

## **PRODUCT BULLETIN**

# **Sto Overhead Mortar Cl**

Product Number: 80702

#### **PRODUCT DESCRIPTION**

Sto Overhead Mortar with integral corrosion inhibitor is a single component, polymer-modified, cement-based mortar for structurally repairing deteriorated concrete and masonry. Use on vertical or overhead surfaces.

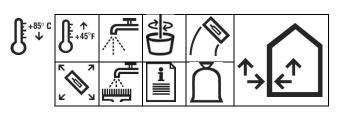
FEATURES	BENEFITS		
Polymer-Modified	Increases durability; excellent adhesion;		
	improves flexural strength		
Non-sag, Low	Perform vertical and overhead repairs		
Slump	without the need for formwork		
Low Shrinkage	Stable bond line; resists perimeter cracking		
Freeze/Thaw	Suitable for any climate		
Durability			
One Component	Factory-controlled polymer-to-cement ratio;		
	ready to use; easily mixed with water on the		
	jobsite, no chemical jugs to dispose		

Packaging: 43 lbs. bag (20kg)

Yield: 0.35 ft<sup>3</sup> (0.010 m<sup>3</sup>) per 43 lbs, bag (20 kg)

Shelf Life: 12 months in original, unopened container, if properly stored

**Storage:** Store in a dry area, between 50°F (10°C) and 85°F (29°C).



#### SURFACE PREPARATION

1. Saw cut the perimeter of the repair area to a minimum depth of 1/8" (3mm) 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

**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

Use Sto Overhead Mortar CI at a preconditioned temperature of 70  $\pm$  5°F (21  $\pm$  3°C). Use 6.0 to 6.5 pints (2.83 to 3.08 L) of water per 43 lbs (20 kg) bag.

Mixing must be achieved mechanically using a slow speed drill and mixing paddle. Pour 6.0 pints (2.83 L) of water 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) 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 15-30 minutes, depending upon material, ambient and surface conditions. Mix thoroughly to a uniform consistency.





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### APPLICATION

Apply only to sound, clean, properly prepared, and frost-free surfaces. 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).

IMPORTANT: Work a scrub coat of the mixed material into the substrate to ensure intimate contact and establish bond.

Complete the repair while the scrub coat is still wet and trowel to the desired finish. Sto Overhead Mortar CI can be applied to a thickness of 2 inches (50 mm) in one lift for overhead applications and 4 inches (100mm) in one lift for vertical applications. For application depths greater than the maximum allowable thickness, apply Sto Overhead Mortar CI in successive lifts.

For additional lifts, score the first lift to achieve the proper concrete surface profile (CSP) and allow it to set until hardened sufficiently to accept the next lift, about 30 minutes at 75°F (23°C). Trowel the final lift to the desired finish. Applications made during temperatures below 50°F (10°C) or above 85°F (29°C) should follow appropriate cold or hot weather application guidelines, respectively.

#### **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 solventbased curing compounds. If a coating or sealer will be applied, use water fogging or blanket curing methods and prepare the finished surface per 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 with suitable absorbent material such as cotton rags.

**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 for further health and safety information.

### LIMITATIONS

- Apply only when the surface and ambient temperatures are 45°F (7°C) and expected to remain above 45°F (7°C) for 24 hours. See Cold Weather Application guidelines, 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, per ACI.
- Application depths greater than the allowable maximum thickness must be completed in lifts.
- Do not feather-edge. The minimum required thickness is 1/8 inch (3 mm).
- 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 (Vertical) Maximum (Overhead)	1/8" or 3mm 4" or 100mm 2" or 50mm		
Working Time (minutes)			15 - 30		
Set Time (minutes)	ASTM C191	Initial Final	25-35 35-45		
Compressive Strength (psi)	ASTM C109	1 day 7 days 28 days	>3,500 >7,000 >8,000		
Flexural Strength (psi)	ASTM C348	1 day 7 days 28 days	>600 >900 >1,000		
Modulus of Elasticity in Compression (psi)	ASTM C469	28 days	3.1 x 10 <sup>6</sup>		
Splitting Tensile Strength (psi)	ASTM C496	1 day 7 days 28 days	>250 >350 >550		
Shrinkage (%)	ASTM C157 modified	28 days	<0.18		
Direct Tensile Bond (psi)	ASTM C1583	28 days	>400 (substrate failure)		
Slant Shear Bond (psi)	ASTM C882 modified	1 day 7 days 28 days	>800 >1,200 >1,400		
Freeze/Thaw Resistance (%)	ASTM C666	300 cycles	>98		
Salt Scaling Resistance	ASTM C672	50 cycles	Rating = 0 Scaled Material = $0.0 \text{ lbs/ft}^2$		
Note: To convert psi to Mega Pascal (MPa) multiply by 0.0069.					

Sto Corp.

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### ATTENTION

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. 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. 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, <u>www.stocorp.com</u>