

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

## 1.0 Overview

This document defines the requirements and outlines the process for a manufacturer to have air barrier products evaluated by ABAA and when the product meets the requirements listed below, be included in ABAA documents. This document provides the performance criteria for the product and submittal requirements set forth by ABAA.

## 2.0 Objective

To provide a consistent, documented process for ABAA evaluation of air barrier materials, accessories and assemblies.

## 3.0 Definitions:

### Accredited laboratory

*Testing laboratory that has been accredited by IAS (International Accreditation Service Inc), A2LA (American Association for Laboratory Accreditation) or SCC (Standards Council of Canada) to perform the test protocol for each test method including but not limited to ASTM E2178 and ASTM E2357.*

### Air barrier accessory

*Products designated to maintain air tightness between air barrier materials, air barrier assemblies and air barrier components, to fasten them to the structure of the building, or both (e.g., sealants, tapes, backer rods, transition membranes, nails/washers, ties, clips, staples, strapping, primers).*

### Air barrier assembly

*Combination of air barrier materials and air barrier accessories that are designated and designed within the environmental separator to act as a continuous barrier to the movement of air through the environmental separator.*

### Air barrier component

*Pre-manufactured elements such as windows, doors and service elements that are installed in the environmental separator.*

### Air barrier manufacturer

*Corporation which manufactures air barrier materials, accessory, components and / or assemblies. The manufacturer shall declare whether their product is a material, accessory, component or an assembly.*

### Air barrier material

*Building material with an air permeance not greater than 0.02 L/(s·m<sup>2</sup>) at 75 Pa that is designed and constructed to provide the primary resistance to airflow through an air barrier assembly.*

**Air barrier system**

*Combination of air barrier assemblies and air barrier components, connected by air barrier accessories that are designed to provide a continuous barrier to the movement of air through an environmental separator.*

**Air leakage rate**

*Rate of airflow (L/s) driven through a unit surface area (m<sup>2</sup>) of an assembly at a static pressure difference (Pa) across the assembly (see also ASTM E2357).*

**Air permeance**

*Rate of airflow (L/s) through a unit area (m<sup>2</sup>) of a material driven by a unit static pressure difference (Pa) across the material (see also ASTM E2178).*

**Design service life**

*Service life specified by the designer according to the expectations (or requirements) for the air barrier material (see also CSA-S478).*

**Environmental separator**

*Parts of a building that separate the controlled interior environment from the uncontrolled exterior environment, or that separate spaces within a building that have dissimilar environments.*

**Sprayed polyurethane foam (medium density closed cell)**

*Rigid cellular plastic material that is formed in place by the catalyzed reaction of polymeric isocyanate and resin (which includes polyhydroxyl compounds, and blowing agents, etc.) producing a predominantly closed cell product that has a minimum density of 28 kg/m<sup>3</sup>.*

**Service life**

*Period of time during which the air barrier assembly or any of its materials or accessories performs without unforeseen costs or disruption for maintenance or repair.*

**4.0 Requirements for Evaluation of Air Barrier Materials**

The manufacturer shall submit the following (signed) documentation to the ABAA office for review.

**4.1 Application Form**

An application form shall be completed by the manufacturer for each material they declare meets the minimum requirements set by ABAA for an air barrier material.

**4.2 ABAA Licensing Agreement**

An ABAA Licensing Agreement shall be signed and completed by the manufacturer.

### 4.3 Air Barrier Materials – Testing Requirements

The air permeance testing shall be conducted by an *accredited laboratory* in accordance with the latest published edition of ASTM E2178. All of the information required in the reporting section of the test method shall be included in the test report. The test report shall state that the test was conducted in accordance with the standard. If the test method was modified, then the test report shall describe the modification.

The water vapor transmission testing shall be conducted by an *accredited laboratory* or the manufacturer shall provide the value obtained from a recognized evaluation agency such as ICC-ES or CCMC. All of the information required in the reporting section of the test method shall be included in the test report. The test report shall state that the test was conducted in accordance with the standard. If the test method was modified, then the test report shall describe the modification.

The air leakage of air barrier assembly testing shall be conducted by an *accredited laboratory* in accordance with the latest published edition of ASTM E2357. All of the information required in the reporting section of the test method shall be included in the test report. The test report shall state that the test was conducted in accordance with the standard. If the test method was modified, then the test report shall describe the modification.

