FenestrationAssociate® & FenestrationMaster®
CANDIDATE GUIDE

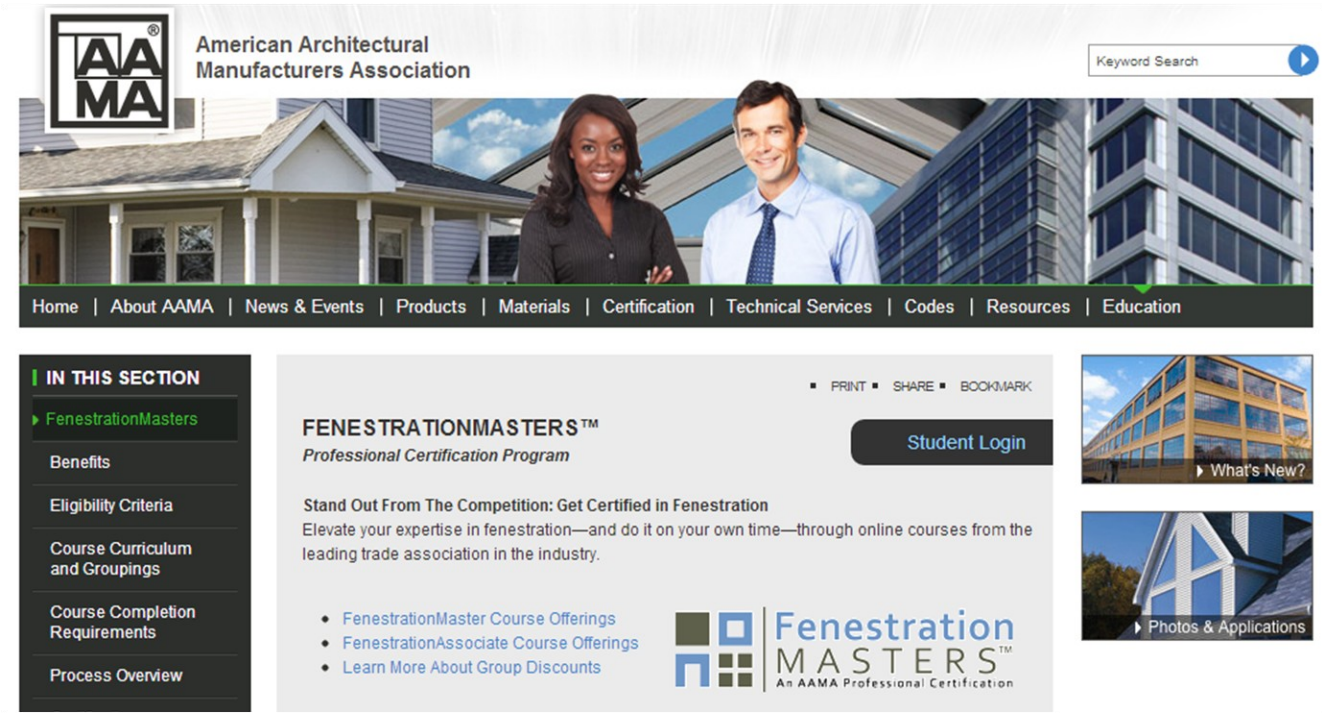
Welcome!

This candidate guide will help you prepare for AAMA FenestrationAssociate and FenestrationMaster certification examinations.

Part I contains general information about exam procedures.

Part II describes the content of these examinations and recommends study materials.

Part III presents a set of sample questions to help candidates prepare for these examinations.



Part I: General Information

PURPOSE OF THE EXAMINATIONS

These examinations have been created to offer industry professionals the opportunity to certify knowledge of products and practices for window, door, skylight, curtain wall and storefront designers, manufacturers and suppliers. Certification is the intended result of online training and validates the expertise of employees and their companies and other industry professionals.

