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	Requi	rement	
						Min	Max	
Air Permeance	As received	All materials	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft² at a pressure differential of 1.57 psf (L/(s·m²) at	-	(0.02)	
					a pressure differential of 75 Pa)			
Dry Tensile Strength or	As received	Paper and felt-based	ASTM D828- 97 (2002)	Standard Test Method For	lbf/in	20		
Dry Breaking Force	*	J I		Tensile Properties of Paper and Paperboard Using Constant- Rate-of- Elongation Apparatus	(N/mm)	(3.5)	-	
		+		Test to machine direction and cross direction.				
		Polymeric- based	ASTM D882- 12	Standard Test Method For Tensile	lbf/in	20		
				Properties of Thin Plastic Sheeting	(N/mm)	(3.5)	-	
				Test to machine direction and cross direction.				
			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.	lbf/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)	iica *	Pass	-

						Type 1	Type 2		
Water Resist- ance	As received and weathered	Paper, felt or polyme ric-	ASTM D779-03	Standard Test Method For Water Resistance of Paper, Paperboard and Other Sheet Materials By The Dry	m	10	60	-	
		Polyme ric- based	AATCC- 127	Indicator Method 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 Perme- ance	As received	All materia Is	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft² at a pressure differential of 1.57 psf (L/(s·m²) at a pressure		-	(0.02)
			-6	sociation	differential of 75 Pa)			
Standard Specific- ation	As received	All materia Is	ASTM E2556 / E2556M - 10	Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment	ON.	As d	lefined by s	standard

