

FenestrationAssociate® and FenestrationMaster® 2.0 CANDIDATE GUIDE

Welcome!

This candidate guide will help program participants prepare for the FGIA FenestrationAssociate and FenestrationMaster version 2.0 certification exam.

Part I contains general information about exam procedures

Part II contains the content of these exams and recommended study materials

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



FGIA FenestrationMasters® 2.0

Part I: General Information

PURPOSE OF THE EXAMS

These exams 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, any **ONE** of the following will fulfill the prerequisite requirement:

- 4 years fenestration product-related experience and either a Professional Engineering license or 4-year degree in engineering, architecture or applied sciences
- 5 years fenestration product-related experience and one year as a credentialed FenestrationAssociate
- 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 2–5. FenestrationMaster candidates must complete more advanced courses in Groups 2–6.

Certification candidates must complete all applicable coursework and take the exam within 12 months of enrollment. **In addition to completing each lesson's post-assessment, each lesson needs to be played in its ENTIRETY for that lesson to show as complete.**

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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 plus exam may be purchased on the FGIA website through the online store. Candidates have 12 months to complete all required coursework and take the exam. If needed, a three-month course subscription and exam extension may be purchased if the coursework and exam will not be completed by the original 12-month course subscription expiration date.



EXAM VALIDITY

The content of these exams 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. For security reasons, FGIA exams are provided in multiple forms.

CODE OF CONDUCT

The FGIA application for FenestrationAssociate or FenestrationMaster certification requires each candidate to agree to follow this Code of Conduct. A candidate's signature on the affidavit 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 FGIA 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 FGIA in any inquiry related to possible violations of exam security or this Code of Conduct.
- Follow all FGIA 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 FGIA and may result in revocation of candidate certification or disqualification for future FGIA certification. Any organized effort to compromise the security or validity of FGIA certification exams or credentials may result in sanctions against all individuals who may have benefited from such activities.

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PRACTICE EXAM

A complimentary practice exam is included with a course subscription and exam bundle order. **Please note that the practice exam may only be LAUNCHED one time.** Additional access to the practice exam may be purchased by contacting education@fgiaonline.org.

ONLINE PROCTORED EXAM (OPEN-BOOK)

All FenestrationMasters Program exams are administered online with a live remote proctor. Please reference the [FGIA Online Proctored Exam Guide](#) for complete details about scheduling exams, system requirements and the online proctored exam experience.

WHAT TO BRING TO THE EXAM

Proctors are required to verify each candidate's identity and protect the security and validity of the open-book exams. Each candidate must present a valid government-issued ID with photo of the candidate and signature that can confirm that the person registered is actually taking the exam. It is suggested that candidates also have a second form of ID with signature available.

Proctors will secure the exam workstation/space (multiple screens are **not** allowed) based on the established exam rules. Candidates may use printed or electronic copies of applicable AAMA standards and/or notes prepared while taking the required coursework for the exam. ***This includes the Study Notebook and virtual library documents. Bathroom breaks are allowed, as well as the use of hybrid desks to alternate between sitting/standing.*** Notify the proctor directly or via chat to utilize either of these options. **A secondary security check will apply after each bathroom break.**

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

PROHIBITED ITEMS IN THE EXAM

All pens/pencils, cell phones, computers (other than that used for the exam) and calculators, are prohibited while taking the exam. These items (along with personal items, such as bags, computer cases, etc.) must be out of reach during the exam.

LENGTH OF EXAMS & TIME LIMITS

FenestrationAssociate exam	FenestrationMaster exam
100 questions	150 questions
Two uninterrupted hours to complete the exam	Three uninterrupted hours to complete the exam

TAKING THE EXAM

Each question will appear on the computer screen one at a time. Candidates can record their answer to a question, skip the question or mark it for later review. Candidates can return to questions they have skipped or marked for review at any time during the exam. Remaining time will be displayed on the screen throughout the exam.

After the candidate has finished answering and reviewing questions, they must notify the proctor and then submit the exam. The exam will end automatically if the time expires. Candidates must not disconnect from the proctor until instructed to do so.

Exam results may be viewed immediately after exiting the proctoring session by logging into the FGIA Learning Center and navigating back to the exam area. Exception: If an exam has been flagged by a proctor, FGIA will contact the candidate with the results within two to three business days. FGIA only communicates score reports to the candidate. If part of a group order, FGIA will only inform the group order contact of a passing score. Contacting a supervisor regarding an initial exam attempt is at the candidate's discretion.

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CANDIDATE COMMENTS AFTER AN EXAM

An exam results verification will be emailed by FGIA and includes a short survey to gather information about the FGIA exam experience. This is the best method of providing feedback to FGIA about exam content or delivery. FGIA uses these comments to improve the program. Candidates are encouraged to participate.

ACHIEVING CERTIFICATION

All FGIA test results are reported using percentage scores.

FGIA test scores have the following properties:

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



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 receive a certificate, a Marketing Guide containing information about the use of the FenestrationMaster/FenestrationAssociate logo as well as the respective Logo License Agreement, and a press release template for their use and an opportunity to be listed on the FGIA website. The FMPC/FAPC letter designations are also authorized for use.

SCHEDULING A RE-TEST

If a minimum passing score of 70 is not achieved on the initial exam attempt, up to two additional attempts are permitted no more than 90 days from the initial attempt.

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

After three failed attempts, a new 12-month subscription and exam bundle must be purchased. The full course-work must be completed again before another exam may be scheduled.

