

TECHNICAL DATA SHEET



Two-Component Commercial Vehicle Spray Foam Refill Systems

Handi-Foam® Two-Component Commercial Vehicle Refill system is a multiple purpose two-component froth 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, utilizing a non-flammable non-ozone depleting blowing agent to assure in the safety of the end user. Refill systems are dispensed through the state-of-the-art Handi-Gun® froth dispensing unit, providing unsurpassed quality and flexibility in end use performance.

Application Areas

Spray foam onto clean, dry surface in any direction to insulate. It is specifically designed to coat flat or irregular surfaces. Handi Foam Commercial Vehicle is black in color and is used in the Commercial Vehicle Industry. The foam easily blends in with undercarriages of RVs and other vehicles while helping to reduce vibration and deaden sound.

Properties

Two-component froth foam systems will begin to cure immediately upon chemical reaction of A component (a polymeric isocyanate) and B component (a polyol blend containing certain additives). The foam will cure to a semi-rigid closed cell foam.

Handi-Foam Commercial Vehicle Foam fully expands and dries tack-free within 30-45 seconds and fully cures within 1 hour.

Handi-Foam Commercial Vehicle Refill Systems adhere 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 application temperature is 75°F (24°C) but may be sprayed onto colder or warmer substrates, with slight effects on the foam characteristics. Cured foam is resistant to heat and cold, -200 to +240°F (-129 to +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), CPVC or other plastic. It is approved for use around wires, plumbing penetrations, etc., and contains no formaldehyde. When sprayed, the foam will create a seamless, continuous seal to insulate and protect against dust, air infiltration and pests.

Preparation For Use

Substrate must be clean, dry, firm, free of loose particles and free of dust, grease and mold release agents. Protect surfaces not to be foamed. Read operating instructions before using. Be sure to adjust tank pressures to recommended setting value.

Application/Use

After following instructions for set-up, tanks are ready to use. Attach appropriate hose to tanks A or B. Open tank valves as directed. Materials are dispensed through the hoses and mixed in the disposable nozzle.

With a nozzle attached to the Handi-Gun, dispense foam by squeezing the trigger of the unit. To interrupt or stop the foaming process, release the gun trigger. Once the foaming process has stopped, the dispensing unit must be reactivated within 30 seconds or a new nozzle **must** be installed.

Important Note: Use only in well ventilated areas or with certified respiratory equipment. 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.

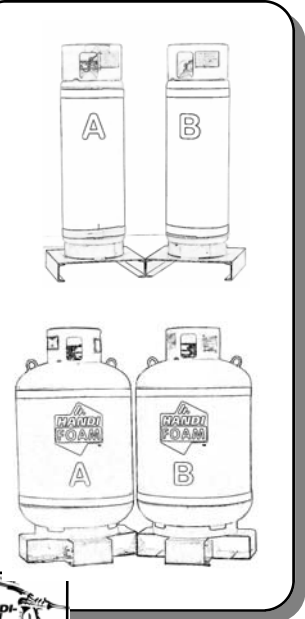
KEEP OUT OF REACH OF CHILDREN.

Product Storage

Store at temperatures between 75 - 85°F (24 - 29°C). 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. Follow operating instructions for storage and reuse.

For optimum results, chemical temperature must be between 75 - 85°F (24 - 29°C). During colder months it may take 2-3 days to warm the chemicals to optimum temperature. In hotter months it may take a full day to cool tanks to optimum temperature. A temperature controlled "hot box" is recommended for all applications in order to store the refill systems at a consistent, controlled temperature prior to and during use.

Warranted shelf life is six (6) months from date of manufacture.



Fomo Products, Inc.

A Member of the FLM Group of Companies
management system registered to ISO 9001:2000



2775 Barber Road PO Box 1078 Norton, Ohio 44203 USA

p: 1 330.753.4585 1 800.321.5585 f: 1 330.753.5199

e: info@fomo.com w: www.fomo.com

Technical Data

(Metric data shown in parentheses)	Standard Density 1.75 lbs/ft ³
DENSITY ASTM D-1622	1.70 +/- 0.2 lbs/ft ³ (28 kg/m ³)
K-FACTOR ASTM C-518 (28 day aging)	.181 BTU-inch / ft ² ·h·°F
R-VALUE	5.5 +/- 0.2 inch
PERM RATING ASTM E-96 1" (2.54 cm) 3" (7.62 cm)	Testing Underway
COMPRESSIVE STRENGTH ASTM D-1621 Parallel @ 10% Perpendicular @ 10%	8 psi (55 kPa)
DIMENSIONAL STABILITY ASTM D-2126 Heat age +158°F (70°C) Humid age +158°F (70°C), 100% RH Cold age -4°F (-20°C)	-1.03% -5.43% -0.60%
CLOSED CELL CONTENT ASTM D-2856	>90%
TACK-FREE / EXPANSION TIME	30-45 seconds
CUTTABLE	1 minutes
FULLY CURED	1 hour

Approvals / Standards

Handi-Foam package is patented under U.S. patent # 6,182,868.

Dispensing gun is patented under U.S. patent #6,345,776. Other foreign and domestic patents pending.

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

VOC Content: Contains no VOC's, according to currently accepted definitions.

Theoretical Yield*

System	Board Feet	Cubic Feet
System 17 Product No. 22040	1980 bd ft	165 ft ³ (4.7 m ³)
System 27 Product No. 22240	3120 bd ft	260 ft ³ (7.4 m ³)
System 60 Product No. 22440	6840 bd ft	570 ft ³ (16.1 m ³)
System 100 Product No. 22640	11400 bd ft	950 ft ³ (26.9 m ³)

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

Tank Specifications (Per Tank)

	Systems 17 & 27	Systems 60 & 100
Capacity	27 gal (102 l)	120 gal (454 l)
Dimensions		
Height	54" (137 cm)	61" (155 cm)
Diameter	15" (38 cm)	30" (76 cm)
Base	20" x 20" (51 cm x 51 cm)	30" x 30" (76 cm x 76 cm)
Empty Weight	120 lbs (54 kg)	360 lbs (163 kg)
Filled Weight*	System 17: 265 lbs (120 kg) System 27: 350 lbs (159 kg)	System 60: 860 lbs (390 kg) System 100: 1190 lbs (540 kg)

*Filled tank weights are approximate for estimation purposes only. Actual gross weight is formulation specific and may be slightly higher or lower.

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. (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 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 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.



Two-Component Commercial Vehicle Spray Foam Refill Systems

Fomo Products, Inc. p: 1 330.753.4585, 1 800.321.5585 f: 1 330.753.5199
e: info@fomo.com www: fomo.com