

TECHNICAL DATA SHEET



Window and Door Sealant

Handi-Seal® Window and Door Sealant is a multiple purpose, UL classified, one-component polyurethane foam designed specifically for window and door installation and retro-fit applications. Handi-Seal Window and Door Sealant is designed within the international guidelines for protection of the ozone layer, and with respect to the Montreal Protocol, 1987 and other environmental guidelines, utilizing a non-flammable, non-ozone depleting blowing agent to assist in the safety of the end user and the environment.

Handi-Seal Gun Foam is designed to be dispensed through any professional one-component dispensing unit. Handi-Seal Straw Foam is designed to be dispensed through a straw adapter (included with each can). A critical advantage of Handi-Seal Window and Door Sealant is its extremely low pressure build while curing, which greatly reduces the chance of bowing. The product forms a superior air seal which prevents heat loss, noticeable drafts and is ideal for a variety of application areas. Handi-Seal's patented foam formulation has significant closed cell content, which improves moisture resistance.

Application Areas

Apply Handi-Seal Window and Door Sealant onto any clean surface to fill and seal around windows and door frame joints, beneath base plates, mud sills, top plate penetrations, corner joints, T-joints, exterior cracks, around utility panels, pipes and duct penetrations. It is specifically designed to be dispensed as a bead for filling cracks, crevices and smaller cavities on flat or irregular surfaces.

Properties

Handi-Seal Window and Door Sealant is a pressurized, portable, one-component foam system. Applied in a bead form, it cures slowly to a semi-rigid closed cell foam upon reaction with moisture, such as ambient humidity. A desirable bead growth of 200-300% during the first hour of cure should be expected. Expansion is dependent on ambient conditions. Handi-Seal forms a superior air seal that prevents heat loss and noticeable drafts. Handi-Seal provides a higher R-value than open cell polyurethane window and door foam sealants.

Handi-Seal meets AAMA (American Architectural Manufacturers Association) test specifications for low pressure window and door sealant foams. Handi-Seal Window and Door Sealant cures tack-free within 5 minutes depending on moisture and temperature conditions. A one inch bead at room conditions is cuttable within 1 hour and is fully cured in 12-24 hours. The cured product is easily identified by its unique gray color.

Handi-Seal Window and Door Sealant adheres to almost all building materials with the exception of surfaces such as polyethylene, Teflon®, silicone, oils and greases, mold release agents, and similar material. Optimal application temperature is between 65 - 80°F (18 - 27°C) and may be used between 40 - 115°F (4 - 46°C). Cured foam is resistant to heat and cold, -200 - +240°F (-129 - +115°C),

and to aging, but not UV rays (i.e. sunlight) unless painted, covered or coated. Cured PU foam is chemically inert and non-reactive in approved applications, and will not harm electrical wire insulations, Romex®, rubber, PVC, polyethylene (i.e. PEX) or other plastic. It is approved for use around wires, plumbing penetrations, etc., and contains no formaldehyde. Handi-Seal Window and Door Sealant systems require no outside mechanical or electrical power source.

When applied, the foam will seal, bond, and protect against dust, air infiltration, pests and much more.

Preparation For Use

Substrate must be clean, firm, free of loose particles and free of dust, grease and mold release agents. Surfaces not to be foamed must be protected.

Application / Use

After following the instructions for set-up, the product is ready to use. Foam application can be interrupted, when needed, as outlined in the instructions. Filling excessively large cavities can result in a prolonged curing process. Also, insufficient air or substrate moisture during cure may cause delayed expansion. Spraying the cavities with a water atomizer will aid foam cure.

Remove fresh foam over spray with Handi-Cleaner (P10083) or solvents such as acetone. Cured foam can only be removed mechanically. The multi-purpose Handi-Cleaner product is also designed for cleaning the dispensing gun internally for long-term storage and applications interruptions.

Important Note: Use only in well ventilated areas. Wear impervious gloves, protective eyewear, and suitable work clothes when using. Read all instructions and safety information (MSDS) prior to use of any product. The product contains no formaldehyde. Cured foam is non-toxic. **KEEP OUT OF REACH OF CHILDREN.**

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 shorter shelf life. Handi-Seal Window and Door Sealant is reusable by following product instructions.



Fomo Products, Inc.
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Technical Data

CORE DENSITY	1.44 lbs./ft. ³ (23 kg./m. ³)
R-VALUE ASTM C518	4-5 per inch, typically
RSI (METRIC R-VALUE)	(0.7-0.8/inch, 0.005-0.006/mm)
AIR BARRIER PROPERTIES ASTM E-283	
@6.24 psf (300 Pa)	<0.01 cfm/ft ² (0.05 L/s/m ²)
@1.57 psf (75 Pa), extrapolated	<0.0025 cfm/ft ² (0.0125 L/s/m ²)
TACK-FREE TIME 70°F (21°C), 40% RH	Approx. 5 min.
CURE TIME	12-24 hours
CUTTABLE (1" BEAD AT ROOM CONDITIONS)	<1 hour
PRESSURE BUILD*	.17-1.25 psig

*Tested according to AAMA (812-04) test method for low pressure window and door sealing foam. All properties obtained using internal test methods, unless otherwise indicated.

Approvals / Standards

Handi-Seal One-Component Window and Door Sealant conforms to the following Classifications, Codes and Standards:

Complies with AAMA document 812-04

UL Classified - File # R13919 Caulking and Sealants
ASTM E-84 (8.3%)
Flame Spread 5
Smoke Developed 10

ASTM E-2112 Standard Practice for Installation of Windows, Doors and Skylights, sec. 5.9.2

Canadian Standards Association Window and Door Installation Guidelines, A440.4-98

ODP (Ozone Depletion Potential): Contains non-ozone depleting, non-flammable HFC propellant.

VOC Content: Contains no VOCs.

NFPA 30B Classification: Level 1 Aerosol

Theoretical Yield*

Product	Bead Size			Volume
	1/4" (6.3 mm.)	3/8" (9.5 mm.)	1/2" (12.7 mm.)	
24 oz. (680 g) P10131 Gun Foam	2900 ft. (884 m)	1290 ft. (393 m)	726 ft. (221 m)	1.04 ft ³ (29.5 liters)
24 oz. (680 g) P10141 Straw Foam	2140 ft. (652 m)	950 ft. (290 m)	534 ft. (163 m)	.79 ft ³ (22.4 liters)

*Yields are based on theoretical calculations, for comparison purposes, and will vary depending on ambient conditions and particular application. One 24 oz can of HANDI-SEAL® will seal 5-7 average sized windows. Theoretical yield is based on published core density (an inverse relationship). Note that straw foam core density may be up to 30% higher than gun foam, and consequently, the theoretical yield is reduced accordingly, based on 1.9 lbs/ft³.

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) for specific information. Prolonged inhalation exposure may cause respiratory irritation/sensitization and/or reduce pulmonary function in susceptible individuals. Onset may be delayed. Pre-existing respiratory conditions may be aggravated. Use only with adequate ventilation or 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 protective eyewear, impervious gloves, and suitable work clothing 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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