### 4.4 Air Permeance Testing

#### 4.4.1 Fluid applied air barrier materials

##### a. Free film material testing

Fluid applied materials shall be tested at a measured thickness, in accordance with the manufacturer's product data sheet(s), installation instructions and/or master specification and fabricated in accordance with the manufacturer's field delivery requirements. The test report shall include the method of installation used for the evaluation. The air permeance testing shall be in accordance with ASTM E2178 by installing the material on a release paper, then removing the release paper after installation in the test apparatus.

##### b. Sub-assembly testing

For products which cannot be tested in a "free film" state, instead of testing as a free film, the manufacturer shall test the material as part of a sub-assembly where the material shall be installed on a medium density CMU substrate and this sub assembly is tested. In cases of sub-assemblies, the air permeance of the CMU before installation of the air barrier material shall be reported. A copy of

the test report stating what modifications were made to ASTM E2178 for the purpose of conducting this test shall be provided with the application.

A successful test by using the particular installation method will result in the following ABAA approval methods:

<b>Installation Method</b>	<b>Installation Methods Approved</b>
Spray	Spray, Roll, Trowel
Roll	Roll, Trowel
Trowel	Trowel

#### **4.5 Material Specific Testing**

The manufacturer shall conduct all of the tests in one of the tables of Clause 5.0 based on the table appropriate for their type of material. A copy of a test report from a manufacturer's internal laboratory or a third-party laboratory with all of the information required in the reporting section of the test method shall be submitted.

#### **4.6 Supporting Documentation**

The manufacturer shall provide the following applicable documentation for each air barrier material:

- i. Technical data sheet for the material
- ii. Manufacturer guide/master specification for the material
- iii. Typical construction details (if climate specific, this shall be indicated) which include the following as a minimum;
  1. roof/wall
  2. wall/foundation
  3. window/wall
  4. expansion joint
  5. change in plane
  6. change in substrate
  7. penetrations
  8. inter-story connections
  9. deflection joints
  10. substrate joints
  11. defects

- iv. Installation instructions that include information on;
  - 1. substrate preparation
  - 2. required ambient and substrate conditions (e.g. temperature, moisture content, wind, humidity, precipitation, falling temperature, etc.)
  - 3. application method (e.g. mechanically fastened, trowel on, roll on or spray on)
  - 4. sequence and technique for installation of *air barrier materials* and *air barrier accessories*
  - 5. material compatibility listing
  - 6. listing of air barrier accessories
  - 7. for fluid-applied membranes - minimum installation thickness
- v. A list of substrates that the material can be installed on and specifically list any substrate where the manufacturer does not recommend their material be installed upon
- vi. Service temperature of installed material
- vii. Declared VOC content in g/l and test method
- viii. Material Safety Data Sheet
- ix. Maximum allowed UV exposure
- x. Shelf life of material
- xi. Manufacturers logo electronically in vector format (.eps or .ai)

#### **4.7 Submission of Product Samples**

The manufacturer will submit three material samples, minimum size of 120 square inches.

#### **5.0 Required Tests by Air Barrier Material Type**

Complete all of the tests listed in one of the tables below.

**5.1 Boardstock Air Barrier – Rigid Cellular Thermal Insulation Board**

Product Property	Test Standard	Material Type	Test Standard Title	Unit	Requirement	
					Min.	Max.
Standard Specification	ASTM C1289-12e1	Polyisocyanurate	Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board	-	As defined by standard	
	<b>OR</b>					
	ASTM C578-12a	Polystyrene	Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation	-	As defined by standard	
Air Permeance	ASTM E2178-11	All	Standard Test Method for Air Permeance of Building Materials	cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf  (L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa)	-  -	0.004  (0.02)

**5.1.1 Classification**

The Product Type in ASTM C1289 or Classification in ASTM C578 of the boardstock being tested shall be listed in the test reports.