ELIGIBILITY

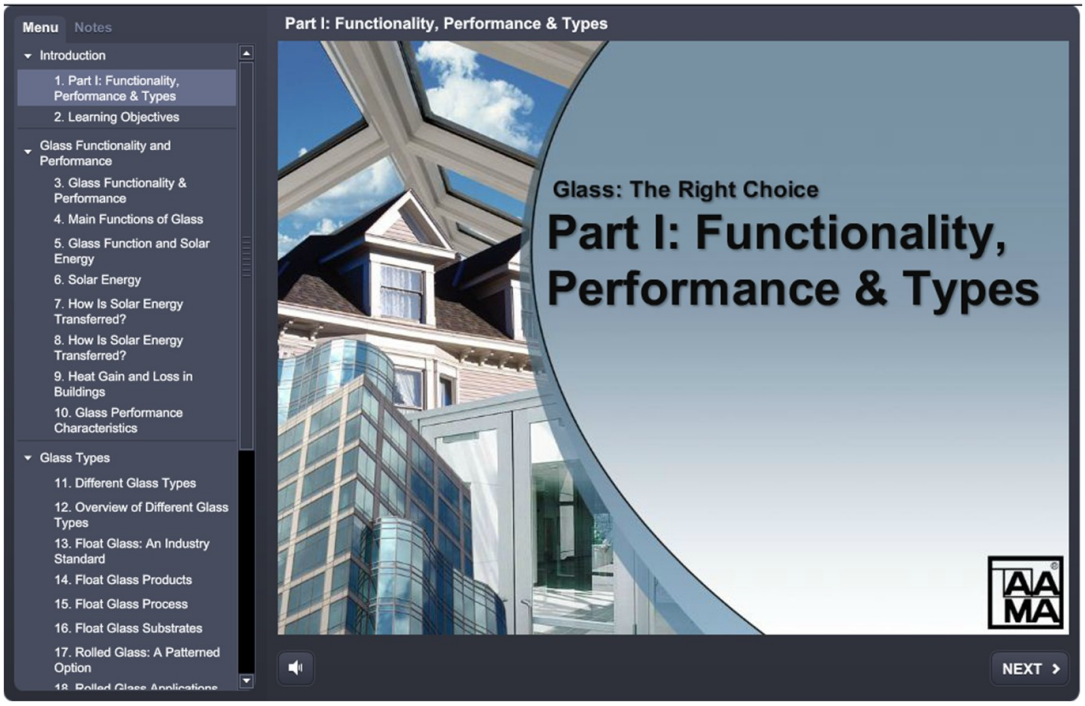
FenestrationAssociate requires no minimum education or experience. For FenestrationMaster candidates, either one of the following will fulfill the prerequisite requirement:

- A 4-year degree in engineering, architecture or applied sciences plus 4 years of industry experience
- *OR* 6 years fenestration product-related experience

COURSES AND EXAM

All FenestrationAssociate and FenestrationMaster candidates must complete the online courses in the prescribed order. Group 1 is considered core course content; therefore, the courses in Group 1 are the same for both the FenestrationAssociate and FenestrationMaster. FenestrationAssociate candidates must then complete overview courses in Groups 2 through 5. FenestrationMaster candidates must complete more advanced courses in Groups 2 through 6.

The FenestrationAssociate exam may include general information from the standards such as can be found in the introductory sections and/or section headings of those documents; therefore, those candidates should review the reference materials (listed in the References and Study Materials section) at that level of detail.



The FenestrationMaster exam may include content/concepts from the standards, as well as content covered in the courses; therefore, those candidates should review the reference materials (listed in the References and Study Materials section) fairly thoroughly.

A subscription to the courses may be purchased on the AAMA website through the online store. Candidates have one year to complete all required coursework. The examination must be taken prior to three months following the expiration of the one-year course subscription. Two additional attempts are permitted within six months of the first attempt with a minimum 30-day interval. If needed, a three-month course subscription extension may be purchased to aid in studying for these exams after the original course subscription has expired. This option is only available to candidates who have completed the coursework during their original one-year course subscription.

