




# TECHNICAL DATA SHEET

## HANDI-FOAM® CHANNEL FILL EF REFILL SYSTEM



### LOW PRESSURE POLYURETHANE FOAM INFORMATION

<b>Description</b>	Low pressure, medium density, two-component pour-in-place (PIP) polyurethane foam system
<b>Applications</b>	Designed to fill cavities, hollow tubing, framing, channels, or casings
<b>Preparation for use</b>	Cavity must have minimal obstructions and have no existing insulation. Before using, determine the structural stability of the cavity walls, certain applications may require clamping or bracing to provide uniform support against foaming pressure.
<b>Use</b>	Warm/Cool cylinders to 75-85°F (24-29°C). Follow instructions for set-up found in the operating instructions.
<b>PPE</b>	 <p>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 prior to use of any product.</p>
<b>Note</b>	FOR PROFESSIONAL USE ONLY. Always check the local building code before use. Cured foam is inert and non-toxic.
<b>Product Storage</b>	See Temperature Chart on page 2
<b>Temperature</b>	See Temperature Chart on page 2
<b>Return Instructions</b>	Refer to SDS (Section 13) for instructions. The cylinders are shipped back to ICP Adhesives & Sealants, Inc., cleaned, refilled and redistributed. Return instructions can be found in the collar or on the side of the A-cylinder.
<b>Shelf-life</b>	System 8- 6 months; System 60 & System 120- 3 months
<b>Compatibility</b>	Cured low pressure 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 plastics. The product is not resistant to UV rays, if left exposed the product should be coated or painted.

### TECHNICAL DATA

### STANDARD

### RESULTS

<b>Density Core</b>	ASTM D1622	2.0 lbs/ft <sup>3</sup> (33.7 kg/m <sup>3</sup> )
<b>K-factor- Aged 90 days 140°F (60°C)</b>	ASTM C518	.145 BTU·inch/ft <sup>2</sup> ·h·F
<b>R-Value- Aged 90 days 140°F (60°C)</b>	ASTM C518	6.9 at 1 inch thickness
<b>Compressive Strength</b>	ASTM D1621	23 lbf/in <sup>2</sup> (173 kPa)
<b>Fungi Resistance</b>	ASTM G21	No Growth
<b>Dimensional Stability</b>	ASTM D2126	+/- 5%
<b>Gel Time</b>		2-3 minutes
<b>Tack-Free/Expansion Time</b>	Tack-Free/Expansion Time	4-5 minutes
<b>Closed-Cell Content</b>	ASTM D2856	>90%
<b>Cutable</b>		60-90 minutes
<b>Perm Rating-Method A</b>	ASTM E96	.71 perm @ 2 inch thickness
<b>Fire Rating- Tested at 6" thickness With 3/16" steel tubes/channels.</b>	ASTM E84	Flame Spread Index 0 Smoke Developed 85

### APPROVALS/STANDARDS/CLASSIFICATIONS

<b>ASTM E84</b>	Testing is specific for application. Testing was conducted at foam thickness of 6 inches and surrounding metal channel was 3/16" thick.
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**TEMPERATURE**

<b>Chemical Storage Temperature</b>	Optimum 75-85°F (24-29°C) but not <60°F (16°C) or >90°F (32°C)
<b>Outside Application Temperature</b>	40-100°F (4-38°C)
<b>Process Core Chemical Temperature</b>	75-85°F (24-29°C) Warm/Cool cylinders for a minimum of 1 day prior to use
<b>Surface Temperature (Substrate)</b>	40-100°F (4-38°C)
<b>Cured Foam</b>	-200°F to +240°F (-129°C to +116°C)

