

HANDIFOAM® CONCRETE LIFT

LOW PRESSURE SPRAY POLYURETHANE FOAM

TECHNICAL DATA SHEET



FEATURES & BENEFITS

HandiFoam® Concrete Lift low pressure spray polyurethane foam is a two-component system specifically designed for applications where a high compressive strength foam is required. It is designed for lifting and stabilization of sidewalks, driveways and concrete pads. It is an ideal solution for small to medium size projects and remote areas.

PREPARATION

Always check the local building code before use. Substrate must be free of standing water and excessive moisture. Concrete should be protected at injection port and any cracks, joints or penetrations. Read SDS, Operating Instructions, and Product Stewardship Guidelines. For additional information go to www.handifoam.com.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Recommend using in a well-ventilated area with certified respiratory protection or a powered air purifying respirator (PAPR). Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Read all instructions and SDS (Section 8) prior to use of any product.



PRODUCT STORAGE & DISPOSAL

Store in a dry area. Do not expose the cylinders to open flame or temperatures above 90°F (32°C). Excessive heat can cause premature aging of components resulting in a shorter shelf-life. Refer to SDS (Section 13) for instructions. Always dispose of empty cylinders according to applicable federal, state, provincial and local regulations.

COMPATIBILITY

Cured low pressure polyurethane foam is chemically inert and non-reactive in approved applications, and will not harm electrical wire insulations, extruded polystyrene foams, Romex®, rubber, PVC, polyethylene (i.e. PEX) or other plastics. The product is not resistant to UV rays; if left exposed the product should be coated or painted. FOR PROFESSIONAL USE ONLY.

TECHNICAL DATA	STANDARD	RESULTS
Density	ASTM D1622	
Free Rise		3.10 lbs/ft ³ (50.0 kg/m ³)
Tack-Free/Expansion Time		30-60 seconds
Cuttability		2-5 minutes
K-Factor	ASTM C518	
Initial		0.164 BTU·inch/ft ² ·h·°F
R-Value	ASTM C518	
Initial		6.5 at 1" thickness
Aged 90 days @ 140°F (60°C)		5.2 at 1" thickness
Air Barrier Properties @ 1.57 psf (75 Pa)	ASTM E283 – Modified	<0.003 cfm/ft ² (<0.0152 L/s/m ²)
Perm Rating	ASTM E96 – Method A	
1" Thick (2.54 cm)		1.37 perms - Class III Vapor Retarder
2" Thick (5.08 cm)		1.19 perms - Class III Vapor Retarder
Closed-Cell Content	ASTM D2856	95%
Fungi Resistance	ASTM G21	No growth
Compressive Strength	ASTM D1621	Parallel: 40 lbf/in ² (275 kPa)
Tensile Strength	ASTM D1623	40 lbf/in ² (276 kPa) Parallel
Dimensional Stability	ASTM D2126 (% vol. change)	+/- 5%
Water Vapor Transmission	ASTM E96	
1" Thick (2.54 cm)		0.39 g/hr·m ²
2" Thick (5.08 cm)		0.34 g/hr·m ²
VOC Content	EPA Method 24 (calculated)	<25 g/L (when mixed as intended)



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Fire Rating			
Class A - Tested at 2" Thickness	ASTM E84	Flame Spread: 15	Smoke Developed: 450
Fungi Resistance	ASTM G21	No growth	

APPROVALS / STANDARDS / CLASSIFICATIONS

ASTM E84	Conforms to the requirements of ASTM E84 and is classified as a Class 1 (A) material. Tested at 2" thickness.
BABAA, BAA & TAA	HandiFoam® products are proudly manufactured in compliance with the Build America, Buy America Act (BABAA), Buy American Act (BAA), and Trade Agreement Act (TAA) to deliver trusted, code-compliant performance.

TEMPERATURE GUIDELINES

Product Chemical Temperature	75-85°F (24-29°C)
Chemical Storage Temperature	Optimum 75-85°F (24-29°C) but not <60°F (16°C) or >90°F (32°C)
Outside Application Temperature	40-100°F (4-38°C)
Surface (Substrate) Temperature	40-100°F (4-38°C)
Cured Foam	-200 to +240°F (-129 to +116°C)

MAXIMUM THEORETICAL YIELD¹ (3.10 lbs/ft³ Free Rise Density)

DISPOSABLE ITEM NUMBER	WEIGHT	BOARD FEET	CUBIC FEET	LINEAR FEET 1" BEAD	LINEAR FEET 2" BEAD
P12037 II-115	41 lbs (18.6 kg)	115 ft ² (10.7 m ²)	9.6 ft ³ (0.27 m ³)	1,768 ft	442 ft

¹Yield is based on free-rise density. We state our core density/free-rise density when describing the foam. Applying foam into a cavity may result in higher in-place densities due to packing effects. These higher densities may result in lower yields.

