



Building with conscience.

# Application Guide

Sto TurboStick®

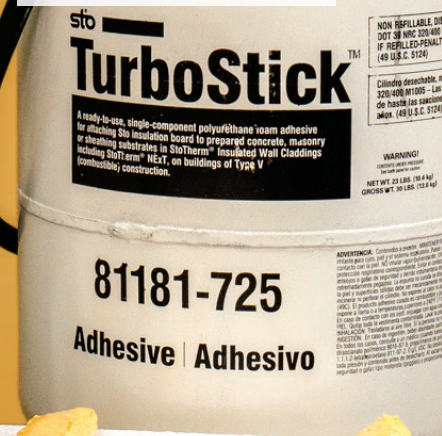
Sto TurboStick® Mini

Façade



Façade adhesives

Sto TurboStick® and Sto TurboStick® Mini are ready-to-use, single component polyurethane foam adhesives for securing Sto EPS insulation boards in StoTherm® exterior wall claddings including StoTherm® ci XPS. They are also used to attach continuous insulation in StoEnergy Guard® applications.





# Material Handling

## Sto TurboStick®

- Sto TurboStick may be stored up to 60 days without removing the hose and pistol assembly.
- Once the top valve on the cylinder and valve to the hose are opened, DO NOT CLOSE THEM. Clean the pistol tip and only close the flow control knob at the back of the pistol for storage.
- During periods of extended storage, 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, shake TurboStick cylinder per instructions, open flow control knob on pistol by turning it counterclockwise, and dispense TurboStick into open receptacle for 10 to 20 seconds to flush hose and pistol.
- Once a cylinder is empty, the hose and pistol should be immediately connected to another cylinder. Open the valves on the tank and hose so that wet material in the hose and pistol remains “pressurized”.
- Ensure empty cylinders are completely depressurized before disposal. Open cylinder valve fully and allow all remaining TurboStick and air to escape. Dispose of containers in accordance with local laws and requirements.

## Sto TurboStick® Mini

- Clean pistol tip and close the flow control valve when storing partially used Sto TurboStick Mini canisters.
- Do not remove canisters from the pistol except for disposal.

## Handling

The assembled Sto TurboStick cylinder, hose, and pistol system should remain pressurized. Once assembled, the yellow valve on the top of the cylinder should remain open except during transport. During transport, the tap on top of the cylinder must be closed, the foam pistol must be secured, and the flow-control knob at the rear of the pistol must be fully tightened.

## Safety

Sto TurboStick and Sto TurboStick Mini are packaged under pressure. Improper handling and damage to the container can result in rapid and uncontrolled escape of material, which could result in injury to persons or damage to property in its vicinity. For this reason, it is especially important to observe the handling, assembly, installation, and storage instructions for these products.

## Curing and Drying

- Sto TurboStick and Sto TurboStick Mini are moisture-cured adhesives and will cure more quickly in high humidity conditions.
- Full curing occurs in approximately 1 hour at 70°F (21°C and 50% R.H.
- Do not attempt to rasp insulation boards until adhesive is fully cured and insulation boards are well adhered.



# Equipment Assembly

## Sto TurboStick Cylinder, Hose, and Pistol Assembly



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

1. Hold cylinder horizontally and shake vigorously side-to-side for 10 to 15 seconds to mix contents (Figure 1).
2. Hand-tighten hose fitting onto TurboStick cylinder (Figure 2). Cross-threading the fittings will result in leaks at the connection. Use properly sized open-end wrench to tighten fitting. **DO NOT OVERTIGHTEN.**
3. Verify the valve on the hose and the flow-control knob on the pistol are fully **CLOSED**. Secure hose to cylinder handle with plastic tie to protect hose and the connection from incidental damage during use (Figure 3).
4. Hand-tighten hose fitting onto pistol inlet fitting. **AVOID CROSS-THREADING.** Use properly sized open-end wrench to tighten fitting (Figure 4). **DO NOT OVERTIGHTEN.**
5. Open cylinder and hose valve (Figure 5). Observe for leaks **DO NOT USE TOOLS TO OPEN OR CLOSE THE CYLINDER VALVE. CONTENTS OF CYLINDER ARE UNDER PRESSUR AND COULD CAUSE INJURY IF CYLINDER VALVE IS DAMAGED. DO NOT OVERTIGHTEN.**
6. Open flow-control knob on the back of the pistol (Figure 6) and dispense TurboStick material into an open container until steady flow and uniform consistency are achieved.

