



Technical Data Sheet

3M™ VentureClad™ 1577CWE-EMJ Insulation Jacketing Tape



[Product Details](#)



[Regulatory Info/SDS](#)

Product Description

3M™ VentureClad™ Insulation Jacketing System is a zero permeability, all weather, multi-layered laminate coated with an aggressive cold weather acrylic adhesive. Excellent 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

- Excellent 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.

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		Silver
Embossed		Yes
Total Tape Thickness	ASTM D3652	0.23 mm (9 mil)
Puncture		156 N (35 lb)
Water Vapor Transmission	ASTM E96	0 US Perms

Typical Performance Characteristics

Attribute Name	Test Method	Dwell Time	Temperature	Test Condition	Value
180° Peel Adhesion	ASTM D3330	1 min	22 °C (72 °F)		8.7 N/cm (80 oz/in) ¹
Tensile Strength	ASTM D882			Machine Direction	10.6 N/cm (100 lb/in)

¹ 12 in/min (300 mm/min)

Attribute Name	Value
Long Term Temperature Resistance	120 °C (248 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) ¹

¹ Long Term (day, weeks)

Typical Environmental Characteristics

Chemical and Environmental Exposure

Acids	Acetic acid (all concentrations) 50% formic acid 10% hydrochloric acid 30% hydrochloric acid 10% and 35% hydrofluoric acid 10% nitric acid 65% and 100% nitric acid 30% and 85% phosphoric acid 20% sulphuric acid Sulphur dioxide gas, dry 80% and above sulphuric acid	Resistant Resistant Resistant Partially resistant Resistant Resistant Not resistant Resistant Partially resistant Resistant Not resistant
Aldehydes	Acetaldehyde Formaldehyde	Resistant Resistant
Aqueous Alkaline Solutions	Ammonium hydroxide Calcium hydroxide Sodium hydroxide	Not resistant Partially resistant Not resistant
Chlorinated Hydrocarbons	Carbon tetrachloride Chlorinated biphenyls Chloroform Trichloroethylene	Partially resistant Partially resistant Resistant Resistant
Esters	Ethyl acetate	Resistant
Hydrocarbons	Aliphatic hydrocarbons Benzene Gasoline (petrol) Mineral oils Toluene Xylene	Resistant Resistant Resistant Resistant Resistant Resistant
Miscellaneous Substances	Chlorine Hydrogen peroxide Oxygen Water*	Resistant Resistant Resistant Resistant
Other Organic Solutions	Acetone Diethyl ether Nitrobenzene Phenol	Resistant Resistant Not resistant Not resistant
Salt Solutions	Alkaline carbonates Bichromates Cyanides Fluorides	Resistant Resistant Resistant Resistant

*Chemical resistance info based in part on third party test data of the product backing.

Environmental Resistance

Excellent

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 in a clean, dry place. Temperature of 40-80°F (4-26°C) and 40 to 50% relative humidity are recommended. To obtain best performance, use this product within 24 months from date of manufacture.

Information

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ISO Statement

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

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