

ABAA Process for Approval of Air Barrier Materials, Accessories and Assemblies

5.1 Mechanically Fastened Commercial Building Wraps

Product Property	Specimen Type	Material Type	Test Standard	Test Standard Title	Unit	Requirement	
						Min	Max
Air Permeance	As received	All materials	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft ² at a pressure differential of 1.57 psf	-	0.004
					(L/(s·m ²) at a pressure differential of 75 Pa)	-	(0.02)
Dry Tensile Strength or Dry Breaking Force	As received	Paper and felt-based	ASTM D828-97 (2002)	Standard Test Method For Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus Test to machine direction and cross direction.	lbf/in (N/mm)	20 (3.5)	-
						Polymeric-based	ASTM D882-12
		OR					

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			ASTM D5034-09	Standard Test Method For Breaking Strength and Elongation of Textile Fabrics (Grab Test) Test to machine direction and cross direction.	lb/in (N/mm)	40 machine/35 cross direction (7.0 machine/6.1 cross direction)	-
Water Vapor Permeance	As received	All materials	ASTM E96/E96M-10 (Desiccant or Water Method)	Standard Test Methods For Water Vapor Transmission of Materials	US Perms (ng/(Pa·s·m ²))	(5) 300	-
Pliability	As received	All materials	ICC-ES AC38, Section 3.3.4	Acceptance Criteria For Water-Resistive Barriers- the material does not crack when bent over a 1.6 mm (1/16 inch) diameter mandrel at a temperature of 0°C (32°F)	-	Pass	-

						Type 1	Type 2	
Water Resistance	As received and weathered	Paper, felt or polymeric-based	ASTM D779-03	Standard Test Method For Water Resistance of Paper, Paperboard and Other Sheet Materials By The Dry Indicator Method	m	10	60	-
		Polymeric-based	AATCC-127	Water Resistance: Hydrostatic Pressure Test no leakage under specimen with 55 cm hydrostatic head in 5 hours.	-	-	Pass	-
OR								

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			CCMC 07102, Section 6.4.5	Water Ponding no leakage in 2 h	-	Pass	-	-
OR								
Air Permeance	As received	All materials	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft ² at a pressure differential of 1.57 psf (L/(s·m ²) at a pressure differential of 75 Pa)	-	-	0.004 (0.02)
Standard Specification	As received	All materials	ASTM E2556 / E2556M - 10	Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment	-	As defined by standard		

