TECHNICAL DATA SHEET

HVLP LOW DENSITY DRUM SYSTEM

LOW PRESSURE POLYURETHANE FOAM INFORMATION

Description	Low density, open-cell, two-component spray polyurethane foam
SPF	Spray Polyurethane Foam
Applications	Designed to be used in residential construction and common commercial insulation applications
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. For additional information go to www.icpadhesives.com
Use	Condition chemical to 75-85°F (24-29°C). Follow instructions for set-up found in the operating instructions. HVLP LOW DENSITY can be used with high pressure and High volume low pressure dispensing systems. Must be processed with HandiFoam HVLP A-side and HandiFoam HVLP LOW DENSITY B-side. Application rate of ½ inch to 6 inches maximum per pass. Once installed and material has cooled it is possible to add additional applications in order to increase the overall installed thickness of SPF.
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.
Note	FOR PROFESSIONAL USE ONLY. Always check the local building code before use. Cured polyurethane foam is non-toxic and inert.
Temperature Guidelines	Please see chart located on page 2
Shelf-life	6 months (When stored unopen at 50-80F)
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.

TECHNICAL DATA	STANDARD	RESULTS
Density	ASTM D1622	0.5 lbs/ft^3 (8 kg/m^3)
K-factor	ASTM C518	
Aged 90 days 140°F (60°C)		0.270 BTU·inch/ft^2·h·°F at 1 inch
Aged 90 days 140°F (60°C)		0.068 BTU·inch/ft^2·h·°F at 4 inches
R-Value	ASTM C518	3.7/in at 1 inch thickness
Aged 90 days 140°F (60°C)		14.8/in at 4 inch thickness
Air Barrier Properties	ASTM E283	Meets Criteria
Dimensional Stability (% by volume)	ASTM D2126	
0.20° F		-0.10
158° F (70° C) Dry		-0.40
158° F (70° C) 100% R.T. Humidity		-0.20
Open-Cell Content	ASTM D6226	>90%
Fungi Resistance	ASTM C1338	No Growth
Tensile Strength	ASTM D1623	6.22 lbf/in2 (42.89 kPa)
Perm Rating	ASTM E96	Class III Vapor Retarder
Sound Transmission Class	ASTM E90	39
	ASTM C423	75
Bio Based Content	ASTM D6866	15%
Compressive Strength	ASTM D1621	23 lbf

VOC Content	CA 01350	Exceeds Criteria

APPROVALS/STANDARDS/CLASSIFICATIONS

NFPA 286	Appendix X Without a coating – Meets Criteria NFPA 286 With 14 mils DC-135 – Meets Criteria

TEMPERATURE GUIDELINES

Chemical Storage Temperature	Optimum 50-80°F (10-27°C); Storage outside of these ranges can shorten shelf life.
Outside Application Temperature	40-120°F (4-49°C)
Process Core Chemical Temperature	120°F (49°C)
Initial Drum Temperature	75-85F (24-29° C)
Surface Temperature (Substrate)	40-100°F (4-38°C); Lower temperatures require cold weather application techniques

YIELD[1] (0.5 Density)

	Board Feet
Includes A-side P60008A & B-side P60020B Drums **System Item # P60012**	17,000-21,000

[1] Yield 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.

EQUIPMENT SETTING GUIDELINES

HandiFoam HVLP A-side & HVLP LD B-side Foam Processing
Equipment: Nitrosys Plus
Chemical Temperature Set-Point 120°F (49°C)
Hose Temperature Set-Point 120°F (49°C)
T1 or Equivalent Transfer pump Inlet Pressure Setting 120 psi (49°C)
T2 or Equivalent Transfer pump Inlet Pressure Setting 105 psi (40°C)
T3 or Equivalent Transfer pump Inlet Pressure Setting 80 psi (27°C)

Performance and actual physical properties will vary with differences in application/process equipment. The above information is based on using HandiFoam HVLP A-side, HandiFoam HVLP LD B-side and Nitrosys Plus at the recommended process temperatures and settings. Odor level of Spray Polyurethane foam is dependent on proper application using the recommended processing parameters and proper ventilation. Large masses of SPF should be removed to an outside safe area, cut into smaller pieces, allowed to cool before being placed into a disposal container.

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 Building Solutions Group of all liability with respect to the materials or the use thereof. For additional information and location of your nearest distributor, call ICP Building Solutions Group 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.

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WITH GLOBALLY SOURCED MATERIALS

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). 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). Read the SDS (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 Building Solutions Group's Product Stewardship Guidelines, and operating instructions for guidance on the safe and proper application of the product (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.