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

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.
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.
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
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
All proctors are required to verify the identity of each candidate and to protect the security and validity of the 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 evaluate and secure the exam workstation 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.

However, please note that the exam is timed. Use 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

<table>
<thead>
<tr>
<th>Exam Type</th>
<th>Number of Questions</th>
<th>Time Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FenestrationAssociate exam</td>
<td>100 questions</td>
<td>Two uninterrupted hours to complete the exam</td>
</tr>
<tr>
<td>FenestrationMaster exam</td>
<td>150 questions</td>
<td>Three uninterrupted hours to complete the exam</td>
</tr>
</tbody>
</table>

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.
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 coursework 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.
REQUESTS FOR SPECIAL EXAM ACCOMMODATIONS

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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Course Topics</th>
<th>FenestrationAssociate Questions</th>
<th>FenestrationMaster Questions</th>
</tr>
</thead>
</table>
| 1     | Window Selection  
Glass Selection  
Requirements of NAWS-17 Standard (with variations from earlier editions)  
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     | FenestrationMaster Only  
Aluminum Curtain Wall Design Guide  
Aluminum Storefronts and Entrances  
Energy and the Architectural Fenestration Industry | None | 12 questions |

Total Questions on the Exam

FenestrationAssociate: 100 questions  
FenestrationMaster: 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 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

<table>
<thead>
<tr>
<th>Group</th>
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<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Overall</td>
<td>AAMA Glossary AAMA Publications Catalog</td>
</tr>
<tr>
<td>2</td>
<td>Profile Performance and Material Considerations Coatings and Finishes</td>
<td>303-18 305-18 307-16 309-16 310-12 311-13 312-14 1506-17 2601-17a 2604-17a 2605-17a 2605-17a 611-14 612-17a 623-17a 624-17a 625-17a 653-17a 613-17a 614-17a</td>
</tr>
<tr>
<td>3</td>
<td>Hardware, Weatherstrip and Weatherseals Sealants and Adhesives Used during Factor Fabrication</td>
<td>901-16 902-16 901-16 902-16 901-16 902-16 901-16 902-16 906-18 907-15 908-16a 910-16 920-16 920-17</td>
</tr>
<tr>
<td>4</td>
<td>Code Requirements Energy Efficiency/Thermal Performance Skylights and Daylighting</td>
<td></td>
</tr>
</tbody>
</table>
FenestrationAssociate® and FenestrationMaster® 2.0
CANDIDATE GUIDE

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”
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. $R–Value = 1/U\text{ factor}$
   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 backbedding 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
### Answer Key: FenestrationAssociate

FenestrationAssociate Sample Questions

<table>
<thead>
<tr>
<th>Question/Answer</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: B</td>
<td>1: AAMA WSG−11, Section 3.6.2</td>
</tr>
<tr>
<td>2: D</td>
<td>2: AAMA 307−16, Section 4.2 &amp; 4.3</td>
</tr>
<tr>
<td>3: A</td>
<td>3: AAMA 902−6, Section 9.0</td>
</tr>
<tr>
<td>4: C</td>
<td>4: Building Codes, Part 1, Slide 15</td>
</tr>
<tr>
<td>5: B</td>
<td>5: AAMA 2400−10, Section 5.1</td>
</tr>
</tbody>
</table>

### Answer Key: FenestrationMaster

FenestrationMaster Sample Exam Questions

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