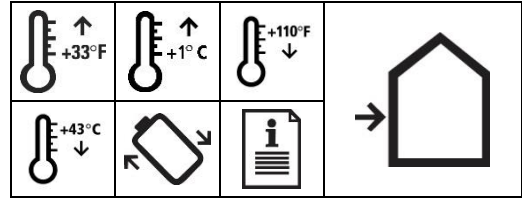


# Sto TurboStick®

81181 Sto TurboStick®



## Technical Data

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULTS
<b>Surface Burning</b>	ASTM E-84-10 (UL 723, UBC 8-1, NFPA 255)	< 25 Flame Spread	10
		< 450 Smoke Developed	5
<b>Tensile Strength</b>	ASTM C-297	Greater than 15 psi	> 15 psi; cohesive failure of EPS insulation board
<b>VOC (g/L)</b>	This product contains no VOC's. Complies with US EPA (40 CFR 59) VOC emission standards for architectural coatings.		

*Sto TurboStick® is a ready-to-use, single component polyurethane spray foam adhesive for securing Sto GPS Board, Sto EPS Insulation Board, Sto ProD® Board, and approved XPS insulation boards in StoTherm® ci exterior wall claddings.*

## Features Benefits

<b>1</b>	<b>Convenient Ready-to-Use Minimal preparation time</b>	<ul style="list-style-type: none"> <li>• Electric power not required for mixing or application</li> <li>• Easily moved from place to place on jobsite</li> <li>• Minimal mixing and set-up required</li> <li>• Just attach hose/pistol, shake and begin applying</li> </ul>
<b>2</b>	<b>Pre-pressurized Container</b>	Eliminates need for mixing pails, paddles, water and electrical source
<b>3</b>	<b>Compact Lightweight High coverage rate</b>	<ul style="list-style-type: none"> <li>• 850-1,000 ft² from a single 23 lbs. cylinder (compares to 400-500 lbs. of one-component powder adhesive)</li> <li>• Reduced transportation cost</li> <li>• Reduced storage space required</li> <li>• Reduced space needed on scaffold</li> </ul>
<b>4</b>	<b>Fast</b>	<ul style="list-style-type: none"> <li>• Cures in 1 hour or less</li> <li>• Less time to move on to rasp/basecoat</li> </ul>
<b>5</b>	<b>VOC Compliant</b>	• No VOC's – Meets South Coast Air Quality Management District Requirements

## Coverage

850-1,000 ft² per cylinder (79-93 m²).

*Coverage varies depending on application technique and surface conditions.*

## Packaging

31 lbs. (14.1 kg) gross weight pressurized cylinder

## Shelf Life

Up to 15 months, from manufacture date, if properly stored and sealed. Product should be used within 60 days after the cylinder's valve is first opened and before the "use by" date printed on the top of the carton.

## Storage

Store in a clean, dry area at room temperatures ranging from 50 to 75°F (10 to 24°C). Protect from freezing and direct sunlight. Avoid contact with water. Keep away from sources of heat, sparks, flame, ignition and physical abuse. Avoid temperature above 110°F (43°C). Use only with adequate ventilation. Store opened cylinder only sealing the pistol tip; by turning the flow control knob on the end of the pistol clockwise until it stops, leaving material in the hose and pistol. Do not close valves on tank or hose.

## Surface Preparation

### Substrates:

- Compliant glass mat faced or wood-based sheathing protected with StoGuard® air and moisture barrier system.
- ASTM C-1177 compliant Glass Mat faced gypsum sheathing.
- Exterior or Exposure I wood-based sheathing in compliance with US DOC PS-1 or PS-2
- Properly prepared concrete and masonry surfaces

### Sheathing:

Surface must be clean, dry and free of all bond-inhibiting materials. Sheathing must be installed and protected in accordance with manufacturer's and/or building code requirements. Remove and replace weather-damaged sheathing.

### Concrete and masonry surfaces:

Surfaces must be clean, dry, and free of frost, damage, and all bond-inhibiting materials, including dirt, efflorescence, form oil and other foreign matter. Loose or damaged material must be removed by water blasting, sandblasting or mechanical wire brushing and repaired.

Avoid application over irregular, out-of-plane surfaces. Resurface, patch or level surfaces to required tolerance and smoothness with appropriate Sto leveling materials. Refer to ASTM D-4258 and ASTM D-4261 for complete details on methods of preparing cementitious substrates for coatings.

# Sto TurboStick®

## Set-up, Mixing, and In-use Storage

### Set-up:

CAUTION: CONTENTS ARE UNDER PRESSURE. DO NOT USE WRENCHES TO OPEN OR CLOSE MAIN CYLINDER VALVE. Attach hose to cylinder valve by hand and avoid cross-treading hose fitting which will cause leaks. When hose fitting is hand-tight and properly threaded, tighten fitting with wrench. DO NOT OVERTIGHTEN. Repeat this process to attach the application pistol, avoid cross-threading and overtightening.

Use properly sized wrenches to avoid damage to hose and pistol fittings (14 mm, 17 mm, and 19 mm).

Check connections for leaks by shaking cylinder 10-15 seconds then opening the valves in the order that they were connected.

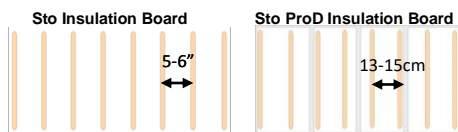
### Mixing:

Hold cylinder horizontally and shake vigorously side-to-side minimum 15 seconds. Mix before each day's use and after periods of inactivity or as necessary if adhesive flow becomes inconsistent.