## 5.2 Factory-Bonded Membranes to Sheathing

Product Property	Test Standard	Test Standard Title	Unit	Requirement	
				Min.	Max.
Air Permeance	ASTM E2178-13	Standard Test Method for Air Permeance of Building Materials	L/(s•m <sup>2</sup> ) at a pressure differential of 75 Pa  (cfm/ft <sup>2</sup> at a pressure differential of 1.57 psf)	-	0.02  (0.004)
Pull Adhesion	ASTM D4541-09e1	Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers - <i>Specify substrate and surface preparation. Declare failure mode.</i>	psi  (kPa)	16  (110)  or report value at substrate release	-
Peel Adhesion (of adjoining board transition material to factory-bonded laminated material)	ASTM D3330 / D3330M – 04 (2010) method F	Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape	lbf/in (pli)  (N/mm)	1.0  (0.175)	-
Water-Resistance Testing	AATCC 127-08	Water Resistance: Hydrostatic Pressure Test for 5 hours	inches  (cm)	pass @ 22  (pass @ 55)	-
Fastener Seal ability	ASTM D1970 / D1970M - 13	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection	-	Pass	-
Water Vapor Permeance	ASTM E96 / E96M - 12	Standard Test Methods for Water Vapor Transmission of Materials (Water and Desiccant methods)	US Perms  (ng/Pa•s•m <sup>2</sup> )	Declare	

### 5.3 Fluid Applied Membranes

All testing shall be conducted with the applied liquid material within the minimum / maximum range. The specific thickness of the material which was used when conducting the following tests shall be recorded on the test report and shall be the site installed thickness.

Product Property	Test Standard	Test Standard Title	Unit	Requirement	
				Min	Max
Air Permeance	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf  (L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa)	-	0.004  (0.02)
Water Resistance	AATCC 127 - 2008	Water Resistance: Hydrostatic Pressure Test for 5 h	inches  (cm)	22  (55)	-
Self-Seal ability	ASTM D1970 / D1970M - 11	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection - Section 8.9 Nail Seal ability	-	Pass or specify sealing detail around fasteners	-
Pull Adhesion	ASTM D4541-09e1	Modified Version of Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete using Portable Pull-Off Adhesion Testers– Specify substrates and surface preparation for glass fiber faced gypsum sheathing and concrete block. Declare failure mode.	psi  (kPa)	16  (110) or report value at substrate failure	-
Crack Bridging	ES-AC 212	Acceptance Criteria for Water-Resistive Coatings used as Water-Restive Barriers over Exterior Sheeting	-	Pass	-
	<b>OR</b>				
	ASTM C1305-08	Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane– Report thickness and joint	-	Pass	-



		treatment (158° for 2 weeks)			
Water Vapor Permeance (at applied thickness)	ASTM E96/E96M-10 (Desiccant and Water Methods)	Standard Test Methods for Water Vapor Transmission of Materials	US Perms (ng/(Pa·s·m <sup>2</sup> ))	Declare	

### 5.4 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 <sup>2</sup> at a pressure differential of 1.57 psf	-	0.004
					(L/(s·m <sup>2</sup> ) 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)	-

**Air Barrier Association of America Inc.**

		Polymeric-based	ASTM D882-12	Standard Test Method For Tensile Properties of Thin Plastic Sheeting  Test to machine direction and cross direction.	lbf/in  (N/mm)	20  (3.5)	-
<b>OR</b>							
			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 <sup>2</sup> ))	(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	-

