




# TECHNICAL DATA SHEET

## HANDI-FOAM® FIREBLOCK SEALANT



### LOW PRESSURE POLYURETHANE FOAM SEALANT INFORMATION

<b>Description</b>	Low pressure, one-component, polyurethane foam sealant
<b>OCF</b>	One Component Foam
<b>Applications</b>	Designed to seal/fireblock penetrations between rooms and floors. Effective at blocking smoke and toxic gases. The product is for use in Type V residential penetrations. Fireblock sealants are not intended for hourly rated assemblies.
<b>Preparation for use</b>	Substrate must be clean, dry, free of loose particles, and free of dust, grease and mold release agents.
<b>Use</b>	Optimal product temperature is 65-80°F (18-27°C). <b>Gun foam option:</b> attach the container to the dispensing unit (Handi-Tool), shake well, and begin dispensing. The dispensing units can be metered by pulling the dispensing unit trigger for the desired rate, or with the metering screw located in the back. Foam application can be interrupted when needed as outlined in the instructions and the dispensing unit will be ready for immediate re-use, as long as it remains attached to a pressurized container. An empty gun foam container must be replaced with a new container. <b>Straw foam option:</b> attach the straw, shake well, invert the container, and begin dispensing. By activating the adapter lever carefully, the extrusion rate can be regulated.
<b>PPE</b>	 <p>Recommend using only in a well-ventilated area. Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Read all instructions and safety information prior to use. Consult the product's SDS (available at <a href="http://www.icpadhesives.com">www.icpadhesives.com</a>).</p>
<b>Note</b>	FOR PROFESSIONAL USE ONLY. Always check the local building code before use. Cured low pressure polyurethane foam is non-toxic and inert.
<b>Product Storage</b>	Store upright in a dry area. Do not expose the product to open flame or temperatures above 122°F (50°C). Excessive heat can cause premature aging of components resulting in a shorter shelf-life.
<b>Temperature</b>	For best results, chemical temperature must be between 65-80°F (18-27°C). Cured foam is resistant to heat and cold, -200°F to 240°F (-129°C to 116°C).
<b>Disposal</b>	Refer to SDS (Section 13) for instructions. Do not incinerate containers. Relieve containers of any remaining pressure and foam before discarding. Always wear PPE during the disposal process and make sure discarded foam is fully cured.
<b>Shelf-life</b>	15 months (expiration date located on the bottom of the container)
<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 –Gun Foam</b>	ASTM D1622	1.00 lbs/ft <sup>3</sup> (16 kg/m <sup>3</sup> )
<b>Density-Straw Foam</b>		1.10 lbs/ft <sup>3</sup> (17.6 kg/m <sup>3</sup> )
<b>K-factor</b>	ASTM C518	0.222 BTU·inch/ft <sup>2</sup> ·h·°F
<b>R-Value</b>	ASTM C518	4.50 per Inch
<b>Air Barrier Properties</b>		
@1.57 psf (75 Pa)	ASTM E2178	<0.00028 cfm/ft <sup>2</sup> (<0.0014 L/s/m <sup>2</sup> )
<b>Compressive Strength</b>	ASTM D1621	6.38 psi (43.9 kPa)
<i>Parallel to rise</i>		
<b>Tensile Strength</b>	ASTM 1623	12 psi (83 kPa)
<i>Parallel to rise</i>		
<b>Dimensional Stability</b>	ASTM D2126	+/- 5%
<b>Tack-Free</b>	Tack-Free	Approx. 5 minutes

**TECHNICAL DATA (Continued)**

<b>Closed-Cell Content</b>	ASTM D6226	77%
<b>Cutttable</b>		1 hour
<b>Fire Rating- Caulking &amp; Sealant</b> Tested 3 beads @ 3/4" Thickness	CAN/ULC S102	Flame Spread Index 25 Smoke Developed 50
<b>Fire Rating- Caulking &amp; Sealant</b> Tested 3 beads @ 3/4" Thickness	ASTM E84/UL 723	Flame Spread Index 25 Smoke Developed 50
<b>Fire Rating</b>	ASTM E814-Modified	Alternative for maintaining the integrity of penetrations of fireblocking
<b>NFPA 286</b>	Tested to allow for the use of Handi-Foam Fireblock to be used without a thermal barrier when the maximum width must not exceed 1 7/16 inches and the nominal foam thickness must not exceed 1 1/2 inches. The maximum area of exposed sealants must not exceed 18 sq in per sq ft	

**APPROVALS/STANDARDS/CLASSIFICATIONS**

<b>ASTM E84/UL 723</b>	UL Classified File #R13919
<b>CAN/ULC S102</b>	ULC Classified File #R13919
<b>CCMC</b>	CCMC #13626-L
<b>NFPA 30B</b>	Level 2 Aerosol
<b>VOC Content (calculated)</b>	165 g/L or 16%
<b>UL Evaluation Report</b>	ER13919-01
<b>ULe GREENGUARD</b>	Gold

**TEMPERATURE**

<b>Product Storage</b>	<122°F (50°C)
<b>Application</b>	40-100°F (5-38°C)
<b>Chemical</b>	65-80°F (18-27°C)
<b>Cured Foam</b>	~200°F to ~240°F (~129°C to ~116°C)

**YIELD<sup>1</sup> in Linear Feet (Meters)**

	<b>1/4" (6.3 mm)</b>	<b>3/8" (9.5mm)</b>	<b>1/2" (12.7mm)</b>	<b>Volume</b>
<b>12oz (340g) Straw Foam P30033</b>	1996 ft (608 m)	887 ft (270 m)	499 ft (152 m)	.68 ft <sup>3</sup> (19 L)
<b>24oz (680g) Straw Foam P30192</b>	3992 ft (1217 m)	1774 ft (541 m)	998 ft (304 m)	1.36 ft <sup>3</sup> (39 L)
<b>24oz (680g) Gun Foam P30181</b>	4403 ft (1342 m)	1957 ft (596 m)	1101 ft (336 m)	1.50 ft <sup>3</sup> (42 L)

<sup>1</sup> Yield is based on density. We state our core density when describing the foam. We use theoretical calculations for comparative purposes so the results will vary depending on ambient conditions and use in particular applications.

**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.