# **TECHNICAL DATA SHEET**



Straw Foam One-Component Polyurethane Foam

Handi-Foam<sup>®</sup> Polyurethane Foam is a multiple purpose, UL classified one-component polyurethane foam designed within the international guidelines for protection of the ozone layer, and with respect to the Montreal Protocol, 1987, the Kyoto Protocol, 1999, and other environmental guidelines, utilizing a non-flammable blowing agent to assist in the safety of the end user. It is designed for easy dispensing through the straw adapter included with each can.

### **Application Areas**

Apply Handi-Foam, one-component foam onto any clean surface to fill, insulate and seal around gaps, beneath base plates, mud sills, top plate penetrations, corner joints, T-joints, exterior cracks, around utility panels, pipes, duct penetrations, etc. It is specifically designed to be dispensed as a bead for filling cracks, crevices, and to fill smaller cavities.

#### Properties

The pre-pressurized, portable one-component foam system, applied in a bead form, expands and cures slowly to a semi-rigid, closed cell foam upon reaction with moisture, such as ambient humidity.

Handi-Foam one-component foam dries tack-free in approximately 8-10 minutes or less depending on moisture and temperature conditions. Fully cures within 24 hours. Expansion of 2–3 times the dispensed bead within the first hour should be expected.

Handi-Foam one-component foam adheres to almost all building materials with the exception of surfaces such as polyethylene, Teflon<sup>®</sup>, silicone, oils and greases, mold release agents, and similar materials.

Optimal application temperature is between  $65^{\circ}F$  ( $18^{\circ}C$ ) and  $100^{\circ}F$  ( $38^{\circ}C$ ) and may be used between  $40^{\circ}F$  ( $4^{\circ}C$ ) and  $115^{\circ}F$  ( $46^{\circ}C$ ). Cured foam is resistant to heat and cold, -200°F to +200°F (-129°C to + 93°C), and to aging, but not UV rays unless painted, covered or coated. Cured foam is also chemically inert and non-reactive in approved applications.

Handi-Foam systems require no outside mechanical or electrical power source and are disposable. Handi-Foam systems are available in various container sizes to meet specific job applications requirements. When applied, the foam will seal, bond, insulate and protect against dust, pests, air infiltration, etc.

#### **Preparation For Use**

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

Shake cans before using.



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For best results in cavities larger than 3 inches in diameter, dampen substrate to supplement atmospheric humidity in affecting consistent cure throughout applied foam.

## Application/Use

After following instructions for setup, cans are ready to use. The foam sealant flow can be metered by means of tilting the one piece



straw adapter with the valve pointing downwards. By activating the adapter lever carefully, the extrusion rate can be regulated. Foam application can be interrupted when needed, as outlined in the instructions. Handi-Foam one-component foam is especially useful for irregular voids and on non-linear cracks and crevices, as foam will expand up to 200% during curing process. 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-Foam<sup>®</sup> Polyurethane Cleaner (P10083) or solvents such as acetone. Cured foam can only be removed mechanically.

**Important Note:** Use only in well ventilated areas. Wear impervious gloves (i.e. nitrile), eye protection and protective clothing when using. Read all instructions and safety information (MSDS) prior to use of any 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 a shorter shelf life. Handi-Foam is reusable by following product instructions.

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# **Technical Data**

CORE DENSITY	1.2 lbs./ft. <sup>3</sup> (19.2 kg./m. <sup>3</sup> )	
R-Value	4-5 per inch (.03 w./m.k.) typically	
Air Barrier Properties ASTM E-283 @1.57 psf (75 Pa) @6.24 psf (300 Pa)	<0.01 cfm/ft.² (0.05 L/s/m²) <0.01 cfm/ft.² (0.05 L/s/m.²)	
CLOSED CELL CONTENT ASTM D-2856	> 70%	
<b>Таск-Free Тіме</b> 70°F (21°С), 40% RH	Approx 10 min.	
CURE TIME	12 - 24 hours	
CUTTABLE 1" bead at room conditions	1 hour	

# **Approvals / Standards**

Handi-Foam One-Component Foam is approved by the following Classifications, Codes and Standards:

UL Classified - File # R13919 Caulking and Sealants ASTM E-84 (12.5%) Flame Spread 25 Smoke Developed 50

ODP (Ozone Depletion Potential): Contains HCFC 22 propellant. Consult MSDS for reporting requirements.

VOC Content: Contains no VOC's.

NFPA 30B Classification: Level 1 Aerosol

# **Theoretical Yield\***

Product	Bead Size			
	1/4"	3/8"	1/2"	
	(6.3 mm.)	(9.5 mm.)	(12.7 mm.)	Volume
12 oz. (340 g.)	1760 ft.	780 ft.	440 ft.	0.625 ft. <sup>3</sup>
P10002	(536 m.)	(238 m)	(134 m.)	(17.7 liters)
<b>24 oz. (680 g.)</b> P10101	3500 ft. (1067 m.)	1560 ft. (476 m.)	880 ft. (268 m.)	1.25 ft. <sup>3</sup> (35.4 liters)
<b>33 oz. (935 g.)</b> P10151	4800 ft. (1460 m.)	2150 ft. (655 m.)	1200 ft. (366 m.)	1.72 ft. <sup>3</sup> (48.7 liters)

\*Yields are based on theoretical calculations, for comparison purposes, and will vary depending on ambient conditions and particular application. Evaluation by CCMC sample preparation technique, yields 15.2 liters for the 1-24 oz size.

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, Outside Ohio.

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. 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, EX-PRESSED 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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