**Air Barrier Association of America Inc.**

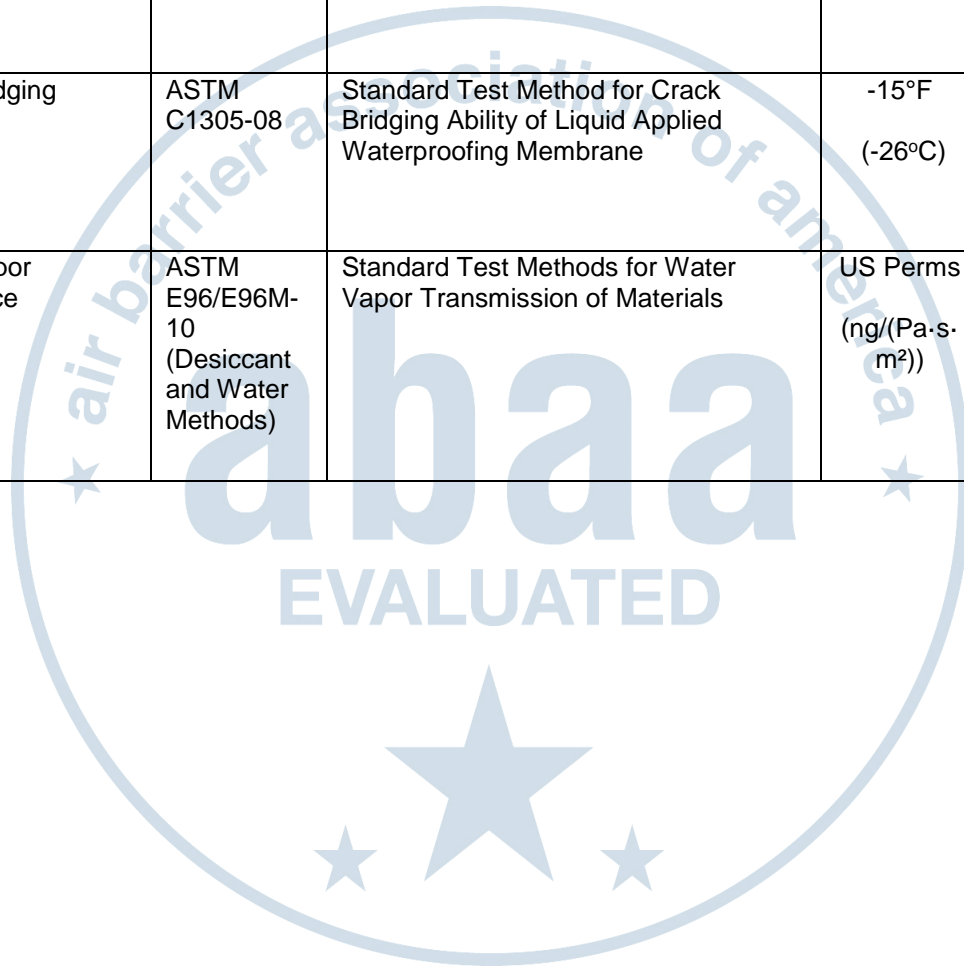
						Type 1	Type 2	
Water Resist- ance	As received and weathered	Paper, felt or polymeric-based	ASTM D779-03	Standard Test Method For Water Resistance of Paper, Paperboard and Other Sheet Materials By The Dry Indicator Method	m	10	60	-
		PolymERIC-based	AATCC-127	Water Resistance: Hydrostatic Pressure Test no leakage under specimen with 55 cm hydrostatic head in 5 hours.	-	-	Pass	-
		<b>OR</b>						
			CCMC 07102, Section 6.4.5	Water Ponding no leakage in 2 h	-	Pass	-	-
<b>OR</b>								
Air Perme- ance	As received	All materials	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf	-		0.004
					(L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa)	-		(0.02)
Standard Specific- ation	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		

5.5 Self-Adhered Membranes

Product Property	Test Standard	Test Standard Title	UNIT	Requirements	
				Min	Max
Air Permeance	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa  (cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf)	-	0.02  (0.004)
Resistance to Puncture (reduce damage)	ASTM E154-08a	Standard Test Methods for Water Vapor Retarders Used in Contact with Under Concrete Slabs, on Walls or as Ground Cover - Section 10 only.	lbf  (N)	40  (178)	-
Tensile Strength	ASTM D882-12	Standard Test Method for Tensile Properties of Thin Plastic Sheeting	lbf/in  (N/mm)	20 or until substrate failure  (3.5 or until substrate failure)	-
Water Resistance	AATCC 127 - 2008	Water Resistance: Hydrostatic Pressure Test for 5 hours	inches  (cm)	22  (55)	-
Peel or Stripping Strength of Adhesive Bonds	ASTM D903-98 (2004)	Standard Test Method for Peel or Stripping Strength of Adhesive Bonds - <i>Specify substrates and surface preparation for glass fiber faced gypsum sheathing and/or concrete block. Declare failure mode.</i>	lbf/in  (N/mm)	5.0  (0.875)	-
Lap Adhesion	ASTM D1876-08	Standard Test Method for Peel Resistance of Adhesives (T peel test) – <i>Specify Substrates and surface preparation for glass fiber faced gypsum sheathing and/or concrete block. Declare failure mode.</i>	lbf/in  (N/mm)	5.0  (0.875)	-
Low Temperature Flexibility	ASTM D1970 / D1970M - 11	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection – Section 7.6 Low Temperature Flexibility	-20°F  (-30°C)	Pass	-
Self Sealability	ASTM D1970 / D1970M - 11	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection – Section 8.9 Nail Sealability	-	Pass or specify sealing detail around fasteners	-