EXAM VALIDITY

The content of these examinations has been validated by expert panels of fenestration industry professionals. All exam questions have been subjected to strict psychometric procedures and are based on standards and practices documented and included in fenestration industry standards and online courses.

CODE OF CONDUCT

The AAMA application for FenestrationAssociate or FenestrationMaster certification requires each candidate to agree to follow this Code of Conduct. A candidate's signature on the application represents agreement to abide by these standards to advance the integrity, credibility and recognition of all individuals certified through this program and to adhere to the following professional standards:

- Provide accurate and truthful information related to all aspects of my training, experience and certification.
- Refer to and use my AAMA certification only within the scope of my level of knowledge, skill and experience.
- Apply ethical principles in all my activities related to the FenestrationMasters program, including but not limited to the exam process, confidentiality and potential conflicts of interest.
- Cooperate with AAMA in any inquiry related to possible violations of exam security or this Code of Conduct.
- Follow all AAMA requirements when referring to my certification.
- Act responsibly and with integrity in all professional activities, particularly those that relate to confidentiality.
- Accept responsibility for my own continued professional development.
- Promote training and education of fenestration professionals whom I supervise and work with colleagues to advance the qualifications of all professionals in the fenestration industry.

Possible violations of this Code of Conduct will be reviewed by AAMA and may result in revocation of candidate certification or disqualification for future AAMA certification. Any organized effort to compromise the security or validity of AAMA certification examinations or credentials may result in sanctions against all individuals who may have benefited from such activities.

Fenestration MASTERS®
An AAMA Professional Certification

SCHEDULING AN EXAMINATION

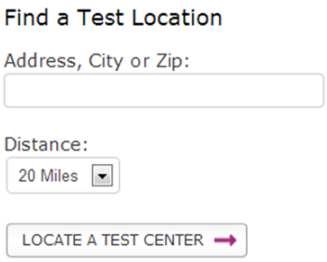
Upon completion of coursework, submit the exam application to FenestrationMasters@aamanet.org.

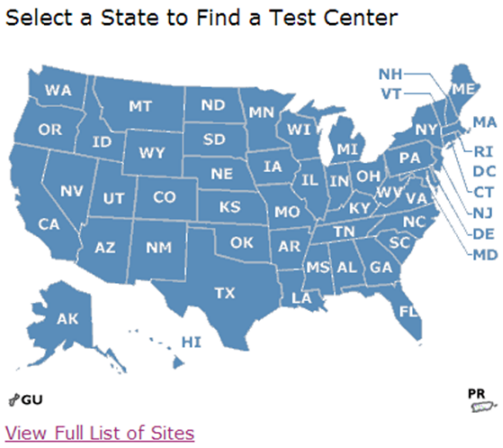
Practice Exam

Once you have applied for the exam, a voucher and link will be provided for one-time access to the complimentary practice exam. The practice exam includes the same number and type of questions as the live exam and is also timed to give candidates an idea of what to expect. Additional vouchers require separate payment.

Exams at Testing Centers

Individuals who successfully complete the required coursework can take an exam at any number of testing centers across the U.S. *There is a separate fee for canceling without 24 hours notice. Candidates must call Comira (not AAMA) directly.* http://candidate.comiratesting.com/comira/sitesearch.php





Exams at AAMA Events

In conjunction with AAMA National Conferences, AAMA staff administer exams outside of established testing centers. For those who register and attend, no additional fees will be required to take the exam in conjunction with the event. For more information, contact FenestrationMasters@aamanet.org.