**YIELD<sup>1</sup>**

	<b>Weight<sup>2</sup></b> (Per Cylinder)	<b>Density 2.0</b>	<b>Density 2.25</b>	<b>Density 2.5</b>	<b>Density 2.75</b>	<b>Empty Cylinder Weight</b>
<b>System 8 P77014</b>	96.5 lbs (44 kg)	73.5 ft <sup>3</sup> (2.1 m <sup>3</sup> )	65.3 ft <sup>3</sup> (1.8 m <sup>3</sup> )	58.8 ft <sup>3</sup> (1.7 m <sup>3</sup> )	53.5 ft <sup>3</sup> (1.5 m <sup>3</sup> )	23lbs (10.4 kg)
<b>System 60 P77400</b>	725 lbs (329 kg)	520 ft <sup>3</sup> (14.7 m <sup>3</sup> )	462.2 ft <sup>3</sup> (13.1 m <sup>3</sup> )	416 ft <sup>3</sup> (11.8 m <sup>3</sup> )	378.2 ft <sup>3</sup> (10.7 m <sup>3</sup> )	205 lbs (93 kg)
<b>System 120 P77800</b>	1278 lbs (580 kg)	950 ft <sup>3</sup> (26.9 m <sup>3</sup> )	844.4 ft <sup>3</sup> (23.9 m <sup>3</sup> )	760 ft <sup>3</sup> (21.5 m <sup>3</sup> )	690.9 ft <sup>3</sup> (19.6 m <sup>3</sup> )	328 lbs (149 kg)
		<b>Density 3.0</b>	<b>Density 3.25</b>	<b>Density 3.5</b>	<b>Density 3.75</b>	
<b>System 8 P77014</b>	96.5 lbs (44 kg)	49 ft <sup>3</sup> (1.4 m <sup>3</sup> )	45.2 ft <sup>3</sup> (1.3 m <sup>3</sup> )	42 ft <sup>3</sup> (1.2 m <sup>3</sup> )	39.2 ft <sup>3</sup> (1.1 m <sup>3</sup> )	23lbs (10.4 kg)
<b>System 60 P77400</b>	725 lbs (329 kg)	346.7 ft <sup>3</sup> (9.8 m <sup>3</sup> )	320 ft <sup>3</sup> (9.1 m <sup>3</sup> )	297.1 ft <sup>3</sup> (8.4 m <sup>3</sup> )	277.3 ft <sup>3</sup> (7.8 m <sup>3</sup> )	205 lbs (93 kg)
<b>System 120 P77800</b>	1278 lbs (580 kg)	633.3 ft <sup>3</sup> (17.9 m <sup>3</sup> )	584.6 ft <sup>3</sup> (16.5 m <sup>3</sup> )	542.8 ft <sup>3</sup> (15.4 m <sup>3</sup> )	506.7 ft <sup>3</sup> (14.3 m <sup>3</sup> )	328 lbs (149 kg)

<sup>1</sup> Yield is based on density. We state our core density when describing the foam. A typical product application is to inject the foam into a mold, channel, or pipe, etc. Injection of foam into a cavity may result in higher in-place densities due to packing effects. These higher densities may result in lower yields.

<sup>2</sup> Average Gross Weight

**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 ICP Adhesives & Sealants, Inc. of all liability with respect to the materials or the use thereof. For additional information and location of your nearest distributor, call ICP Adhesives & Sealants 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. The Customer is responsible for deciding whether products and associated TDS information are appropriate for customer's use.

ICP low pressure one-component polyurethane foam sealants and adhesives (OCF), low pressure spray polyurethane foams (SPF), and low pressure pour-in-place polyurethane foams (PIP) are composed of a diisocyanate, hydrofluorocarbon or hydrocarbon blowing agent, and polyol. For polyurethane foam sealants/adhesives: 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. Read the SDS and instructions carefully before use ([www.icpadhesives.com](http://www.icpadhesives.com)). For spray polyurethane foams and pour-in-place polyurethane foams: wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Use only in a well-ventilated area and with certified respiratory protection or a powered air purifying respirator (PAPR). Additional information on ventilation can be found in the Product Stewardship Guide ([www.icpadhesives.com](http://www.icpadhesives.com)). Read the SDS ([www.icpadhesives.com](http://www.icpadhesives.com)) and instructions carefully before use. 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). 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. Refer to the products' SDS, ICP Adhesives & Sealants' Product Stewardship Guidelines, and operating instructions for guidance on the safe and proper application of the product ([www.icpadhesives.com](http://www.icpadhesives.com)). 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.

**WARNINGS:** Follow safety precautions and wear protective equipment as recommended. 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. We recommend that the product is used 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. Contents may be very sticky and irritating to skin and eyes, therefore wear safety glasses with side shields 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 and LIMITATION OF DAMAGES:** ICP Adhesives & Sealants, Inc. warrants only that the product shall meet ICP Adhesives & Sealants, Inc. specifications for the product when shipped by ICP Adhesives & Sealants, Inc. 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 Adhesives & Sealants, Inc. 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 Adhesives & Sealants, Inc. warrants that the cylinder is fit to dispense ICP Adhesives & Sealants, Inc.'s foam products that are loaded into the cylinder by ICP Adhesives & Sealants, Inc. 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 Adhesives & Sealants, Inc.'s products dispensed from the cylinder are covered in other ICP Adhesives & Sealants, Inc. 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 Adhesives & Sealants, Inc. is not responsible for damages or injuries resulting from any such changes. Those damages or injuries are Buyer's responsibility, and ICP Adhesives & Sealants, Inc. may charge Buyer for the costs of any resulting cylinder damage or repairs. ICP Adhesives & Sealants, Inc. 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.

### Magnum Heated Hose Warranty Statement

**See the hose manufacturer's warranty regarding any warranty applicable to the hose.** ICP Adhesives & Sealants, Inc. 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.



2775 Barber Road | Norton, OH 44203  
330-753-4585 | [icpadhesives.com](http://icpadhesives.com)

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WITH GLOBALLY SOURCED MATERIALS