**Air Barrier Association of America Inc.**

Pull Adhesion	ASTM D4541-09e1	Modified Version of Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete using Portable Pull-Off Adhesion Testers <i>Specify substrates and surface preparation for glass fiber faced gypsum sheathing and concrete block. Declare failure mode</i>	psi  (kPa)	16  (110) or report value at substrate failure	-
Tear Initiation and Tear Propagation	ASTM D4073-06	Standard Test Method for Tensile-Tear Strength of Bituminous Roofing Membrane  Machine direction / cross direction	lbf  (N)	9.0  (40)	-
Crack Bridging	ASTM C1305-08	Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane	-15°F  (-26°C)	Pass	-
Water Vapor Permeance	ASTM E96/E96M-10 (Desiccant and Water Methods)	Standard Test Methods for Water Vapor Transmission of Materials	US Perms  (ng/(Pa·s·m <sup>2</sup> ))	Declare	



## 5.6 Sprayed Polyurethane Foam (Medium Density Closed Cell)

The manufacturer shall declare the minimum or maximum thickness allowed for their liquid applied air barrier material.

All testing shall be conducted with the applied liquid material within the minimum / maximum range. The specific thickness of the material which was used when conducting the following tests shall be recorded on the test report:

Product Property	Test Standard	Test Standard Title	Unit	Requirement	
				Min	Max
Air Permeance	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf	-	0.004
			(L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa)	-	(0.02)
Flame Spread Characteristics	ASTM E84-12c	Standard Test Method for Surface Burning Characteristics of Building Materials	-	-	75
Water Vapor Transmission	ASTM E96/E96M-10 (Desiccant and Water Methods)	Standard Test Methods for Water Vapor Transmission of Materials	US Perms (ng/(Pa·s·m <sup>2</sup> ))	Report US Perm of material at 1 inch thick	
Thermal Transmission	ASTM C177-10	Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus	<u>ft<sup>2</sup>·°F·h/Btu</u> (m <sup>2</sup> ·°C/W)	Report	
	<b>OR</b>				
	ASTM C518-10	Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	<u>ft<sup>2</sup>·°F·h/Btu</u> (m <sup>2</sup> ·°C/W)	Report	
Compressive Strength	ASTM D1621-10	Standard test method for Compressive Properties of Rigid Cellular Plastics	psi (kPa)	15 (104)	-
Density	ASTM D1622-08	Standard Test Method for Apparent Density of Rigid Cellular Plastics	lb/ft <sup>3</sup> (kg/m <sup>3</sup> )	1.75 (28)	-
Tensile Strength	ASTM D1623-09	Standard Test Method for tensile and Tensile Adhesive Properties of Rigid Cellular Plastics	psi (kPa)	20 (138)	-
Dimensional Stability	ASTM D2126-09	Standard Test Method for response of Rigid Cellular Plastics to Thermal and humid Aging -20°C 80°C 70°C, 97% ±3 % R.H.	%	- - -	-4 +8 +15

**Air Barrier Association of America Inc.**

Water Absorption	ASTM D2842-12	Standard test method for Water Absorption of Rigid Cellular Plastics	%	-	4
Open Cell Content	ASTM D2856-94(1998)/ ASTM D6226-10	Standard test Method for Open-Cell Content of Rigid Cellular Plastics by the Air Pycnometer	%	-	10
Pull Adhesion	ASTM D4541-09e1	Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion testers	psi  (kPa)	16  (110) or report value at substrate failure	-
Crack Bridging	ASTM C1305-08	Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane	-15°F  (-26°C)	Pass	-

**5.7 Adhesive Backed Commercial Building Wraps**

Product Property	Test Standard	Test Standard Title	Unit	Requirement	
				Min	Max
Air Permeance	ASTM E2178-11	Standard Test Method for Air Permeance of Building Materials	cfm /ft <sup>2</sup> at a pressure differential of 1.57 psf	-	0.004
			(L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa)	-	(0.02)
Adhesion	ASTM D4541	Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers - <i>modified to separate area being tested from the balance of the material by cutting to substrate</i>	Psi  (kPa)	16  (110) Or report value at substrate failure	-  -
Dry Tensile Strength or Dry Breaking Force	ASTM D882-12	Standard Test Method For Tensile Properties of Thin Plastic Sheeting  Test to machine direction and cross direction.	lbf/in	20	-
			(N/mm)	(3.5)	-
<b>OR</b>					