Once the candidate feels prepared to re-take the exam, the process is initiated by purchasing a new exam attempt in the FGIA online store with a provided link.

FGIA staff will review online order to authorize the re-test and send a confirmation email to the candidate.

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REQUESTS FOR SPECIAL EXAM ACCOMODATIONS

Candidates who are unable to complete an FGIA 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 prior to scheduling an exam.

DISCIPLINARY ACTION

Following any report of possible irregularities, FGIA 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. FGIA 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 FGIA certification decisions in writing using U.S. Mail or email within 14 days after their examination date. FGIA will respond in writing to all appeals after review of the candidate's results.

1900 East Golf Road, Suite 1250, Schaumburg, IL 60173

education@fgiaonline.org

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 FenestrationAssociate and FenestrationMaster.

FenestrationAssociate candidates must then complete overview courses in Groups 2–5 on the next page in the prescribed order. FenestrationMaster candidates must complete more advanced courses in Groups 2–6.

Group	Course Topics	Associate Questions	Master Questions
1	Window Selection Glass Selection Requirements of NAFS-17 Standard (with variations from earlier editions) Specialty Tests (blast, impact, tornado, acoustics) Selection and Application Guide for Plastic Glazed Skylights and Sloped Glazing	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 Energy Efficiency/Thermal Performance Skylights for Daylighting	11 questions	15 questions
5	Installation - Commercial Installation Standard Practice - Residential Installation - Flashing & Sealants Field Testing and Forensic Evaluation Fenestration Anchorage	22 questions	33 questions
6	<i>FenestrationMaster Only</i> Aluminum Curtain Wall Design Guide Aluminum Storefronts and Entrances Energy and the Architectural Fenestration Industry	None	12 questions
Total Questions on the Exam		100 questions	150 questions

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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 below) 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 below) fairly thoroughly.

FGIA VIRTUAL LIBRARY

Candidates who purchase a course subscription and exam bundle will receive FREE 12-month, read-only access to the FenestrationMasters Virtual Library, which includes electronic versions of over 50 technical documents referenced in the FenestrationAssociate and FenestrationMaster curriculum. The option to print these documents in order to study for the exam and to bring into the exam as reference material is available for purchase, and a license agreement must be completed for the electronic-only and the print-enabled access options of the FenestrationMasters Virtual Library. Email education@fgiaonline.org to initiate this process.

- FenestrationMasters Program Documents View-Only Access: FREE
- FenestrationMasters Program Documents Print-Friendly Access
 - Master-level: FGIA member - \$150, non-member - \$300
 - Associate-level: FGIA member - \$100, non-member - \$200

Group	Course Topics	Resources		
All	Overall	AAMA Glossary AAMA Publications Catalog		
1	Window Selection Glass Selection Requirements of NAFS-17 Standard (with variations from earlier editions) Specialty Tests (blast, impact, tornado, acoustics) Selection and Application Guide for Plastic Glazed Skylights and Sloped Glazing	WSG-11 NAFS-17 510-14	506-16 450-10	1801-13 PSSG-19
2	Profile Performance and Material Considerations Coatings and Finishes	303-18 305-18 307-16 308-16 310-12 311-13 312-14	1506-18 2603-17a 2604-17a 2605-17a 611-14 612-17a 623-17a	624-17a 625-17a 653-17a 613-17a 614-17a 615-17a 633-17a
3	Hardware, Weatherstrip and Weatherseals Sealants and Adhesives Used during Factor Fabrication	701-702-11 800-16 901-16 902-16	904-14 906-18 907-15 908-16a	910-16 920-16 925-17
4	Code Requirements Energy Efficiency/Thermal Performance Skylights and Daylighting	1503-09		
5	Installation Commercial Installation Standard Practice Residential Installation Flashing & Sealants for Installation Field Testing and Forensic Evaluation Fenestration Anchorage	711-13 712-14 714-15 812-04 2400-10 2410-13	300-12 IPCB-08 100-12 200-12 500-16 501.2-15	502-12 503-14 511-08 TIR A1415 2501-06
6	<i>FenestrationMaster Only</i> Aluminum Curtain Wall Design Guide Aluminum Storefronts and Entrances Energy and the Architectural Fenestration Industry	CWM-19 SFM-1-14		

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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 1/8"
 - B. Within 1/4"
 - C. Within 3/8"
 - D. Within 1/2"

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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 & C
 - D. 70 for Types I and II, 55 for Groups A & C
4. Per IECC 2018 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

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Answer Key: FenestrationAssociate

FenestrationAssociate Sample Questions

Question/Answer	References
1: B	1: AAMA WSG-11, Section 3.6.2
2: D	2: AAMA 307-16, Section 4.2 & 4.3
3: A	3: AAMA 902-6, Section 9.0
4: C	4: Building Codes, Part 1, Slide 15
5: B	5: AAMA 2400-10, Section 5.1

Answer Key: FenestrationMaster

FenestrationMaster Sample Exam Questions

Question/Answer	References
1: A	1: AAMA IPCB-08, Section 2.6.2, Window Selection Guide, Part IV, Slide 5
2: D	2: AAMA 311-13, Section 6.0
3: C	3: AAMA 800-16, Section 5.1, Table 1: Product Requirements
4: C	4: Building Codes, Part II, Slide 18c
5: B	5: AAMA IPBC-08, Section 10.0
6: D	6: AAMA CW-DG-1-96, page 41