

Gun Shot LPS

Low pressure, wet process spray applied, fiber reinforced, silica fume enhanced, repair mortar with ECB-Tech corrosion protection.

WHERE TO USE
High production vertical and overhead concrete repairs. Wet process minimizes dust and rebound. Spray or trowel.

PERFORMANCE CHARACTERISTICS

Low shrinkage

- 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.

High build

- Place up to 2 inch lifts without rebound.

Economical

- Improves productivity.

Consistent results

- Excellent consolidation around reinforcing steel.

High early strength

- Minimize out-of-service time.

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 1/4 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.

PRIMING

Concrete

- Apply *Conpro Primer*, or *ECB* as a bonding primer to all exposed surfaces. Refer to the individual product technical data bulletin for information.

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 2-1/4 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 pint of additional water if needed.
- Allow to "breathe" for 1 minute and remix for 1 minute. This will improve workability and open time.
- 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.
 - Follow instructions for *Priming*.
- ### Spray Application
- Material should be applied by an experienced nozzle man using a rotor/stator or peristaltic pump. Follow ACI 506R, for recommendations for wet process shotcrete.

- Material may be applied in multiple lifts of not less than 3/8 inch and no greater than 2 inches.
- Allow material to stiffen to thumb-print hard before continuing.
- Scratch (cross-hatch) each lift to prepare surface for subsequent lift.
- Strike off with straight edge to a uniform plane, close with a trowel or sponge float.

Trowel Application

- 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.
- Finish with a sponge float or trowel.
- Do not overwork the finish.

CURING

- Dampen the repair with a fine mist of water for 24 hours or moist cure with wet burlap and polyethylene. Alternatively, apply *Conpro C309 Cure & Seal*.
- 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.

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COVERAGE/YIELD

- 0.41 ft.³/50 lbs.

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 8 hours.
- Do not add more water than specified – this will lower strengths and cause shrinkage cracking.
- Avoid overworking material during placement and finishing – this will produce surface (map) 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 with glass fibers
Base		Portland cement with silica fume
pH		>12
Density	Hardened	135 lbs./ft. ³
Setting time by vicat needle	ASTM C191	Initial 30 minutes – Final 60 minutes
Percent air – pressure method	ASTM C231	3 - 5%
Resistance to deicing chemicals under freeze/thaw	ASTM C672	50 cycles – no effect
Slough	ACI 506 R90	None
Rebound	Vertical	None
		7 Days 14 Days 28 Days
Compressive strength – psi	ASTM C109	7275 7350 7400

Typical performance data representing material vertically applied and cured in field under varying temperatures. Test performed at 2-1/4 quarts of water per bag.

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. January 2005.

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