

Appendix A

Certified Air Barrier Specialist Knowledge area's

6.3

Job task analysis

The written exam is based on a Job Task Analysis of the air barrier industry. The critical tasks performed by individuals consist of:

- a. ABAA Quality Assurance Program
 - i. To possess knowledge and understanding of the administrative obligations of the QAP program.
 - ii. Familiarity with the QAP Manual.
- b. Building science knowledge:
 - i. Heat flow
 - ii. Moisture flow
 - iii. Airflow
 - iv. Combining all the above
- c. Materials, accessories, and components
 - i. Installation of components in proper sequence and compliance with manufacturer's instructions and technical bulletins
- d. Air barrier details
 - i. Understanding manufacturer's basic details for air barriers
 - ii. Locating air barrier details on drawings
- e. Air barrier design
 - i. Understanding basic air barrier design
 - ii. Identifying critical air barrier system requirements
- f. Project specifications
 - i. Comprehend project specification requirements
 - ii. Explain the hierarchy of contract documents
- g. Building code knowledge
 - i. International Energy Conservation Code - 2018
 - ii. International Building Code 2018
 - iii. International Residential Code 2018
- h. Regional standards
 - i. ASTM E779 Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies

- ii. ASTM E1827 Standard Test Methods for Determining Airtightness of Buildings Using an Orifice Blower Door
 - iii. ASTM E2178 Standard Test Method for Air Permeance of Building Materials
 - iv. ASTM E2357 Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies
 - v. Material property test methods
 - vi. Material specifications
- i. Industry standards
- i. ABAA T0001 Standard Method for Building Enclosure Airtightness Compliance Testing
 - ii. ABAA T0002 Standard Test Method for Pull-Off Strength of Adhered Air and Water Resistive Barriers Using an Adhesion Tester
 - iii. ABAA S0003 Standard for Air Barrier Material - Light Density Open Cell Semi-Rigid Spray Polyurethane Foam - Material Specification
 - iv. ABAA T0004 Standard Test Method for Determining Gap Bridging Ability of Air and Water Resistive Barrier Materials
 - v. ABAA S0005 Standard for Air Barrier Material – Non-Insulating Sheathing - Gypsum Based – Material Specification
 - vi. ABAA S0006 Standard for Air Barrier Material – Mechanically Fastened Engineered Polymer Film – Material Specification
 - vii. ABAA S0007 Standard for Air and Water Resistive Barrier Material - Medium Density Closed Cell Rigid Spray Polyurethane Foam - Material Specification
- j. ABAA material listing requirements
- i. Basic requirements
 - ii. Requirements by material type
- k. Construction site requirements
- i. Safety and health
 - ii. Communication
- l. Installation requirements
- i. Assessment of environmental conditions
 - ii. Assessment of work for compliance to project contract documents
 - iii. Key installation issues
 - iv. Repairs of deficiencies

- m. Contract Documents
 - i. General conditions
 - ii. ABAA model three-part project specifications for air barrier material types
 - iii. Contract requirements
- n. On-site testing of air barriers
 - i. Visual inspection
 - ii. Adhesion/cohesion testing
 - iii. Pull adhesion
 - iv. Density tests
 - v. Air leakage tests
- o. Air barrier project audits
 - i. Audit requirements
 - ii. Audit reporting
 - iii. Correction methods
- p. Commissioning the air barrier system
 - i. Test methods for air leakage of whole buildings
 - ii. Air leakage performance requirements
- q. Correcting air leakage paths
 - i. Identifying the air leakage of a whole building
 - ii. Identifying air leakage by zone
 - iii. Finding specific air leakage paths