

# TECHNICAL DATA SHEET

FOR PROFESSIONAL USE ONLY



Commercial Vehicle Spray Foam Refill Systems



**Handi-Foam® Commercial Vehicle Spray Foam Refill Systems** utilizes a non-flammable blowing agent. Handi-Foam® Commercial Vehicle Spray Foam is black in color and is used in the Commercial Vehicle Industry.

## Application Areas

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

## Properties

Two-component froth foam systems will expand immediately upon chemical reaction of A component (isocyanate) and B component (a polyol blend) to a final volume that is 2 to 3 times the dispensed volume, in typical applications, depending on various factors such as cavity size and ambient conditions. The foam will cure to a semi-rigid closed cell foam.

Handi-Foam® Commercial Vehicle Spray Foam fully expands and dries tack-free within 30-45 seconds, is cuttable in 2-5 minutes, and fully cures within 1 hour.

Handi-Foam® Commercial Vehicle Spray 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 application temperature is 75°F- 85°F (24°C-29°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°F to +240°F (-129°C to +116°C), and to aging, but not UV rays (i.e. sunlight) unless painted, covered or coated. Cured polyurethane 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-Foam® Commercial Vehicle Spray Foam Refill Systems are available in four refillable tank sizes for large construction applications, assembly line filling, or any unique application that requires a balance between quality and affordability. When sprayed, the foam will create a seamless, continuous seal to insulate and protect against dust, air infiltration and pests.

## Physical Properties

See technical data table on the second page.

## 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 the enclosed operating instructions available in every A-tank collar or they can be found on our website [www.fomo.com](http://www.fomo.com). Carefully read all cautions, warnings, and MSDS before use. Always refer to the local building codes before application of product.

## Use

Warm tanks to 75°F-85°F (24°C-29°C). After following instructions for set-up attach appropriate hose to tanks A and B. Open tank valves as directed. Materials are dispensed through the hoses. Attach the static cone or fan nozzle to the end of the dispensing unit. The A-component and the B-component meet and mix in the disposable nozzle. With a nozzle attached to the two-component froth dispensing unit, dispense foam by squeezing the trigger of the unit. To interrupt or stop foaming process, release the

trigger. Once foaming process has stopped, the dispensing unit must be reactivated within 30 seconds or a new nozzle **must** be installed. Fresh foam may be applied in several stages to reduce overfilling of void or damage to non-rigid, confined cavities. Cured foam can only be removed manually.

**Important Note:** Use only in well-ventilated area with certified respiratory protection or a powered air purifying respirator (PAPR). Wear protective glasses or goggles, nitrile gloves, and clothing that protects against dermal exposure. Read all instructions and safety information (MSDS) prior to use of any product. The MSDS can be found on [www.fomo.com](http://www.fomo.com). The product contains no formaldehyde. Cured foam is non-toxic. The urethane foam produced from these ingredients will support combustion and may present a fire hazard if exposed to a fire or excessive heat about 240°F (116°C).

**KEEP OUT OF REACH OF CHILDREN.**

## Product Storage

Store tanks at 75°F- 85°F (24°C-29°C). Do not expose the tanks to open flame or temperatures above 120°F (49°C). Excessive heat can cause premature aging of components resulting in a shorter shelf life.

**Cold Weather Note:** For best results, foam chemical temperature must be between 75°F-85°F (24°C-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.

Construction of 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.

Using a Magnum™ Heated System improves temperature control.

## Return Procedures

The tanks are shipped back to Fomo, cleaned, refilled, and redistributed. Return instructions are included in the collar of the refill tanks.

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



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## Technical Data

### Commercial Vehicle (Metric data shown in parentheses)

<b>DENSITY</b> ASTM D1622	1.70lb/ft <sup>3</sup> (28 kg/m <sup>3</sup> )
<b>K-FACTOR</b> ASTM C518 - aged 28 day value	0.181 BTU·inch / ft <sup>2</sup> ·h·°F
<b>R-VALUE</b>	5.5/ inch
<b>AIR BARRIER PROPERTIES</b> ASTM E283 @1.57 psf (75 Pa) @6.24 psf (300 Pa)	<0.0025 cfm/ft <sup>2</sup> (<0.0125 L/s/m <sup>2</sup> ) <0.01 cfm/ft <sup>2</sup> (<0.05 L/s/m <sup>2</sup> )
<b>PERM RATING</b> ASTM E96-Method A 1" (2.54 cm)	1.80 (108 ng/(m <sup>2</sup> ·Pa·s))
<b>COMPRESSIVE STRENGTH</b> ASTM D1621 Parallel @ 10%	8 lbf/in <sup>2</sup> (55 kPa)
<b>DIMENSIONAL STABILITY</b> ASTM D2126 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%
<b>CLOSED CELL CONTENT</b> ASTM D2856	>90%
<b>TACK-FREE / EXPANSION TIME</b>	30 - 45 seconds
<b>CUTTABLE</b>	1 minute
<b>FULLY CURED</b>	1 hour
<b>FIRE RATING</b> ASTM E84 Tested at 1" thickness	Flame Spread Index = 15 Smoke Developed =195

## Approvals / Standards

Handi-Foam Commercial Vehicle Spray Foam Systems conforms to the requirements of ASTM E84 as a "Class 1" material. Tested at 1" thickness  
Flame Spread 15 Smoke Developed 195

Contains a non-flammable HFC propellant.

## Theoretical Yield\*

Refillable Tanks	Board Feet	Cubic Feet
System 17 P22040	1980 (184 m <sup>2</sup> )	165ft <sup>3</sup> (4.7 m <sup>3</sup> )
System 27 P22240	3120 (290 m <sup>2</sup> )	260ft <sup>3</sup> (7.4 m <sup>3</sup> )
System 60 P22440	6840 (635 m <sup>2</sup> )	570ft <sup>3</sup> (16.1 m <sup>3</sup> )
System 100 P22640	11400 (1059 m <sup>2</sup> )	950ft <sup>3</sup> (26.9 m <sup>3</sup> )

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

## Processing Parameters

Product Storage*	<120°F (49°C)	Store in a cool dry area
Application Temperature	40°F (5°C)- 120°F (49°C)	For best results
Chemical Temperature	75-85°F (24-29°C)	

\*For best results use a temperature controlled "hot box" to maintain the chemical temperature. Bringing the system up/down to temperature improves results.

## Tank Specifications (Per Tank)

	Systems 17 & 27	Systems 60 & 100
<b>Dimensions</b>	<b>Height</b> 54" (137 cm)	61" (155 cm)
	<b>Diameter</b> 15" (38 cm)	30" (76 cm)
	<b>Base</b> 20 x 20" (51 cm x 51 cm)	30 x 30" (76 cm x 76 cm)
<b>Empty Weight</b>	120 lbs (54 kg)	360 lbs (163 kg)
<b>Filled Weight*</b>	System 17: 265 lbs (120 kg)	System 60: 860 lbs (390 kg)
	System 27: 350 lbs (159 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.** 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, Inc. 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](http://www.fomo.com) 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 in a well ventilated area and with certified respiratory protection. NIOSH approved positive pressure supplied air respirator is recommended if exposure guidelines may be exceeded (see MSDS). 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. Do not induce vomiting. If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration. 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 pur-



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