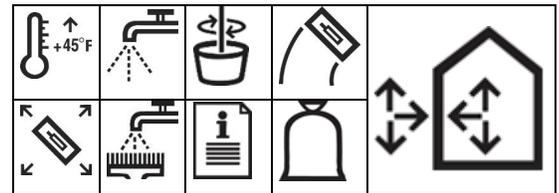


## PRODUCT BULLETIN

# Sto Full Depth Repair Mortar with CI

Product Number: 82311



## PRODUCT DESCRIPTION

Sto Full-Depth Repair Mortar with CI is a single component portland cement-based repair material for structurally repairing or overlaying deteriorated concrete. The product can be used for horizontal or vertical/overhead form & pump and form & pour applications from ½ to 4 inches (13 to 102mm).

FEATURES	BENEFITS
Integral Corrosion Inhibitor	Strengthens passive layer on reinforcing steel; protects from corrosion
Low Shrinkage	Stable bond line; resists perimeter cracking
Thermally Compatible with Concrete	Prevents delamination caused by temperature changes
One Component	Ready to use; pumpable; easily mixed with water on the jobsite; no chemical jugs to dispose
Early Recoat	Coatings may be applied 72 hours after application

**Packaging:** 50 lb. bag (22.7kg)

**Yield:** 0.40 ft<sup>3</sup> (0.01 m<sup>3</sup>) per 50 lb. bag (22.7kg)

**Shelf Life:** 12 months in original, unopened, properly stored packaging.

**Storage:** Store in a dry area, between 50°F (10°C) and 85°F (29°C). Protect from direct sunlight, extreme heat [90°F (32°C)].

## SURFACE PREPARATION

1. Saw cut the perimeter of the repair area to a minimum depth of ½ inch (13mm) at a 90° angle.
2. Remove loose, deteriorated concrete and all other bond-inhibiting materials from the area to be repaired.
3. Prepare concrete surface using proper equipment to achieve a Concrete Surface Profile (CSP) of 5 or greater according to ICRI Guideline No. 310.2R-2013. Verify bond to properly prepared concrete or concrete masonry as specified by design professional at a minimum of 28 days old.
4. Concrete substrate must be clean and saturated surface dry (SSD) with no visible standing water. Exposed reinforcing steel shall be clean and free of oxidation (rust).
5. Work a scrub coat of the mixed material into the substrate to ensure intimate contact and establish bond. Complete repair while scrub coat is still wet.

**Priming:** Alternatively, prepared concrete and reinforcing steel may be primed using Sto Bonding and Anti-Corrosion Agent.

## MIXING

Use at a preconditioned temperature of 70 ± 5°F (21 ± 3°C). Use 5 to 6 pints (2.37 to 2.84 L) of water per 50 lb. (22.7kg) bag.

### Mixing 1 bag:

**Recommended Mixing Paddle:** Type P2, P5, or P6 according to ICRI Guideline No. 320.5R-2014

**Recommended Mixing Drill:** Type D5 or D6 according to ICRI Guideline No. 320.5R-2014

### Mixing multiple bags:

**Recommended Mortar Mixer:** Type A, B, or G according to ICRI Guideline No. 320.5R-2014 (IMPORTANT: Pre-dampen mixer)

Pour water (5 pints [2.37 L] per bag) into a clean mixing container. Mix while slowly adding the product to the water. If more water is needed, up to one-half pint (0.24 L) per bag may be added. Mix up to 3 minutes, to a uniform, lump-free consistency. Avoid over mixing which could entrap air. Once mixed, the working time is 20-40 minutes, depending upon material, ambient and surface conditions. Mix thoroughly to a uniform consistency.

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## APPLICATION

### Patching and Overlay

Dampen the area to be repaired so that the pores of the concrete are filled with water. Remove any ponding or glistening water on the surface (saturated surface dry/SSD). Work a scrub coat of the mixed material into the substrate to ensure intimate contact and establish bond. Apply Sto Full-Depth Repair Mortar with CI while the scrub coat is still wet. Consolidate and trowel to the desired finish.

### Form-and-Pour or Pump

Sto Full-Depth Repair Mortar with CI can be placed via form and pour or pump for horizontal, vertical or overhead applications from ½ to 4 inches (13 to 102mm). Formwork shall be rigid, watertight and have drainage ports for pre-soaking repair area. 24 hours prior to repair placement, fill formwork with potable water to create an SSD surface (NOTE: pre-soaking not required if using Sto Bonding and Anti-Corrosion Agent). Drain water from formwork. Pour or pump Sto Full-Depth Repair Mortar with CI into the formed repair area. Consolidate repair material using an internal concrete vibrator or external form vibrator.

### Curing/Drying

Direct sun or wind may cause unwanted rapid surface drying. Curing may be accomplished by continuous water fogging for 48 hours or cover with damp burlap or burlene curing blankets. Do not use solvent-based curing compounds or allow water to puddle. If a coating or sealer will be applied, use water fogging or blanket curing methods and prepare finished surface per coating manufacturer's recommendations.

### Clean Up

Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

## HEALTH & SAFETY

**WARNING:** Causes eye and skin irritation.

**Precautionary Statement:** Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**FIRST AID MEASURES:** Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

**Skin Contact:** Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention. Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Store locked up.

**Spills:** Collect in an appropriate container. Uncured material may be removed with water.

**Disposal:** Dispose of in accordance with local, state or federal regulations.

**Warning:** KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) on [www.stocorp.com](http://www.stocorp.com) for further health and safety information.

## LIMITATIONS

- Apply only when the surface and ambient temperatures are 45°F (7°C) and rising. See Cold Weather Application guidelines, as per ACI for applications in temperatures less than 50°F (10°C). Applications made during temperatures greater than 85°F (29°C) should follow Hot Weather Application guidelines, as per ACI.
- Cold or damp conditions retard hydration and require additional time before coating or opening to traffic.
- The minimum required thickness is ½ inch (13mm). Maximum thickness is 4 inches (102mm)
- Do not feather edge.
- Do not add more water than specified
- Do not add additional powder from other units.
- Do not overmix.

## LIMITED WARRANTY

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp.

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**TECHNICAL DATA**

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT*
Application Thickness	-----	Minimum Maximum	½ inch (13mm) 4 inches (102mm)
Working Time (minutes)	-----	-----	20 – 40
Compressive Strength (psi)	ASTM C109	7 days 28 days	4,800 6,000
Flexural Strength (psi)	ASTM C293	7 days 28 days	700 750
Modulus of Elasticity (psi)	ASTM C469	28 days	3.9x10 <sup>6</sup>
Length Change (%)	ASTM C157	28 days	<0.030
Direct Tensile Bond (psi)	ASTM D4541	28 days	210
Typical values for material cured at 73 °F (23 °C) and 50 % RH Note: To convert psi to Mega Pascal (MPa) multiply by 0.0069.			

<p><b>Sto Corp.</b>                  3800 Camp Creek Parkway                  Building 1400, Suite 120                  Atlanta, GA 30331                  Tel: 404-346-3666                  Toll Free: 1-800-221-2397                  Fax: 404 346-3119  <a href="http://www.stocorp.com">www.stocorp.com</a></p>	<p>Revision Number: 005                  Date: 03/2025</p>	<p><b>ATTENTION</b>                  This product is intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. It should be installed in accordance with those specifications and Sto’s instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto’s control. Improper use of this product or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. <b>STO CORP. DISCLAIMS ALL WARRANTIES EXPRESSED OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO’S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.</b> For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, <a href="http://www.stocorp.com">www.stocorp.com</a></p>
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