



VentureClad™ Insulation Jacketing Tapes 1577 Series

**1577CW • 1577CW-E • 1577CW-CM • 1577CW-BM •
1577CW-WM • 1577CW-WME**

Technical Data

August 2017

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.

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- 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.

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Typical
Physical
Properties

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

Product	1577CW	1577CW-E	1577CW-CM	1577CW-BM	1577CW-WM	1577CW-WME
Color	Natural Aluminum	Natural Aluminum	Natural Aluminum	Black	White	White
Embossed	No	Yes	No	No	No	Yes
Total Product Thickness (without Liner)	6 mils (0.16mm)	9 mils (0.23mm)	7 mils (0.18mm)	7 mils (0.18mm)	7 mils (0.18mm)	9 mils (0.23mm)
Peel Adhesion	75 oz/in (21.0 N/25mm)	83 oz/in (23.0 N/25mm)	78 oz/in (22.0 N/25mm)	69 oz/in (19.0 N/25mm)	80 oz/in (22.0 N/25mm)	82 oz/in (23.0 N/25mm)
Tensile Strength	80 lb/in (355 N/25mm)	74 lb/in (329 N/25mm)	100 lb/in (445 N/25mm)	112lb/in (498 N/25mm)	108 lb/in (480 N/25mm)	100 lb/in (445 N/25mm)
Elongation	63%	45%	61%	70%	62%	59%
Service Temperature	-94° to 300°F (-70° to 149°C)	-94° to 300°F (-70° to 149°C)	-94° to 248°F (-70° to 120°C)	-94° to 248°F (-70° to 120°C)	-94° to 248°F (-70° to 120°C)	-94° to 248°F (-70° to 120°C)
Puncture	25 lbs (111N)	25 lbs (111N)	33 lbs (147N)	33 lbs (147N)	33 lbs (147N)	33 lbs (147N)
Emmittance	0.03	0.03	0.6	0.8	0.8	0.8
WVTR	0.00 perm	0.00 perm	0.00 perm	0.00 perm	0.00 perm	0.00 perm
Chemical Resistance	Good	Good	Excellent	Excellent	Excellent	Excellent

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Classifications

Product	1577CW	1577CW-E	1577CW-CM	1577CW-BM	1577CW-WM	1577CW-WME
ASTM E84 Flame/Smoke Rating			25/30	25/50	25/45	25/45
UL723 Classified Flame/Smoke Rating (UL file #R10984)	25/25	25/25				
CAN/ULC S102 Classification Flame/Smoke Rating	25/25	25/25			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
Approved by Canadian Food Inspection Agency for use in food processing facilities as vapor barrier for insulation cladding and jacketing					X	X
Contains Mold Inhibiting Agents	X	X	X			
Passes ASTM C1338 Fungi Resistance Testing	X	X	X	X	X	X
U.S. Coast Guard Approval	164.112/63/0	164.112/63/0			164.112/1121/WCL MED029OTE	164.112/1121/WCL MED029OTE
IMO Resolution A653 (16)	X	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	X		X	X
DIN 4102-1	X	X				
SANS 10177 Opart 3 Class 1	X	X				
NYC MEA	X	X				
Meets CINI 3.3-12 Requirement	X	X				
Japan Building Standard Law Article 2, Clause 9	X	X				

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Physical and Chemical
Stability

Membrane Version Only 1577CW-CM, 1577CW-BM, 1577CW-WM,
1577CW-WME

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.

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Storage	Store in a clean, dry place. Temperature of 40-80°F (4-26°C) and 40 to 50% relative humidity are recommended.
Shelf Life	To obtain best performance, use this product within 24 months from date of manufacture
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.
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ISO 9001

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



Industrial Adhesives and Tapes Division

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