


LOW PRESSURE POLYURETHANE FOAM INFORMATION

Description	Low pressure, two-component spray polyurethane foam adhesive
SPF	Spray Polyurethane Foam
Applications	Designed to adhere to concrete and clay roof tile onto compatible roofing underlayment surfaces.
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. Read SDS, Operating Instructions, and Product Stewardship Guidelines. For additional information go to www.icpadhesives.com .
Use	Warm/Cool chemical to 70-90°F (21-32°C). Follow instructions for set-up found in the operating instructions.
PPE	 <p>Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Recommend dispensing product in a well-ventilated area with certified respiratory protection; 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. Read all instructions, ICP Product Stewardship Guidelines, and SDS (Section 8) prior to use of any product.</p>
Note	FOR PROFESSIONAL USE ONLY. Always check the local building code before use. Cured low pressure polyurethane foam is non-toxic and inert.
Temperature	Please see chart located on page 2
Product Storage	Store in a dry area. Optimum chemical storage temperature is 50-100°F (10-38°C). Excessive heat can cause premature aging of components resulting in a shorter shelf-life. Do not allow material to freeze.
Disposal	Refer to SDS (Section 13) for instructions. Always dispose of empty cylinders in according to applicable federal, state, provincial and local regulations.
Shelf-life	12 months
Compatibility	Cured low pressure polyurethane foam is chemically inert and non-reactive in approved applications. Compatible with structural concrete, asphalt primed concrete, and insulating concrete, various BUR, base sheets, steel-22 gauge or lower, vapor retarders, gypsum, polystyrene, wood fiber, and polyisocyanurate.
Limitations	Do not use when ambient substrate temperatures are below 40°F (4°C). Do not use during inclement weather, on wet surfaces or on any roof deck showing signs of deterioration or loss of structural integrity. Do not use after the expiration date.
Additional Attachment Requirement	Additional fastening may be necessary on steep pitches. Reference installation instructions on www.icpadhesives.com .
Tile Profile	See chart located on Page 3.

TECHNICAL DATA	STANDARD	RESULTS
Density	ASTM D1622	2.1 lb/ft³
Compressive Strength	ASTM D1623	18 psi parallel 14 psi perpendicular
Tensile Strength	ASTM D412	29 psi
Water Absorption	ASTM D2842	0%
Moisture Vapor Transmission	ASTM E96	1.7 perms (Water Method) 2.3 perms (Desiccant Method)
Dimensional Stability	ASTM D2126	At -40°F (4°C) +0.12% At 158°F (70°C) +6.0%
Closed Cell Content	ASTM 2856	94%

APPROVALS/STANDARDS/CLASSIFICATIONS

Class A Rated, ASTM E108

Florida Product Approval

Miami Dade NOA



TEMPERATURE GUIDELINES

Chemical Storage Temperature	50-100°F (10-38°C)
Outside Application Temperature	40-100°F (4-38°C)
Process Core Chemical Temperature	70-90°F (21-32°C)
Surface Temperature (Substrate)	40-100°F (4-38°C)

PROPERTIES AND YIELD¹

	Weight (Including packaging)	Coverage (30-gram medium paddy)	Open Time	Work Life in Mixing Nozzle	Time to Full Cure
P10110	45.3 lbs / A component 40 lbs / B component	1295	1 – 2 minutes ¹	1 minute ¹	24 - 48 hours
P10111	14 lbs / A component 12.5 lbs / B component	400	1 – 2 minutes ¹	1 minute ¹	24 - 48 hours

ADHESIVE PLACEMENT FOR TILE PROFILE*

Tile Profile	Minimum Paddy Contact Area	Minimum Paddy Gram Weight
Flat Low High	17-23 sq inches	45-65
Flat	10-12 sq inches	30
Low	12-14 sq inches	30
High	17-19 sq inches	30
Flat Low High	Two Paddies: 8-9 sq inches at head of tile 9-11 sq inches at overlap	12 grams per paddy
Two-Piece Barrel (Cap Tile)	2 beads (1 each longitudinal edge) 20-25 sq inches each bead	17 grams per paddy
Two Piece Barrel (Pan Tile)	65-70 sq inches	34 grams under pan

*See NOA No.: 17-0322.03 for tile placement illustrations.

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.polysetadhesives.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.