

Sto Bonding and Anti-Corrosion Agent

80246 Sto Bonding and Anti-Corrosion Agent



Technical Data			
REPORT	TEST METHOD		TEST RESULT
Pot Life (minutes)			90
Open Time (hours)			24
Bond Strength (psi)	ASTM C-882	2 hours open	1,800
	Plastic to hardened concrete	8 hours open	2,100
		16 hours open	2,100
		24 hours open	2,100
Tensile Strength (psi)	ASTM C-190	28 days	800
Flexural Strength (psi)	ASTM C-78	28 days	2,000
Rapid Chloride Permeability (Coulombs)	AASHTO T-277 ASTM C-1202	28 days	<150
VOC (g/L)	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 50 g/L.		

Typical values for material cured at 73°F and 50% R.H.
Note: To convert to mega Pascal (MPa) multiply by 0.0069

Sto Bonding and Anti-Corrosion Agent is a unique combination of Portland cement, microsilia, epoxy, and acrylic resin. Use it for bonding new concrete or mortar to old and for protecting reinforcing steel against rust and corrosion. When used as a bonding agent, it provides up to a 24-hour open time.

Coverage

Bonding Agent: 70-80 ft² per gal, applied at 20 wet mils (6-7 m² per 3.8 L at 20 wet mils).

Anti-Corrosion Agent: 70-80 ft² per gal, applied at 0.5 mm wet (6-7 m² per 3.8 L, at 0.5 mm wet)

Packaging

Component A: One gallon jug (3.8 L)

Component B: 28 lbs bag (13 kg)

Shelf Life

12 months in original, unopened properly stored container.

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)] and freezing.

Features	Benefits
1 24-hour Open time	Provides work schedule flexibility; can be used with formed or shotcrete repairs
2 Epoxy-, acrylic-based	Ensures bond to concrete and steel
3 Microsilica-enhanced	Increases bond strength: screens out chloride ions, protecting steel against corrosion
4 Non-vapor Barrier	Allows concrete to breathe naturally; can be applied to on-grade concrete
5 Two Components	Simple to use; mixing instructions easily understood
6 Sprayable	Easy to apply; speeds application time
7 20 mils as a Bonding Agent	Increases coverage; saves money
8 Field Batched	No waste; mix only the amount needed
9 Water Clean Up	Tools can be reused; no hazardous solvents needed; environmentally friendly
10 Low VOC	Safe for workers and the environment
11 Non-flammable	Safe for workers

Sto Bonding and Anti-Corrosion Agent

Surface Preparation

Bonding Agent

Remove loose and deteriorated materials by shot- or sand-blasting, or mechanical means to obtain a fractured aggregate surface. Make sure surfaces are sound, clean, and free of all bond-inhibiting materials including oil, dust, dirt, laitance and standing water.

Anti-Corrosion Agent

Remove rust or active corrosion using sandblasting or mechanical wire brushing to produce a white metal finish. Make sure surfaces are clean, dry and free of all bond-inhibiting materials including oil, dust and dirt. Sto Bonding and Anti-Corrosion Agent must be applied immediately after cleaning of reinforcing steel to avoid new corrosion on reinforced steel.

Mixing

Use both components at a preconditioned temperature of $70 \pm 5^\circ\text{F}$ ($21 \pm 3^\circ\text{C}$). Use 1 gallon (3.8 L) jug of Component A per 28 pound (13 kg) bag of Component B.

Mixing must be achieved mechanically using a slow-speed drill and mixing paddle. Shake jug containing Component A. Pour all of liquid Component A into a clean, dry

5 gallon (19 L) mixing bucket. Mix while slowly adding the Component B powder, one third at a time. Continue mixing until all of the powder has been added. Mix thoroughly until Components A and B are evenly blended to a uniform color. Never add water to the mixture. Mix only sufficient material that can be used within its 90 minute pot life.

Application

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

Bonding Agent

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). Apply in one 20 mil (0.5 mm) coat with a hopper gun, pattern pistol-type spray equipment, or with a stiff-bristle brush. (Contact Sto representative.) Place fresh mortar or concrete while the Sto Bonding and Anti-Corrosion Agent is still wet or within 24 hours.

As a bonding agent only, one 20 mil (0.5 mm) coat is required.

Anti-Corrosion Agent

Brush on two 10 mil (0.25 mm) coats allowing 30-45 minutes between coats. Place fresh mortar or concrete after the Sto Bonding and Anti-Corrosion Agent has dried to the touch or within 24 hours. The total thickness must be a minimum of 20 mils (0.5 mm).

Curing

Protect from direct sun or wind which may cause unwanted rapid surface drying.

Clean Up

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

Limitations

- Apply only when surface and ambient temperatures are 45°F (7°C) and rising or 8°F (29°C) and falling.
- Mix Component A and Component B only in the specified ratios. Never add water to the mixture.
- **NOTE: Sto Bonding and Anti-Corrosion Agent dries in approximately 2 hours. Repair mortar/concrete must have sufficient flowability to "wet-out" the substrate in order to assure proper bonding of repair material.**

Health And Safety

Health Precautions

Contains Portland cement and silica. Avoid breathing dust. As with any chemical construction product, exercise care when handling.

Safety Precautions

Use adequate ventilation. Use of a NIOSH/MSA approved dust respirator, safety goggles and protective gloves are recommended.

First Aid

SKIN CONTACT: Wash hands thoroughly with soap and water
EYE CONTACT: Flush immediately with water for 10-15 minutes and contact a physician.
RESPIRATORY PROBLEMS: Remove affected person to fresh air immediately and contact a physician.
HYGIENE: Wash hands immediately after use. Wash clothing before reuse.

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 Material Safety Data Sheet (www.stocorp.com) for further health and safety information.

LIMITED WARRANTY

THIS PRODUCT IS SUBJECT TO A WRITTEN LIMITED WARRANTY WHICH CAN BE OBTAINED FREE OF CHARGE FROM Sto Corp. Refer to Sto Specifications for more complete information on proper use and handling of this product.

Sto Corp.
 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
www.stocorp.com

S155-80246
 Revision Number: 02
 Date: 03/2010



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 EXPRESS 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, www.stocorp.com.