

Science. Applied to Life.™

English-US

Last Revision Date: April, 2025

Supersedes: September, 2024

Technical Data Sheet

3M™ VentureClad™ Insulation Jacketing System 1577CW-E

Product Details

Product Description

3M™ VentureClad™ Insulation Jacketing System is a zero permeability, all weather, multi-layered laminate coated with an aggressive cold weather acrylic adhesive. Superior resistance to weathering, fungi, UV and extreme environmental conditions. Designed for use as a vapor barrier for insulation cladding and jacketing applications. Available in both flat and embossed.

Product Features

- Superior adhesion in cold or hot and humid conditions temperatures.
- Bonds and seals at temperatures as cold as -10°F (-23°C).
- Zero permeability vapor barrier for insulation cladding and jacketing applications
- High puncture and tear resistant ensures longevity and durability
- Flexible and strong.
- Cuts and installs easily on-site, no special tools required.
- Available in multiple colors.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Test Method	Value
Color		Natural Aluminum
Embossed		Yes
Puncture		121 N (27 lb)
Total Tape Thickness	ASTM D3652	0.23 mm (9 mil)
Water Vapor Transmission	ASTM E96	0

Typical Performance Characteristics

Attribute Name	Test Method	Dwell Time	Temperature	Value
180° Peel Adhesion	ASTM D3330	1 min	23 °C (73 °F)	9.1 N/cm (83 oz/in) [1]
Tensile Strength				130 N/cm (74 lb/in)
Emittance				0.03

[1] 300 mm/min (12 in/min)

Attribute Name	Value
Long Term Temperature Resistance	149 °C (300 °F) [1]
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) [1]

[1] Long Term (day, weeks)

Typical Environmental Characteristics

Environmental Resistance

Good

Certifications/Standards

Certifications

Product	1577CW-EMJ	1577CWE-EMJ	1577CW-WM	1577CW-WME
ASTM E84 Flame/Smoke Rating			25/45	25/45
UL723 Classified Flame/Smoke Rating (UL file #R10984)	25/25	25/25		
CAN/ULC S102 Classification Flame/Smoke Rating		15/20	25/25	
Meets FDA Compositional requirements for indirect food contact (21 CFR 175.105 and 21CFR175.125; FDA: Indirect Food Additives: Adhesives and Components of coatings)	X	X	X	X
Approved by Canadian Food Inspection Agency for use in food processing facilities as vapor barrier for insulation cladding and jacketing	X	X	X	X
Contains Mold Inhibiting Agents	X	X		
Passes ASTM C1338 Fungi Resistance Testing	X	X	X	X
U.S. Coast Guard Approval	X	X	X	X
IMO Resolution A653 (16)	X	X	X	X
IMO Resolution MSC61 (67) Annex 2 IMO Resolution MSC 61 (67) Annex 1 Part 2 and Annex 2	X	X	X	X
BS476 parts 6 & 7 Class "O"			X	X

Storage and Shelf Life

Store under normal conditions of 4° to 27°C (40° to 80°F) and 40 to 50% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Industrial Specialties Division
3M Center, St. Paul, MN 55144-1000
www.3M.com

3M and VentureClad are trademarks of 3M Company.
©3M 2025 (4/25)