EXAM CONDITIONS

Delivery of computer exams will meet the following specifications:

- Each exam station will have a suitable internet connection and provide sufficient privacy to meet the requirements for secure testing.
- The room will provide a quiet, suitably lit and comfortable space to allow candidates to concentrate on exam content with no interruptions or distractions.
- Each candidate will have sufficient work space to allow use of any approved references. Printed copies of these references are required because the exam software “locks down” each computer during the exam to prevent access to other programs or internet sites.
- If more than one candidate is to take the exam at a time, each computer exam station will be sufficiently separated to assure the security and privacy of each candidate.
- Each candidate must complete the exam with no interaction with other candidates or help with exam content from a proctor.
- Only the proctor and up to seven candidates are permitted in the exam room while an AAMA certification examination is underway.

WHAT TO BRING TO THE EXAM

All proctors are required to verify the identity of each candidate and to protect the security and validity of the examinations. Unless already well known to the proctor, each candidate must present *TWO FORMS OF IDENTIFICATION* consisting of at least one valid government-issued ID with photo of the candidate and both versions with signatures that can confirm that the person registered is actually taking the exam. Exam stations are "locked down" during the exam to prohibit any access to online sources or websites. Candidates may bring printed copies of applicable AAMA standards and/or notes prepared while taking the required coursework to the exam. *This includes the Study Notebook.*

However, please note that the exam is timed. Use your best judgment in determining the proper materials to bring to the exam as it is not likely that the available time will allow for all answers to be researched. It is recommended to bring documents related to areas of the course content where a candidate feels supplemental information will be helpful.

Bags and other personal items must be stored during the exam, and some testing centers also have limitations to the space for an individual's exam area.

PROHIBITED ITEMS IN THE EXAM

All pens/pencils, cell phones, computers (other than that used for the exam), calculators, flash drives, CDs or other digital memory devices are prohibited in the exam room during an AAMA examination. These items (along with personal items, such as bags, computer cases, etc.) must be placed in locked storage or left with the proctor during the exam.

LENGTH OF EXAMS & TIME LIMITS

FenestrationAssociate exam consists of 100 questions. Candidates have two uninterrupted hours to complete the exam. FenestrationMaster exam consists of 150 questions. Candidates have three uninterrupted hours to complete the exam.

TAKING THE EXAM

Each question will appear on the computer screen one at a time. You can record your answer to a question, skip the question or mark it for later review. You can return to questions you have skipped or marked for review at any time during the exam. Remaining time and progress will be displayed on the screen throughout the exam. After you indicate that you have finished answering and reviewing questions, you may end the exam. The exam will end automatically if your time expires.

You will see your exam results on-screen when you finish and receive a copy of your scores by email after the exam.

CANDIDATE COMMENTS AFTER AN EXAM

After you finish the exam, a short survey will follow to gather information about your AAMA exam experience. This is the best method of providing feedback to AAMA about exam content or delivery. AAMA uses these comments to improve the program. You are encouraged to participate.

ACHIEVING CERTIFICATION

All AAMA test results are reported using the same scaled (or converted) scores. AAMA uses a scaled scoring system to eliminate differences that may occur between test forms. The percentages for each Group are not raw scores. Please do not interpret these percentages as such.

AAMA test scores have the following properties:

1. Scores range from 0 to 100.
2. A scaled score of 70 is required to pass FenestrationAssociate exams.
3. A scaled score of 70 is required to pass FenestrationMaster exams.

Candidates who achieve a passing score on the exam receive either the FenestrationMaster® Professional Certification (FMPC) or the FenestrationAssociate® Professional Certification (FAPC) credential. Each certification is valid for four years.

Candidates achieving certification will receive a certificate, a Marketing Guide containing information about use of the FenestrationMaster/FenestrationAssociate logo as well as the respective Logo Licensing Agreement, FMPC/FAPC letter designation, press release templates for their use and an opportunity to be listed on the AAMA website.

FAPC

This certifies that

Angela Dickson

earned the AAMA professional designation of

FenestrationAssociate® Professional Certification

on **January 1, 2016**
by completing all course requirements and
passing the certification exam.

