

TECHNICAL DATA SHEET



Handi-Stick® Polystyrene Construction Adhesive



Handi-Stick® Polystyrene Construction Adhesive is a one-component polyurethane foam adhesive specifically designed for adhering expanded and/or extruded polystyrene, foundation insulation systems, and Insulated Concrete Forms (ICFs). The unique product properties, performance and professional application system gives Handi-Stick® Polystyrene Construction Adhesive many advantages over traditional caulks. Handi-Stick® Polystyrene Construction Adhesive utilizes an (HC) propellant. Refer to the product storage and special handling section of this document for information regarding the use of flammable aerosol propellants.

Handi-Stick® Polystyrene Construction Adhesive is available as a 24oz and 31oz size gun foam and can be dispensed through any Handi-Tool® one-component dispensing unit. Handi-Stick® Polystyrene Construction Adhesive is tested according to ASTM D6464 and meets or exceeds the adhesive, tensile, and shear strength requirements.

Properties

The pre-pressurized, portable, one-component foam adhesive system, applied in a bead form, dries tack-free within 3 minutes or less depending on moisture and temperature conditions. Expansion of 1-2 times the dispensed bead within the first hour should be expected.

Handi-Stick® adheres to polystyrene, concrete, cinder block, brick, cement board sheathing, exterior gypsum board, oriented strand board (OSB), plywood and many other substrates.

Cured Handi-Stick® Polystyrene Construction Adhesive is chemically inert and non-reactive.

Limitations

Handi-Stick® Polystyrene Construction Adhesive adheres to almost all building materials with the exception of surfaces such as polyethylene, Teflon®, silicone, oils, greases, mold release agents, and similar materials.

Optimum chemical temperature is between 65°F and 80°F (18°C to 27°C), but may be applied in cold or hot ambient conditions, as long as the working chemical temperature range is maintained. Cured foam is dimensionally stable, and known to be resistant to temperatures ranging between -200°F to +240°F (-129°C to +115°C).

Preparation for Use

Substrate must be clean, firm, free of loose particles, dust, grease, mold release agents and similar materials. Protect surfaces not to be foamed. Read all applicable instructions for the dispensing unit and foam systems, which are included with each product, prior to any use.

Shake Can well *before* using.

Application/Use

After following instructions for set-up, cans are ready to use. The dispensing units can be metered by pulling the dispensing unit trigger for the desired rate, or with the metering screw located in the back. Foam application can be interrupted when needed as outlined in the instructions and the dispensing unit will be ready for immediate re-use, as long as it remains attached to a pressurized container. Empty gun foam container must be replaced with a new container. Handi-Stick® Polystyrene Construction Adhesive is especially useful for irregular voids and on non-linear cracks and crevices. Filling excessively large cavities can result in a prolonged curing process. Also, insufficient air or substrate moisture during cure may cause delayed expansion.

Remove fresh foam over spray with Handi-Cleaner® (P10083) or solvents such as acetone. Cured foam can only be removed manually.

Important Note: Use only in well ventilated areas. Wear protective glasses or goggles, nitrile gloves, and clothing that protects against dermal exposure when using. Read all instructions and safety information prior to use of any product. Consult the product's MSDS (Available at www.fomo.com). The product contains no formaldehyde. Cured foam is non-toxic.

KEEP OUT OF REACH OF CHILDREN.

Special Handling

The propellant is extremely flammable during dispensing and cure. Provide sufficient cross-ventilation to remove any buildup of vapors. Keep away from heat, sparks and sources of ignition. Turn off all pilot lights. Vapors may cause flash fire if ignited. Contents are under pressure. Do not puncture, incinerate or store above 120°F (49°C). Do not place in hot water or near radiators, stoves, motor vehicles or other sources of heat. Cured urethane foam produced from these ingredients will support combustion and may present a fire hazard if exposed to a fire or excessive heat 240°F.

Product Storage

Store in cool, dry area. Do not expose to open flame or temperatures above 120°F (49°C). Excessive heat can cause premature aging of components resulting in a shorter shelf life. Handi-Stick® Polystyrene Construction Adhesive is reusable by following product instructions.