**Air Barrier Association of America Inc.**

	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)	-
Lap adhesion	D1876-08	Standard Test Method for Peel Resistance of Adhesives (T-Peel Test) – <i>Specify substrate and surface preparation for glass fiber faced gypsum sheathing and/or concrete block.</i>	lbf/in  (N/mm)	5  (0.875) <i>Declare failure mode.</i>	-  -
		<b>OR</b>			
	ASTM D3330-10	Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape – <i>Method B</i>	lbf/in  (N/mm)	5  (0.875) <i>Declare failure mode.</i>	-  -
Pliability	ASTM D1970-14 section 7.6	Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection - <i>7.6 Low Temperature Flexibility</i>	material demonstrates no visible signs of cracking	Pass	-
		<b>OR</b>			
	ICC-ES AC38, Section 3.3.4	Acceptance Criteria For Water-Resistive Barriers- <i>material does not crack when bent over a 1.6 mm (1/16 inch) diameter mandrel at a temperature of 0°C (32°F)</i>	material demonstrates no visible signs of cracking	Pass	-
Water Resistance	AATCC-127	Water Resistance: Hydrostatic Pressure Test no leakage under specimen with 55 cm hydrostatic head in 5 hours.	-	Pass	-
Water Vapor Permeance	ASTM E96/E96M-10 (Desiccant and Water Method)	Standard Test Methods For Water Vapor Transmission of Materials	US Perms  (ng/(Pa·s·m <sup>2</sup> ))	declared	-



## 6.0 Air Barrier Assembly Testing

The material being evaluated shall be incorporated and tested as part of an air barrier assembly in conformance with ASTM E2357 – Standard Test Method for Determining Air Leakage of Air Barrier Assemblies by an *accredited laboratory*. A **complete** test report shall be submitted to ABAA for review.

The conditioning within ASTM E2357 provides information that the materials and accessories perform under the loads imposed.

Product Property	Test Standard	Test Standard Title	Requirement
Assembly Air Leakage	ASTM E2357-11	Standard Test Method for Determining Air Leakage of Air Barrier Assemblies	Not greater than: 0.04 cfm/ft <sup>2</sup> at a pressure differential of 1.56 lb./ft <sup>2</sup>  [0.20 L/(s·m <sup>2</sup> ) at a pressure differential of 75 Pa] when tested in both directions

### 6.1 Specimen Preparation

Installation instructions for the *air barrier assembly* shall be provided to the *accredited laboratory* by the *air barrier manufacturer* for the materials to be installed on the test assembly to prepare the specimen for ASTM E2357 testing in conformance with the standard.

If there are no installation instructions provided to the *accredited laboratory*, the following details of the installation of the *air barrier materials* and the *air barrier accessories* shall be documented and included in the test report:

- i. Installation details shall include information on:
  1. substrate
  2. substrate preparation
  3. required ambient and substrate conditions (e.g. temperature, wind, humidity, precipitation, falling temperature, etc.),
  4. installation method (e.g. mechanically fastened, trowel on, roll on or spray on)
  5. sequence and technique for installation
  6. material compatibility listing
  7. listing of approved primers and sealants

8. chemical compatibility
9. for fluid-applied membranes - minimum and maximum installation thickness (as fabricated by the manufacturers field delivery system), including thicknesses for application on concrete block, solids by weight, coverage rate and drying time, and
10. submit a copy of approved details for the assembly

## 7.0 Review Process

All submittal documentation, when received will be reviewed against the ABAA checklist for compliance. The ABAA office will correspond with the manufacturer in regards to clarification or missing items.

Once all submittal information has been received, it will be documented and organized by ABAA Technical Staff, who will provide a review of the documentation submitted and any comments in the form of an itemized checklist.

The technical completeness and consistency review will consist of the following:

- a. Review of test data reports
- b. Review of specifications, installation instructions and product limitations