Angela has completed 11 LU/HSW credits of AIA-approved education and 11 hours (1.10 credits) of ICC-approved continuing education.

American Architectural Manufacturers Association

Richard Walker
AAMA President and CEO

Fenestration ASSOCIATE®
An AAMA Professional Certification

Expires January 1, 2020

MISSING AN EXAM

Examinations at a Comira Testing Center or an AAMA-sponsored event require staffing, exam stations and other expenses even if a candidate does not appear for the exam. There are no refunds for missing an exam in these locations. If the exam is cancelled at least 24 hours prior to the scheduled date, the fees may be applied to a future re-scheduled exam. **There is a $150 fee for canceling without appropriate notice**.

SCHEDULING A RE-TEST

Candidates who fail an examination receive information to help them identify weak content areas and prepare for another attempt. Candidates are encouraged to study and retake the examination since many who initially fail such an exam are able to pass on a later re-test.

Candidates may schedule up to two additional attempts within six months of the original exam date. There must be at least 30 days between each attempt. If needed, a three-month subscription extension may be purchased to aid in studying for the exam if the original course subscription has expired. For security reasons, AAMA examinations are provided in multiple forms. After three failed attempts, a new one-year subscription and exam must be purchased. The full coursework also must be completed before another retest will be scheduled.

Once the candidate feels prepared to retake the exam, the first page of the exam application must be submitted to FenestrationMasters@aamanet.org with the preferred date and location. (There is no need to resubmit eligibility, as that information is already on file.)

AAMA staff will review the application in order to authorize the re-test. The re-test fee is $150. Payment may be provided along with the application via the credit card authorization form. AAMA only communicates score reports to the candidate.

If part of a group order, AAMA will only inform your supervisor of a passing score. Contacting your supervisor regarding this initial attempt will be at your own discretion.

REQUESTS FOR SPECIAL EXAM ACCOMMODATIONS

Candidates who are unable to complete an AAMA exam under standard conditions must submit documentation to support their request for special accommodations. This request must specify the modifications of exam procedure the candidate believes are appropriate and must be submitted with the initial exam application.

DISCIPLINARY ACTION

Following any report of possible irregularities, AAMA staff will review the evidence and determine whether to cancel scores, offer a retest with or without payment of additional exam fees or take disciplinary action. Such actions may be appealed as described in these procedures.

AAMA may reject or suspend the eligibility of any candidate, suspend or revoke certification, or refuse to recertify any person who is found to have engaged in any violations of the Code of Conduct.

APPEALS PROCESS

Candidates may appeal AAMA certification decisions in writing using U.S. Mail or email within 14 days after their examination date. AAMA will respond in writing to all appeals after review of the candidate's results.

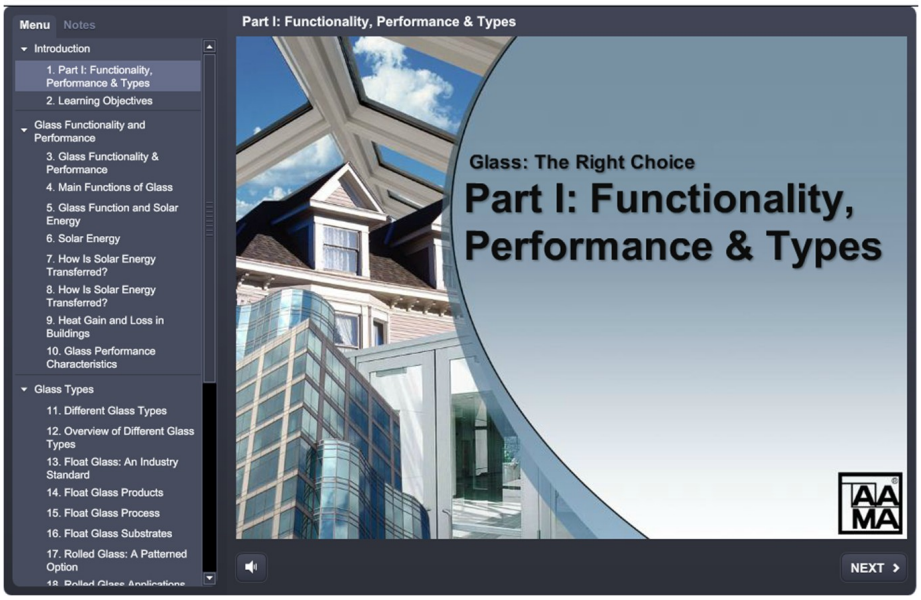
For more information, visit www.aamanet.org/FenestrationMasters.