## Sto TurboStick® Mini Assembly



Figure 7



Figure 8

1. Shake canister vigorously for at least 30 seconds (Figure 7).
2. Remove plastic cap from canister.
3. Screw canister onto pistol and secure connection by hand. **DO NOT OVERTIGHTEN** (Figure 8).
4. Turn the flow-control knob on the back of the pistol to adjust flow and ribbon size. Spray initially into an open container until steady flow and uniform consistency are achieved.
5. As soon as the canister is empty, remove and connect a new canister to the pistol and continue to use. Delay in transfer can cause pistol to clog.



# Application Instructions

## Sto TurboStick® Adhesive

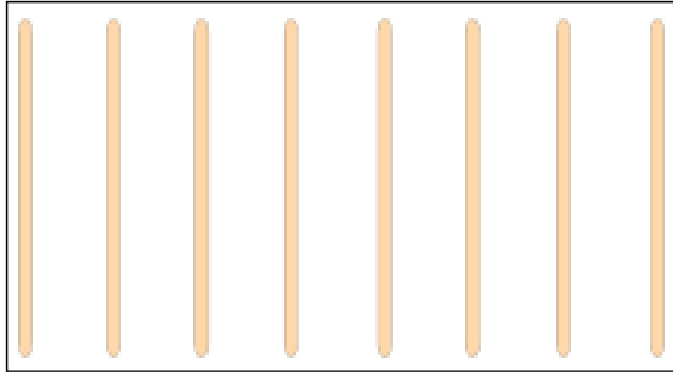


Figure 9a

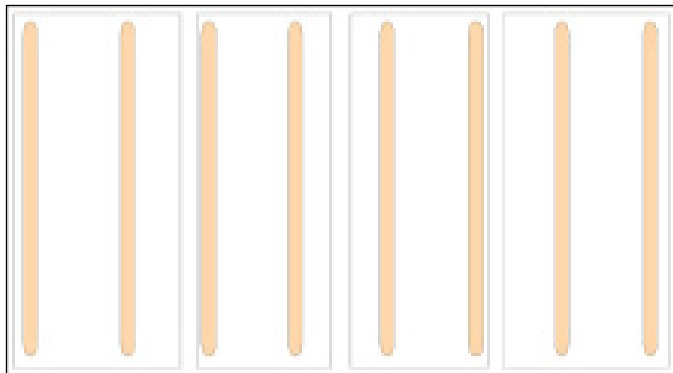


Figure 9b

1. Apply adhesive to a sample insulation board using the pistol and adjust flow rate and speed to produce properly sized adhesive ribbons.
  2. Apply a ribbon to each end of the insulation board, parallel to the short dimension of the board. Position the end ribbons approximately  $\frac{3}{4}$  inch (19 mm) from the end of the insulation board.
  3. Apply six (6) more ribbons to each 2' x 4' (0.6 x 1.2 m) insulation board, evenly spaced (nominally 5" to 6" [127-152 mm] apart) between the end ribbons.
  4. Start and stop adhesive ribbons approximately  $\frac{1}{2}$  inch (13 mm) from the edge of the board.
  5. Where used, Sto ProD insulation boards shall have two adhesive ribbons between each drainage channel (Figure 9b).
- NOTE:** TurboStick and TurboStick Mini application pattern is the same for both standard (flat) (Figure 9a) Sto insulation board and Sto ProD (Figure 9b) insulation board.
6. TurboStick: Apply insulation board to prepared substrate when adhesive ribbons have tack and before the surface of ribbons begin to form a skin.
  7. TurboStick Mini: Apply insulation board immediately after application. The adhesive will generally remain tacky for up to 5 minutes, depending on temperature and humidity conditions.
  8. Be precise with the initial placement of insulation boards. The adhesive sets rapidly and provides limited opportunity to slide boards into position after placement.
  9. Install insulation boards in a running bond pattern with joints tightly abutted and lightly press boards into place. Slight post-expansion of the adhesive will occur which can cause unevenness at board joints. Use a straight edge to lightly press boards and keep board joints flush.
  10. For partial boards, use the same procedure as full boards with ribbons of adhesive, spaced not more than 5" to 6" (127-152 mm) apart.
  11. Starter courses: Provide temporary support for the initial course of insulation board to hold it in place as subsequent courses are added above.

## Contact Information

### Sto Corp.

3800 Camp Creek Parkway  
Building 1400, Suite 120  
Atlanta, Georgia 30331  
USA

### InfoService

Phone: 404-346-3666  
Toll Free: 800-221-2397  
[www.stocorp.com](http://www.stocorp.com)

4 Property of Sto Corp. All Rights Reserved.



#### ATTENTION

Sto products are 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. They 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 Sto products 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).