




TECHNICAL DATA SHEET

SILENT SEAL® NA



LOW PRESSURE POLYURETHANE FOAM INFORMATION

Description	Low pressure, medium density, two-component expanding polyurethane foam sealant
Applications	Mine ventilation sealant that quickly and efficiently creates an air tight seal on and around mine ventilation devices, including metal and block stoppings resulting in improved ventilation efficiency. This product is not suitable to construct dry stacked block stoppings where a strength enhancing sealant is required, in accordance with MSHA guidelines.
Preparation for use	Substrate must be clean, dry, free of loose particles and free from dust, grease and/or mold release agents. Protect surfaces not to be foamed.
Use	Warm/Cool Cylinders to 75-85°F (24-29°C). Follow instructions for set-up found in the operating instructions
PPE	 <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 SDS prior to use of any product.</p>
Note	FOR PROFESSIONAL USE ONLY. Cured foam is inert and non-toxic.
Product Storage	Store in a dry area. Do not expose the kits or cylinders to open flame or temperatures above 90°F (32°C). Excessive heat can cause premature aging of components resulting in a shorter shelf-life.
Temperature	For best results, chemical temperature must be between 75-85°F (24-29°C). Warm/Cool cylinders for a minimum of 1 day prior to use. Cured foam is resistant to heat and cold, -200°F to 240°F (-129°C to 116°C).
Disposal	Refer to SDS (Section 13) or operating instructions for more information. Always dispose of empty cylinders in according to applicable federal, state, provincial and local regulations.
Shelf-life	12 months

TECHNICAL DATA	STANDARD	RESULTS
Density Core	ASTM D1622	1.75 lbs/ft ³ (28 kg/m ³)
Air Barrier Properties -Estimated @1.57 psf (75 Pa) @6.24 psf (300 Pa)	ASTM E283	<0.0025 cfm/ft ² (<0.0125 L/s/m ²) <0.01 cfm/ft ² (<0.05 L/s/m ²)
Compressive Strength	ASTM D1621	16 lbf/in ² (110 kPa) <i>Parallel @ 10%</i> 11 lbf/in ² (76 kPa) <i>Perpendicular @10%</i>
Tensile Strength	ASTM D1623	24 lbf/in ² (165 kPa)
Dimensional Stability	ASTM D2126	+/- 8%
Tack-Free/Expansion Time		10-25 seconds
Closed-Cell Content	ASTM D2856	>90%
Cuttability		2-5 minutes
Fire Rating	ASTM E162	Flame Spread Index 20

APPROVALS/STANDARDS/CLASSIFICATIONS

MSHA S10/00	Silent Seal NA is a non-strength enhancing mine sealant. Suitability Number MSHA-S10/00
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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)	40-100°F (4-38°C)

YIELD¹ (1.75 Density)

	Weight¹ (including packaging)	Board Feet	Cubic Feet
II-180 P10737	38 lbs	180 (16.7 m ²)	15 ft ³ (.42 m ³)

¹ Yield is based on density. We state our core density when describing the foam. 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.

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. Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Use only in a well-ventilated area. Check/Add product to Mine Ventilation Control Plans. 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 Adhesives & Sealants' 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.

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.