Part II: Course and Exam Content

All FenestrationAssociate and FenestrationMaster candidates must complete the online courses in the prescribed order. Group 1 is considered core course content; therefore, the courses in Group 1 are the same for both the Fenestration-Associate and FenestrationMaster.

FenestrationAssociate candidates must then complete overview courses in Groups 2 through 5 on the next page in the prescribed order.

FenestrationMaster candidates must complete more advanced courses in Groups 2 through 6.



Group	Course Topics	Associate Questions	Master Questions
1	Window Selection Glass Selection Requirements of NAFS-08 Standard Specialty Tests (blast, impact, tornado, acoustics)	33 questions	30 questions
2	Profile Performance and Material Considerations Coatings and Finishes	17 questions	30 questions
3	Hardware, Weatherstrip and Weatherseals Sealants and Adhesives Used during Factor Fabrication	17 questions	30 questions
4	Code Requirements History of the I-Codes & Current Requirements AAMA Certification and I-Code Compliance Special Code Requirements: ADA, WOCD, fire safety, safety glazing Energy Efficiency/Thermal Performance ICC energy code requirements and Energy Star requirements Thermal Performance Certification versus Testing Skylights and Daylighting	11 questions	15 questions
5	Installation Commercial Installation Standard Practice Residential Installation Flashing Field Testing and Forensic Evaluation Fenestration Anchorage	22 questions	33 questions
6	*FenestrationMaster Only* Aluminum Curtain Wall Design Guide Aluminum Storefront and Entrance Manual Energy and the Architectural Fenestration Industry	None	12 questions
	Total Questions on the Exam	100 questions	150 questions

REFERENCES AND STUDY MATERIALS

The FenestrationAssociate exam may include general information from the standards such as can be found in the introductory sections and/or section headings of those documents; therefore, those candidates should review the reference materials (listed on page 10) at that level of detail.

The FenestrationMaster exam may include content/concepts from the standards, as well as content covered in the courses; therefore, those candidates should review the reference materials (listed on page 10) fairly thoroughly.

FenestrationAssociate® & FenestrationMaster®
CANDIDATE GUIDE

AAMA VIRTUAL LIBRARY

AAMA Category 1, Technical Consultant and Professional members are eligible to purchase an annual subscription to the AAMA Virtual Library (AVL) in order to view and print standards referenced in the FenestrationMasters program curriculum.

- FenestrationMasters Program Documents Only: $250
- FenestrationMasters Program Add-on (for existing AVL customers only): $50

AAMA STUDY RESOURCES CENTER

Candidates who do not qualify for the AVL may purchase three-month access to the AAMA Study Resource Center. This allows read-only access to the documents listed below. If candidates would like a printed version, documents may be purchased individually through the AAMA online store. AAMA members receive significant discounts on online store purchases:

- FenestrationAssociate: $100 (member)/$250 (non-member)
- FenestrationMaster: $150 (member)/$375 (non-member)