²Average Gross Weight

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. Yields shown are optimum and will vary slightly depending on ambient conditions and application. This information supersedes all previously published data. The customer is responsible for deciding whether products and associated TDS information are appropriate for customer's use.

WARNING: HandiFoam® low pressure one-component polyurethane foam sealants and adhesives (OCF), low pressure spray polyurethane foams and foam adhesives (SPF), and low pressure pour-in-place polyurethane foams (PIP) are composed of diisocyanate, hydrofluorocarbon, hydrocarbon, hydrofluoroolefin or hydrochlorofluoroolefin blowing agent, and a polyol blend. 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). Read all instructions, ICP Product Stewardship Guidelines and SDS (Section 8) prior to use of any product. **FOR PROFESSIONAL USE ONLY.**

Before using any OCF, SPF or PIP product, read the SDS and instructions carefully before use (www.handifoam.com). OCF Products: wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Recommend using in a well-ventilated area. Avoid breathing vapors. SPF/PIP Products: wear protective glasses with side shields or goggles unless using a full-face respirator, nitrile gloves, and clothing that protects against dermal exposure. Recommend dispensing product in a well-ventilated area and with certified respiratory protection or a powered air purifying respirator (PAPR); however, well ventilated exterior applications may not need respiratory protection. It is the responsibility of the employer to complete a PPE evaluation and/or exposure assessment to determine if respiratory protection is required. Personal Protective Equipment can be purchased through ICP Group by ordering the Contractor Safety Kit (F65251). The Contractor Safety Kit includes: nitrile gloves, contractor safety glasses, and a size Medium NIOSH-approved negative pressure half mask respirator.

Refer to each product's TDS for specifications, testing results, and other attributes. The customer is ultimately responsible for deciding whether products and associated TDS information are appropriate for customer's use. For professional use only. Building practices unrelated to materials can lead to potential mold issues. Material suppliers cannot provide assurance that mold will not develop in any specific system. Product uses a non-flammable compressed gas. Keep away from heat. Smoking and open flames, including hot work, should be prohibited in the vicinity of a foaming operation. Avoid contact with skin and eyes. May cause sensitization by inhalation and/or direct skin contact. Persons previously sensitized to Isocyanates may develop a cross-sensitization reaction to other isocyanates. Avoid prolonged or repeated breathing of vapor. 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 ICP Group of all liability with respect to the materials or the use thereof. For additional information and location of your nearest distributor, call ICP Group 330-753-4585.

LIMITED WARRANTY AND LIMITATION OF DAMAGES: ICP Group warrants only that the product shall meet ICP Group's specifications for the product when shipped by ICP Group. NO OTHER EXPRESSED OR IMPLIED WARRANTIES APPLY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OUTSIDE THE U.S. AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. Buyer and users assume all risks of use, handling, and storage of the product. Failure to strictly adhere to any recommended procedures shall release ICP Group from all liability. The user of the product is responsible to determine suitability of the product for the particular use. The exclusive remedy as to any breach of warranty, negligence or other claim is limited to the replacement of the product. Liability for any indirect, incidental, or consequential damage or loss is specifically excluded.

CYLINDER WARRANTY STATEMENT: ICP Group warrants that the cylinder is fit to dispense ICP Group foam products that are loaded into the cylinder by ICP Group. The sole remedy for any breach of warranty is replacement of the cylinder. NO OTHER EXPRESSED OR IMPLIED WARRANTIES APPLY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OUTSIDE THE U.S. AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. The terms, conditions, and warranties applicable to ICP Group's products dispensed from the cylinder are covered in other ICP Group documentation relating to that purchase. Liability for any indirect, incidental, or consequential damage or loss specifically excluded. Buyer must not make any changes to the cylinder or the cylinder components, including plumbing. Any such change may produce dangerous results and cause damage or injury, including a loss of product stored in the cylinder. ICP Group is not responsible for damages or injuries resulting from any such changes. Those damages or injuries are Buyer's responsibility, and ICP Group may charge Buyer for the costs of any resulting cylinder damage or repairs. ICP Group also reserves the right to restrict future sales if the Buyer does not address safety concerns such as modified or missing plumbing, pressure relief valve activated or excessive cylinder pressure.

HEATED HOSE WARRANTY STATEMENT: See the hose manufacturer's warranty regarding any warranty applicable to the hose. ICP Group makes no warranty regarding the hose, and it is sold "AS IS" and ALL EXPRESSED AND IMPLIED WARRANTIES ARE EXPRESSLY DISCLAIMED. Liability for any indirect, incidental or consequential damage or loss is specifically excluded.