## Application

Minimum ambient and surface temperature for use is 33°F (1°C) and rising. Maximum application temperature is 110°F (43°C).

- Apply Sto TurboStick to the back of the insulation board using the dispensing pistol. Place a ribbon of adhesive approximately ¾" (2 cm) from each end of the board, along the short dimension. Between these two ribbons, apply 6 additional ribbons spaced evenly (nominally 5-6" [13-15 cm] apart), and extending to, nominally, ½" (1 cm) from the edges of the insulation board at its long dimension. Form uniform ribbons of adhesive parallel to the short dimension of the board so the ribbons are oriented vertically in relation to the plane of the wall. Sto ProD insulation boards require two adhesive ribbons between each drainage channel. See illustration below:



- Position and install insulation board immediately after application of Sto TurboStick, before the adhesive ribbons skin over. Adhesive tack times will vary with humidity. Install the board using LIGHT but firm pressure, and staggered joints, taking care not to over-compress the adhesive ribbons. The time between placing adhesive ribbons onto the insulation board and the time the ribbons skin over is usually about 1-5 minutes.

### In-use Storage:

Sto Turbostick may be used over 60 days and could be stored for periods of time without removing the hose and pistol assembly.

Once the top valve on the cylinder is opened, DO NOT CLOSE IT. Clean the pistol and close the valve at the back of the pistol before storage. During storage ensure hose and pistol are protected to avoid abrasion or damage. It is recommended to cycle material through the hose and pistol every 10 – 21 days to minimize risk of material hardening in the hose and pistol. To cycle material mix TurboStick per instructions, open flow control knob on pistol by turning it counterclockwise 1 ¼ to 2 turns. Dispense TurboStick into open receptacle for 10 to 20 seconds to flush hose and pistol. Store again per storage.

When one cylinder is emptied, the hose and pistol should be immediately connected to another cylinder, so that wet material remains "primed" in the hose and pistol.

- Be precise with initial board placement. Sto TurboStick will not provide opportunity to "slide" the insulation board into position after placement.
- For partial boards, use the same procedure for the vertical ends, and apply additional ribbons of vertically oriented adhesive spaced nominally 5-6" (13-15 cm) apart.
- Starter Courses: Note that Sto TurboStick provides less initial "grab" compared to other Sto adhesives. For this reason, temporary support is recommended to hold the starter course in place, especially as subsequent courses of insulation board are added above.
- Shortly after the boards are placed, adjust the boards, using light pressure to create and maintain the plane of the insulation boards. A long level or other straight edge is helpful for this step.

### Curing/Drying

Sto TurboStick is a moisture-cured adhesive. As a result it will cure marginally quicker in higher humidity conditions. Full curing occurs in 1 hour under normal conditions [70°F (21°C), 50% RH]. Do not attempt to rasp insulation boards until TurboStick is fully cured, and insulation boards are well adhered.

### Clean Up

Sto TurboStick can be stored for up to 60 days and used again without disassembling the hose and pistol. See In-Use Storage instructions on how to properly store StoTurbostick once the hose and pistol are assembled.

Uncured or fresh foam adhesive may be removed using acetone or other solvent based cleaning solutions.

Dried material can only be removed mechanically

## Health And Safety

### DANGER!

#### Health Precautions

May cause allergic skin reaction. Causes eye and skin irritation. Use of a NIOSH approved respirator, safety goggles and protective gloves is recommended. May cause eye irritation. Vapor reduces oxygen available for breathing. May cause anesthetic effects. May cause respiratory tract irritation. May cause lung injury. Aspiration hazard. Elevated temperatures can cause hazardous polymerization. Toxic fumes may be released in fire situations. Contents are under high pressure. Avoid temperature above 110°F (43°C).

#### Safety Precautions

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist vapors, spray. Use only outdoors or in well-ventilated area. Safety goggles and protective gloves are recommended. Remove contaminated clothing immediately. Wash skin thoroughly after handling.

#### First Aid

**SKIN CONTACT:** Wash thoroughly with soap and water. Use of a polyglycol-based skin cleanser or corn oil may be more effective than soap and water.

**EYE CONTACT:** Flush eyes immediately with water for 15 minutes; remove contact lenses, if present, after the first 5 minutes, then continue flushing for the remainder or the 15 minutes. Obtain medical attention immediately.

**RESPIRATORY PROBLEMS:** Remove affected person to fresh air immediately and contact a physician. **INGESTION:** Do not induce vomiting. Contact a physician. **HYGIENE:** Wash hands immediately after use. Wash clothing before re-use.

#### Spills

Absorb with materials such as sawdust, dirt, vermiculite, sand, clay or Milsorb. Collect in suitable and properly labeled open containers, such as metal or plastic drums or polylined fiber pacs. Wash the spill site thoroughly with water.

#### Disposal

Dispose of in accordance with local, state or federal regulations. Release contents and pressure from the cylinder before disposal. Do not discard pressurized cylinder. Do not discharge contents onto the ground, into any bodies of water or into any sewers.

#### 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) at [www.stocorp.com](http://www.stocorp.com) for further health and safety information.

# Sto TurboStick®

## Limitations

- Protect installed materials from rain and freezing until fully cured.
- Use Sto TurboStick only when surface and ambient temperatures are above 33°F (1°C) and below 110°F (43°C) during application and curing period.
- Use caution when applying in windy conditions to protect adjacent property from contact with uncured windblown adhesive.

**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.

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**S155-81181**  
Revision: A5.1  
Date: 04/2024

### 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, [www.stocorp.com](http://www.stocorp.com).