Group	Course Topics	Resources		
All	Overall	AAMA Glossary AAMA Publications Catalog		
1	Window Selection Glass Selection Requirements of NAFS-08 Standard (with variations from earlier editions) Specialty Tests (blast, impact, tornado, acoustics)	WSG-11 NAFS-08	510-06 506-11	512-11 1801-11
2	Profile Performance and Material Considerations Coatings and Finishes	303-08 305-11 308-08 310-04 311-05 611-12 612-02	2603-02 2604-10 2605-11 613-08 614-05 615-05	623-10 624-10 625-10 307-11 312-05
3	Hardware, Weatherstrip and Weatherseals Sealants and Adhesives Used during Factory Fabrication	800-10 701/702-11 901-10 902-07	904-09 906-07 907-12	908-09 910-10 920-11
4	Code Requirements Energy Efficiency and Thermal Performance Skylights for Daylighting	No reference materials other than course content		
5	Installation Commercial Installation Standard Practice Residential Installation Flashing & Sealants for Installation Field Testing and Forensic Evaluation Fenestration Anchorage	501.2-09 502-12 503-08 511-08 IPCB-08 TIR-A14-10	2400-10 2410-13 2501-06 711-07 712-11 713-08	714-11 812-04 100-07 200-09 300-12
6	*FenestrationMaster Only* Aluminum Curtain Wall Design Aluminum Storefronts and Entrances Energy and the Architectural Fenestration Industry	CW-DG-1-96 SFM-1-87		

Part III: Sample Exam Questions

FenestrationAssociate

All questions on these examinations are multiple choice with one correct answer and three incorrect choices. Choose the best answer to each question.

1. Which of the following has the most significant impact on Solar Heat Gain Coefficient (SHGC)?
   A. Window type
   B. Glass type
   C. Frame material
   D. Silicone type

2. Per AAMA 307, which of the following tests is NOT required for both interior and exterior laminates?
   A. Muriatic acid resistance
   B. Mortar resistance
   C. Detergent resistance
   D. Isopropyl alcohol resistance

3. Which of these is the upper limit of the MAFR derived from tests if a balance is to receive a Class 5 rating?
   A. 0.30
   B. 0.70
   C. 0.50
   D. 1.00

4. Which of these is required for window opening control devices?
   A. They must be no greater than 4” in diameter.
   B. They must be brightly marked.
   C. They must be designed with release mechanisms to allow for emergency escape.
   D. They must be able to meet ADA requirements.

5. Per ASTM E 2112, how close must the framing members comprising the rough opening be to plumb, level, square and true prior to the installation of the window?
   A. Within 3 mm (1/8”)
   B. Within 6 mm (1/4”)
   C. Within 9 mm (3/8”)
   D. Within 12 mm (1/2”)

FenestrationMaster

All questions on these examinations are multiple choice with one correct answer and three incorrect choices. Choose the best answer to each question.

1. What is the relationship between U-factor and R-Value?
   - A. R-Value = 1/U factor
   - B. U-factor = R-Value
   - C. R-Value + U-factor = 1
   - D. They are unrelated

2. Which in-process quality control test for cellulosic composite profiles is *NOT* required?
   - A. Screw withdraw
   - B. Dimensional stability
   - C. Thermal cycling
   - D. Muriatic acid resistance

3. What is the maximum Shore "A" hardness value for Types I and II and Groups A and C back bedding glazing compounds?
   - A. All are 70
   - B. All are 55
   - C. 55 for Types I and II, 70 for Groups A and C
   - D. 70 for Types I and II, 55 for Groups A and C

4. Per IECC 2009 using the prescriptive method, what is the maximum allowable skylight to roof area ratio?
   - A. 5%
   - B. 10%
   - C. 3%
   - D. 15%

5. Which of these best describes manufacturer's installation instructions for a commercial installation?
   - A. The best practice
   - B. A requirement
   - C. A recommendation
   - D. Consistent with the code

6. What is the laboratory test most used to determine the water penetration resistance of standard and low-rise custom curtain walls?
   - A. AAMA 501.1
   - B. ASTM E 1105
   - C. Dynamic water testing
   - D. ASTM E 331