Fomo Products, Inc.
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Technical Data

| | |
|---|--|
| CORE DENSITY ASTM D1622 | .92 lbs/ft ³ (14.7 kg/m ³) |
| K-FACTOR ASTM C518-INITIAL | 0.267 BTU-inch / ft ² ·h·°F (0.038 W/m·K) |
| R-VALUE | 3.75/inch |
| TENSILE STRENGTH ASTM D6464 <i>Tested at 14 days</i> | 39 psi (268 kPa) |
| Shear Strength ASTM D6464 <i>Tested at 14 days</i> | 48 psi (330kPa) |
| TACK-FREE TIME | Approx. 3 minutes |
| FULLY CURES 1" bead at room conditions | 12-24 hours |
| Full Bond Time | 7 Days |
| Cuttable (1" Bead) | <1 hour |
| FIRE RATING ASTM E84 Caulking & Sealant <i>Tested at 3/4" bead thickness</i> | Flame Spread Index = 5 Smoke Developed =5 |

Approvals / Standards

ASTM E84 Caulking & Sealants
Tested at 12.5% Surface Coverage Area
Flame Spread 5
Smoke Developed 5

LEED: This product may contribute credits for LEED (Leadership In Energy & Environmental Design) categories based on the Following:

- Contains approximately 11% by weight of rapidly renewable materials.
- According to SCAQMD Rule #1168 polyurethane foams are classified as architectural foam sealants– VOC content is limited to 250g/L– Polystyrene Construction Adhesive has less 14% VOC content by weight or 144 g/L

Theoretical Yield*

| Product | Bead Size | | | VOLUME |
|-----------------------------------|---------------------|--------------------|--------------------|----------------------------------|
| | 1/4" (6.3 mm) | 3/8" (9.5 mm) | 1/2" (12.7 mm) | |
| 24oz (680g) Gun Foam P30132 | 4784 ft (1459 m) | 2126 ft (648 m) | 1196 ft (364 m) | 1.63 ft ³ (46.2L) |
| 31oz (880g) Gun Foam P30162 | 6193 ft (1888m) | 2752ft (839m) | 1548 ft (472m) | 2.11 ft ³ (55.8L) |

*Yields are based on theoretical calculations, for comparison purposes, and will vary depending on ambient conditions and particular application.

Always read all operating, application and safety instructions before using any products from Fomo Products, Inc. Use in conformance with all local, state and federal regulations and safety requirements. Failure to strictly adhere to any recommended procedures and reasonable safety precautions shall release Fomo Products of all liability with respect to the materials or the use thereof. For additional information and location of your nearest distributor, call Fomo Products, Inc. 1 330.753.4585 or 1 800.321.5585.

NOTE: Physical properties shown are typical and are to serve only as a guide for engineering design. Results are obtained from specimens under ideal laboratory conditions and may vary upon use, temperature and ambient conditions. Right to change physical properties as a result of technical progress is reserved. This information supersedes all previously published data. Yields shown are based on theoretical calculations and will vary depending on ambient conditions and particular application. Read all product directions and safety information before use. Consult local building codes for specific requirements regarding the use of cellular plastics or urethane products in construction.

WARNINGS: Follow safety precautions and wear protective equipment as recommended. Consult Material Safety Data Sheet (MSDS) at www.fomo.com for specific information. Use only in a well ventilated area or with certified respiratory protection. NIOSH approved positive pressure supplied air respirator is recommended if exposure guidelines may be exceeded. Contents may be very sticky and irritating to skin and eyes, therefore wear safety glasses or goggles, nitrile gloves, and clothing that protects against dermal exposure when operating. If liquid chemical comes in contact with skin, first wipe thoroughly with dry cloth, then rinse affected area with water. Wash with soap and water afterwards, and apply hand lotion if desired. If liquid comes in contact with eyes, immediately flush with large volume of clean water for at least 15 minutes and get medical help at once. If liquid is swallowed, get immediate medical attention. Products manufactured or produced from these chemicals are organic and, therefore, combustible. Each user of any product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage. **KEEP OUT OF REACH OF CHILDREN.**

LIMITED WARRANTY: The Manufacturer warrants only that the product shall meet its specifications: THIS WARRANTY IS IN LIEU OF ALL WRITTEN OR UNWRITTEN, EXPRESSED OR IMPLIED WARRANTIES AND THE MANUFACTURER EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. The buyer assumes all risks whatsoever as to the use of the material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the replacement of the material. Failure to strictly adhere to any recommended procedures shall release The Manufacturer of all liability with respect to the materials or the use thereof. User of this product must determine suitability for any particular purpose, including, but not limited to, structural requirements, performance specifications and application requirements prior to installation and after product is applied.



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