TECHNICAL DATA SHEET

SLOW RISE LOW PRESSURE POUR-IN-PLACE FOAM

LOW PRESSURE POLYURETHANE FOAM INFORMATION

Description	Low pressure, medium density, two-component pour-in-place (PIP) polyurethane foam system
PIP	Pour-in-place designation refers to slow tack-free time, more pourable properties
Applications	Designed to fill cavities, molds, fixtures, holes, or voids. The foam can be dispensed into clean and dry voids of various size to fill, seal, insulate, provide buoyancy, strengthen, reduce vibration or deaden sound. Residential wall assemblies that use drywall or gypsum board may be prone to cracking or buckling due to either overfilling the cavity or plugging the pressure relief holes. HandiFoam Slow Rise can also be used as an SPF and sprayed onto vertical or horizontal surfaces.
Preparation for use	Area to be filled must have minimal obstructions and if used in a residential wall cavity have no existing insulation. Before using, determine the structural stability of the area to be filled, certain applications may require clamping or bracing to provide uniform support against foaming pressure. Read SDS, Operating Instructions, and Product Stewardship Guidelines. For additional information go to www.handifoam.com.
Use	Warm/Cool chemical to 75-85°F (24-29°C). Follow instructions for set-up found in the operating instructions.
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 prior to use of any product.
Note	FOR PROFESSIONAL USE ONLY. Always check the local building code before use. Cured foam is inert and non-toxic. Amount (weight) of foam needed in pounds = cavity size (ft^3) x desired density (lb/ft^3)
Temperature Guidelines	See chart located on page 2
Disposal	Refer to SDS (Section 13) for instructions. Always dispose of empty cylinders in accordance to applicable federal, state, provincial and local regulations.
Shelf-life	6 months
Compatibility	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
Density	ASTM D1622	2.1 lbs./ft^3 (35.2 kg/m^3)
Compressive Strength	ASTM D1621	23 lbf/in^2 (158.6 kPa) Parallel
Dimensional Stability	ASTM D2126	+/- 5%
Tack-Free/Expansion Time	Tack-Free/Expansion Time	60-90 seconds
Closed-Cell Content	ASTM D2856	>90%
Cuttable		5-10 minutes
Title 33	33 CFR 183.114	Meets the requirements for flotation
R- Value	ASTM C518	Initial 5.9

APPROVALS/STANDARDS/CLASSIFICATIONS

Title 33	HandiFoam Slow Rise Systems meet the specification requirements for flotation in Title 33 Code of Federal Regulations, paragraph 183.114

TEMPERATURE

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)
Process Core Chemical Temperature	75-85°F (24-29°C)
Surface Temperature (Substrate/Mold)	40-100°F (4-38°C)
Cured Foam	-200°F to +240°F (-129°C to +116°C)

YIELD[1]

	Weight (Including Packaging)	Density 2.1	Density 2.5	Density 3.0
2-12 P12042	41 lbs.	12.7 ft^3 (0.36 m^3)	10.7 ft^3 (0.30m^3)	8.9 ft^3 (0.25m^3)
2-41 P12043	115.7 lbs.	41.7 ft^3 (1.18 m^3)	35 ft^3 (0.99m^3)	29.2 ft^3 (0.83m^3)

[1]Theoretical Yield is based on 2.1, 2.5 & 3.0 pcf in-place density. Applying foam into a cavity may result in higher in-place densities due to packing effects. These higher densities may result in lower yields.

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:

ICP 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. ICP polyurethane products are 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 Building Solutions Group by ordering the Polyset® 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 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 330.753.4585.

LIMITED WARRANTY and LIMITATION OF DAMAGES: ICP Building Solutions Group warrants only that the product shall meet ICP Building Solutions Group's specifications for the product when shipped by ICP Building Solutions 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 Building Solutions 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.

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