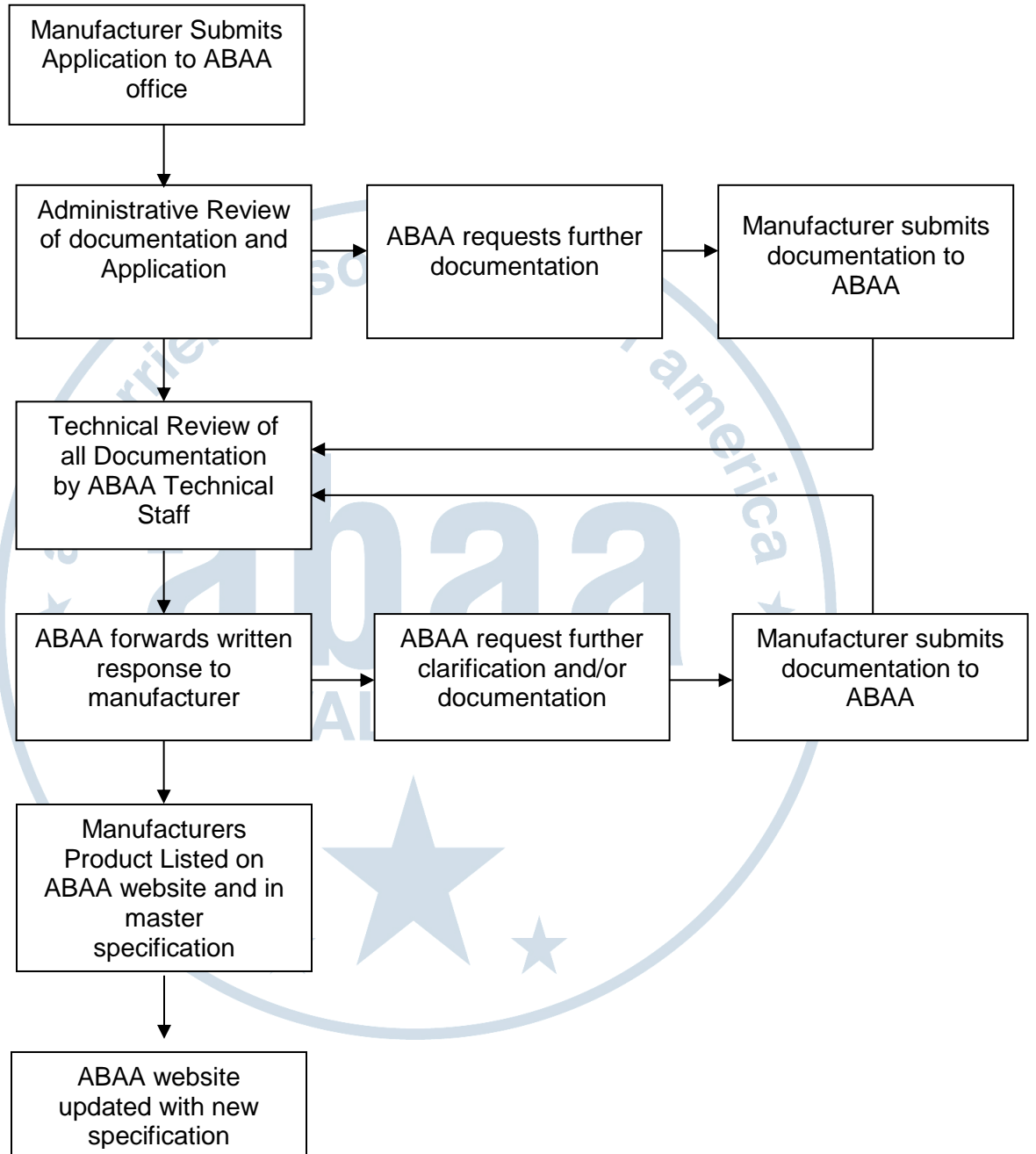
Once the technical review has been completed, an itemized checklist with comments will be forwarded to the ABAA office outlining approval, disapproval or requests for further information or clarification from the manufacturer.

The ABAA office will then forward a written response by email to the manufacturer.

At which time all of the outstanding documentation is received by ABAA, a final review will be conducted to ensure all information has been submitted and test reports comply with the applicable standard.

Once ABAA has deemed all information to have been submitted as per this document, the material will be placed on the ABAA website and in the appropriate master specification within 48 business hours.

### 7.1 Flow Chart- ABAA Process for Evaluation of Air Barrier Materials, Components and Assemblies



## 8.0 Manufacturer Evaluation

Once a manufacturer has gone through the process of having a material, component or assembly listed with ABAA, they would be required to sign a Licensing Agreement that would formalize their requirements to maintain their license.

By being a licensed manufacturer, the manufacturer would be able to promote themselves as such.

On-going maintenance of the licensing would be outlined in their Licensing Agreement which would include such items as:

- a. Maintaining professionalism
- b. Submission of test results and documentation when product changes occur.
- c. Internal audit every three years that would review manufacturers documentation, and
- d. Compliance to the License Agreement

The renewal of the license would occur on a yearly basis which may include the following:

- a. Payment of fees
- b. Declaration / confirmation of air barrier materials, components or assemblies.