

ADFOAM POLAR 1825

Gun grade polyurethane insulating foam-25°C

DESCRIPTION

ADFOAM POLAR 1825 is a one-component, self-expanding, ready to use polyurethane foam. It is used for insulation on windows, doors, curtain wall perimeters or any other gaps that need to be filled. It contains CFC-free propellants, which are completely harmless to the ozone layer. ADFOAM POLAR 1825 reaches R5 (thermal resistance) per square inch insulation rate. It adheres to most common construction materials and can also be used in plumbing and electrical applications.

SPÉCIFICATIONS

CAN/ULC S102



Caulking and sealants surface burning characteristics applied to inorganic reinforced cement board.
Flame spread: 15
Smoke developed: 35

*Tested as applied in two 25.4mm (1 inch) diameter beads 203.2mm (8 inches) on center covering 11.1% of the exposed test samples area.

ASTM E84



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CAN/ULC-S710.1



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PHYSICAL PROPERTIES

Tests	Standard	U/M	Results
Base			Single component polyurethane
Color			Champagne
Consistency			Stable foam, thixotropic
Curing System			Moisture cure
Skin Time [20°C (68°F) / 65% R.H.]		Minutes	±8
Drying Time [20°C (68°F) / 65% R.H.]		Minutes	20 to 25 (dust-free)
Curing Time [20°C (68°F) / 65% R.H.]			See chart below
Yield			See chart below
Shrink			None
Post Expansion			None
Open Cell	ASTM D6226	%	20 to 30
Density	ASTM D1622	Kg/m ³	16.1 (extruded, fully cured)
Temperature resistance		°C (°F)	-40 to +90 (-40 to 194) when cured
Air Permeance	ASTM E2178	L / (m ² * s)	0.0137
Dimensional Stability	ASTM D2126	%	@ -20°C (- 4°F) = + 0.2 @ +70°C (+ 158°F) / 97% (±3) H.R. = - 7.7
Durability	CAN/ULC S710 (annex A)	L / s	0.015 to 0.028
Elongation at Break	ASTM D1623	%	31
Tensile Strength	ASTM D1623	psi	14.36
Insulation factor	ASTM C518	(m ² * K) / W	0.642
Shear strength	DIN 53427	N/cm ²	17
Compression strength	DIN 53421	N/cm ²	3
Bowing strength	DIN 53423	N/cm ²	7
Water absorption	DIN 53429	%	Approximately 1 per volume
V.O.C.		g/L	201

PRODUCT CHARACTERISTICS

- Minimal expansion will not cause any distortion
- Excellent adhesion on most substrates (except Teflon, PE, and PP)
- High thermal and acoustical insulation
- Very good filling capacities
- Excellent mounting capacities
- Excellent stability (no shrink or post-expansion)
- Does not slump at low temperatures
- Can be applied at low temperatures
- Very precise application due to the foam gun system

APPLICATIONS

- Installation of window and doorframe
- Filling cavity
- Sealing of all openings in roof construction
- Creation of a soundproof screen
- Mounting and sealing of window and doorframe
- Connecting insulation materials and wood constructions
- Improving thermal insulation in the cooling system

ADFOAM POLAR 1825
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All surfaces must be free of dust, oil, grease, frost, or any other contaminant. Clean all surfaces with ADFOAM CLEANER 500. Let evaporate 20 minutes prior to ADFOAM POLAR 1825 application. Shake the aerosol can for at least 30 seconds. Fit the gun on the adapter. Moisten surfaces with a water spray prior to application [only when temperature <0°C (32°F)]. During installation, doors and windows should be levelled, squared, and mechanically fastened to avoid distortion of the frame. Fill holes and cavities at 65% as the foam will expand. The size of a foam bead should be between 1/8 and 3 inches. Repeat shaking regularly during the application. If you must work in layers repeat moistening after each layer [only when temperature <0°C (32°F)]. Fresh foam can be removed using ADFOAM CLEANER 500. Cured foam can only be removed mechanically. For later utilization, when there is still some foam inside the can, keep the can screwed on the gun. Cured foam may be trimmed or sanded. Cured foam must be protected from UVB radiation by painting or applying a top layer of sealant (silicone or hybrid sealant). Application temperature: -25°C (-13°F) to 35°C (95°F).

YIELD AND CURING TIME

Temperature of the can: 18°C (64°F)

Temperature	20°C (68°F)	0°C (32°F)	-10°C (14°F)	-25°C (-13°F)
Cured foam volume	± 65 liters ± 3966 in ³	± 40 liters ± 2441 in ³	± 35 liters ± 2136 in ³	± 30 liters ± 1830 in ³
Curing time in joint of 3cm x 3cm	1.5 hours	3 to 5 hours	8 to 10 hours	10 to 12 hours

PACKAGING

870ml (31 oz) aerosol can (12 per box)

STORAGE AND SHELF LIFE

Twelve months from the date of production, in unopened packaging in a cool and dry storage place at temperatures between 10°C (50°F) and 25°C (77°F). High humidity and storage below or above these temperatures will shorten shelf life. Always store and transport can with the valve pointed upwards.

HANDLING AND SAFETY

Apply the usual industrial hygiene. Wear gloves and safety goggles. Remove cured foam by mechanical means only, never burn away. Consult the SDS (Safety Data Sheet) for more information. If you need additional information, do not hesitate to contact your technical representative. Always test product on your application prior to use. For industrial use only.

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IMPORTANT

READ CAREFULLY

The information and recommendations contained herein are derived from our research and information from other reliable sources. This data applies only to our products and not when used with other products. We believe in the reliability of our information. However, no guarantee is offered to that effect. It is the responsibility of the buyer to verify this data according to their own operating conditions to ensure that they conform to the purpose for which the product is intended, even before using it.

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