Answer Key: FenestrationAssociate

FenestrationAssociate Sample Exam Questions

Question/Answer

1: **B**
2: **D**
3: **A**
4: **C**
5: **B**

References
1: AAMA WSG-11, 3.6.2
2: AAMA 307-11, 4.2 & 4.3
3: AAMA 902-07, 9.0
4: 2009 IRC Section 612.4
5: AAMA 2400-10, Section 5.1

Answer Key: FenestrationMaster

FenestrationMaster Sample Exam Questions

Question/Answer

1: **A**
2: **D**
3: **C**
4: **A**
5: **B**
6: **D**

References
1: AAMA ICPB-08 2.7, Design Considerations Slide 27
2: AAMA 311-05, Section 6.0
3: AAMA 800-10, 1.1.4.1
4: Building and Energy Codes, page 25
5: AAMA IPCB-08, Section 10.0
6: AAMA CW-DG-1-96, page 41

Certification Exam Application

Candidate Name: _____ Company: _____

Candidate Checklist

Read and understand the Candidate Guide, including the Code of Conduct (on page two)

Complete and sign the Candidate Affidavit (as shown on the next page)

FenestrationMaster Candidates Only: Validation of experience and/or education

Requested Certification Exam (based upon courses completed)*

☐ FenestrationMaster (advanced level) ☐ Fenestration Associate (entry level)

** Course transcripts will be verified to ensure successful completion of all applicable courses.*

Preferred Exam Location

The initial exam must be taken within three months from the expiration of the 12-month course subscription. Please be prepared to provide two forms of identification, consisting of at least one valid government-issued ID with photo of the candidate and both versions with signatures that can confirm that the person registered is actually taking the exam.

Preferred Examination Date ___/___/____

Preferred Examination Time** _____

*** Please arrive at least 15 minutes prior to the scheduled exam so the proctor can audit any AAMA standards that may be used during the exam and to complete a brief tutorial related to the exam. This also allows for variations in testing center volume.*

Exam Location: Search for your preferred location based upon the availability of testing centers in your area or list the AAMA-sponsored event where you will be taking the exam.

Comira Facility Name or AAMA-sponsored Event _____

Address _____

City, State, ZIP _____

Has the exam been taken previously? Yes*** ☐ No ☐

If yes, how many times? _____

**** After the initial certification exam failure, candidates may schedule up to two additional attempts within six months of the original exam date. There must be at least 30 days between each attempt.*

Candidate Affidavit

By signing below, you confirm that you have read and understand the candidate guide, including what materials to bring to the exam and prohibited items.

Adherence to Code of Conduct

Application for FenestrationAssociate or FenestrationMaster certification requires each candidate to agree to follow the Code of Conduct (on page three of this document). Your signature on this application represents agreement to abide by these standards to advance the integrity, credibility and recognition of all individuals certified through this program and to adhere to the following professional standards.

Possible violations of this Code of Conduct will be reviewed by AAMA and may result in revocation of candidate certification or disqualification for future AAMA certification. Any organized effort to compromise the security or validity of AAMA certification examinations or credentials may result in sanctions against all individuals who may have benefited from such activities.

_____ _____

Signature Date

FenestrationMaster Candidate Only

Candidate must confirm eligibility (based upon education and/or experience), which can be provided to AAMA from the following sources. Check the relevant box for the method chosen. **This step is not optional. Documentation must be included with the exam application.** Paperwork will be kept on file for at least the duration of the certification term.

☐ HR representative
☐ Other reasonable third-party verification, such as a supervisor (not serving as proctor)
☐ Candidate as long as signed/stamped by notary public

Your signature above indicates that the information provided is accurate and complete to the best of your knowledge.

Submission Instructions

Submit this application, affidavit and eligibility verification (for FenestrationMaster candidates) to FenestrationMasters@aamanet.org to initiate scheduling a certification exam.