




TECHNICAL DATA SHEET

SILENT SEAL® VCF

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	Condition cylinders to 70-85°F (21-29°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 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)	ASTM E283	<0.0025 cfm/ft ² (<0.0125 L/s/m ²)
@6.24 psf (300 Pa)		<0.01 cfm/ft ² (<0.05 L/s/m ²)
Compressive Strength	ASTM D1621	15 lbf/in ² (103 kPa) Parallel 9 lbf/in ² (62 kPa) Perpendicular
Tensile Strength	ASTM D1623	27 lbf/in ² (186 kPa) Parallel
Dimensional Stability	ASTM D2126	+/- 7%
Tack-Free/Expansion Time	--	10-25 seconds
Closed-Cell Content	ASTM D2856	>90%
Cuttable	--	15 minutes
Fire Rating	ASTM E162	Flame Spread Index 9
Perm Rating- Method A 1" Thick (2.54 cm)	ASTM E96	0.91 perms - Class II Vapor Retarder

APPROVALS/STANDARDS/CLASSIFICATIONS

MSHA S10/02	Silent Seal VCF is a non-strength enhancing mine sealant. Suitability Number MSHA-S10/02
--------------------	---

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 P12045	38 lbs	180 (16.7 m ²)	15 ft ³ (0.42 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.

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.