

Closed cell insulation



Flexible, elastomeric thermal insulation, black in color. It is furnished with a smooth skin on one side which forms the outer exposed insulation surface. It is manufactured without the use of CFC's, HCFC's, or HFC's. It is also formaldehyde-free, low VOCs, dust free, fiber free and resists mold and mildew.

Factory mutual (FM) approvals

Thermal conductivity

■ 0.25 BTU=in./hr. ft² °F

Water vapor transmission:

■ 0.05 perm-inch

Fire rating

■ Will not contribute significantly to fire (simulated end use testing)

As tested by ASTM E 84 "Method of Test for Surface Burning Characteristics for Building Materials" and CAN/ULC S-102, has a flame-spread index of less than 25 and a smoke-developed index of less than 50.

Note: Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for use in the selection of products to meet limits specified.

Uses

The recommended temperature usage range is -70 °F to 220 °F (-57 °C to 105 °C) according to method of application. With full adhesive coverage attachment, the surface to which it is applied may operate to a limit of 180°F (82 °C).

Conforms to NFPA 90A and NFPA 90B requirements.

Resistance to moisture vapor flow

The closed-cell structure of the insulation prevents moisture from wicking and makes it an efficient insulation.

Specification compliance

Insulation developed to meet:

- ASTM C 534, Type II – Sheet Grade 1
- ASTM C 1534
- ASTM E 84
- NFPA 255
- UL 723
- CAN/ULC S-102
- UL 94 5V-A, V-0, File E55798
- NFPA 90A, 90B
- UL 181
- ASTM G21/C1338
- ASTM G22
- ASTM D 1056, 2B1
- MIL-P-15280J, FORM S
- MIL-C-3133C (MIL STD 670B), Grade SBE 3
- MEA 107-89M
- City of Los Angeles – RR 7642

Physical data

Physical properties	Test methods	
Thermal conductivity Btu • in./h • ft ² • °F (W/mK)		
◦ 75 °F mean temperature (24 °C)	0.25 (0.036)	ASTM C 177 or C 518
◦ 90 °F mean temperature (32 °C)	0.256 (0.037)	
Water vapor permeability Perm-in. [Kg/(s•m•Pa)]	0.05 (0.725 x 10 ⁻¹³)	ASTM E 96, Procedure A
Flame spread and smoke developed index through 1" (25 mm)*	25/50	ASTM E 84 CAN/ULC S102
Mold growth	UL181	Meets requirements
Fungi resistance	ASTM G21/C1338	Meets requirements
Bacterial resistance	ASTM G22	Meets requirements
Water absorption, % by volume	0.2%	ASTM C 209
Upper use limit	180/220 °F (82/105 °C)	
Lower use limit [◦]	-297 °F (-183 °C)	
Ozone resistance	Good	
Density, typical range [◦]	3.0 to 6.0 lbs./ft ³	ASTM D 1622 D 1667

Performance approved through continuing supervision by Factory Mutual (FM) approvals.

[◦] At temperatures below -20 °F (-29 °C), elastomeric insulation starts to become less flexible. However, this characteristic does not affect thermal efficiency or water vapor permeability of the insulation.

[◦] Reference ONLY.