	Hardened	140 lbs./ft. <sup>3</sup>		
Resistance to deicing chemicals under freeze/thaw	ASTM C672	50 cycles – no effect		
Length change	ASTM C157	<500 µstrains @ 28 days		
Extended*		<300 µstrains @ 28 days		
Modulus of elasticity	ASTM C469	4.1 x 10 <sup>6</sup>		
Extended*		3.9 x 10 <sup>6</sup>		
		<b>1 Day</b>	<b>7 Days</b>	<b>28 Days</b>
Compressive strength – psi	ASTM C109	1250	5700	6150
Extended*				5975
Splitting tensile strength – cylinders – psi	ASTM C496			710
Extended*				675

\*Extend with 30 lbs. of 3/8 inch aggregate per 50 lbs. of material.

### 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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