

TECHNICAL DATA SHEET



Black One-Component Polyurethane Foam Sealant

Handi-Foam® Black Polyurethane Foam Sealant (straw and gun 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 and other environmental guidelines. The propellants/blowing agents are non-ozone depleting (non-CFC, non-HCFC) and environmentally compliant. It is designed for easy dispensing either through the one piece straw adaptor, or through any of the professional one-component dispensing units specifically designed for dispensing Handi-Foam® Gun Foam.

Application Areas

Handi-Foam Black One-Component Polyurethane foam is specially formulated with black color, making it ideally suited for areas where product appearance may be a factor, such as for landscaping and water feature design, R.V. under-carriage, etc. It also may be used for filling and sealing around gaps, beneath base plates, mud sills, corner joints, t-joints, exterior cracks, around utility panels, pipes, penetrations, etc. The dispensing units are specifically designed to dispense a controllable bead with minimum waste and easy cleaning for filling cracks, crevices, and to fill smaller cavities on flat or irregular surfaces.

Properties

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

Handi-Foam dries tack-free in approximately 5 minutes, is cuttable in one hour and fully cures within 24 hours depending on moisture and temperature conditions.

Handi-Foam adheres to almost all building materials with the exception of surfaces such as polyethylene, Teflon®, silicone, oils and 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).

Handi-Foam is water resistant and will not harm electrical wire insulations, Romex®, rubber, PVC,

polyethylene or other plastic (i.e. PEX, CPVC). It is approved for use around wires, plumbing penetrations, etc., and contains no formaldehyde. When cured, polyurethane foam is permanent, chemically inert, non-reactive and stable for an indefinite period of time. Cured foam should be protected against UV rays (i.e. sunlight) by painting or staining to prevent long term discoloration or degradation.

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

Preparation For Use

Read all applicable instructions for the dispensing unit and foam systems, which are included with each product. Substrate must be clean, firm, free of loose particles and free of dust, grease and mold release agents and similar material. Protect surfaces not to be foamed. For best results in cavities larger than 3 inches in diameter, dampen substrate to supplement atmospheric humidity in affecting consistent cure throughout applied foam.

For products designed to be use with one-component dispensing units, screw the can onto the gun coupling until it will go no further. Do not over tighten. Once attached, grip the can and the unit with both hands and shake well (15-20 times). Immediately pull the dispensing gun trigger to fill the unit with foam sealant. Adjust the larger metering screw to the required extrusion rate / bead size. For the straw foam, simply screw the one-piece straw adapter onto the valve stem and shake the can.

Application/Use

After following instructions for set-up, the product is ready to use. The foam sealant flow can be metered by pulling the gun trigger for the desired extrusion rate or by means of tilting the one piece straw adapter. Foam application can be interrupted when needed as outlined in the instructions. Empty gun foam container must be replaced immediately with a new container. Filling excessively large cavities can result in a prolonged curing process, and 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 mechanically. The multi-purpose Handi-Cleaner is also designed for cleaning the dispensing unit internally for long-term storage and application interruptions. Once Cleaner is used, apply a fresh can of foam for storage.

Important Note: Use only in well ventilated areas. Wear impervious gloves, eye protection and protective clothing when using. Read all instructions and safety information (MSDS) prior to use of any product, including the Special Handling and Product Storage information in this Technical Data Sheet. This product contains no formaldehyde. Cured foam is non-toxic. **KEEP OUT OF REACH OF CHILDREN.**



Fomo Products, Inc.
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Technical Data

| | (METRIC SHOWN IN PARENTHESES) |
|---|--|
| CORE DENSITY- NOMINAL | 1.1 lbs / ft ³ (17.6 kg/m ³) |
| R-VALUE | 4-5 per inch, (.03 W/mK) 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) @1.57 psf (75 Pa), extrapolated | <0.01 cfm/ft ² (0.05 L/s/m ²) <0.0025 cfm/ft ² (0.0125 L/s/m ²) |
| CLOSED CELL CONTENT ASTM D-2856 | >70% |
| 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 |

Approvals / Standards

Handi-Foam Black Polyurethane 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 non-ozone depleting hydrocarbon propellant.

VOC Content: Contains less than 20% by weight VOC's.

NFPA 30B Classification: Level 2 Aerosol

Theoretical Yield*

| Product | Bead Size | | | VOLUME |
|---|----------------------|---------------------|---------------------|-------------------------------------|
| | 1/4" (6.3 mm) | 3/8" (9.5 mm) | 1/2" (12.7 mm) | |
| 12 oz. Black Straw Foam (340 g) P30053 | 1996 ft. (608 m) | 887 ft. (270 m) | 499 ft. (152 m) | 0.68 ft ³ (19 liters) |
| 24 oz. Black Gun Foam (680 g) P30251 | 4403 ft. (1342 m) | 1957 ft. (596 m) | 1101 ft. (336 m) | 1.5 ft ³ (42 liters) |
| 29 oz. Black Gun Foam (820 g) P30295 | 5313 ft. (1619 m) | 2361 ft. (720 m) | 1328 ft. (405 m) | 1.81 ft ³ (51 liters) |

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

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. Vapors may cause flash fire if ignited. Contents are under pressure. Do not puncture or incinerate. Do not place in hot water or near radiators, stoves or other sources of heat.

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. For storage of flammable aerosol products, consult local building codes for specific requirements which may be applicable to storage of larger quantities. Always store dispensing unit with a pressurized container attached to assure correct functioning of gun.

Always read all operating, application and safety instructions before using any products. 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 the manufacture of all liability with respect to the materials or the use thereof.

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. This product is organic and therefore may constitute a fire hazard if improperly installed. 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 reduced 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 or a negative pressure half mask with organic vapor cartridge and dust/mist prefilters 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 clothes 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 may present a fire hazard if improperly used. 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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