

FenestrationAssociate® and FenestrationMaster® 3.0 CANDIDATE GUIDE

Welcome!

This candidate guide will help program participants prepare for the FGIA FenestrationAssociate and FenestrationMaster version 3.0 certification exams.

[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® 3.0

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 coursework before attempting the certification exam. Candidates will have a full 12 months to complete the coursework, with an additional 3-month extension available for purchase as needed. **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 coursework has an estimated runtime of 19.5 hours, with the FenestrationMasters course having a 23 hour estimated runtime.

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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 Learning Center website. 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.



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.

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. Additional access to the practice exam may be purchased within your course on the Learning Center website.

ONLINE PROCTORED EXAM (OPEN-BOOK)

All FenestrationMasters Program exams are administered online with a 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

The online proctoring service will 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.

Candidates will be instructed to secure the exam workstation/space (multiple screens are **not** advised) 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.

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

During the exam, questions will appear in sections of ten at a time. Candidates can record their answer to a question or leave it unanswered for later review. Candidates can return to questions they have skipped at any time during the exam. Remaining time and answered questions per section will be displayed on the screen throughout the exam.

After the candidate has finished answering and reviewing questions, they will be able to verify that they have completed the exam and the session will close. The exam will end automatically if the time expires.

Exam results may be viewed immediately after submitting the exam, including which correct answers were submitted by the candidate. **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

Passing candidates will receive a congratulatory email from FGIA that includes a short survey to gather information about their experience. This is the best method of providing feedback to FGIA about the program and exam 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 within the applicable subscription period.

Candidates who fail an exam 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 Learning Center using the "Need Another Exam?" link within the exam section of their course.

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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 modified exam procedures 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.

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education@fgiaonline.org

Part II: Course and Exam Content

All FenestrationAssociate and FenestrationMaster candidates must complete the online course in its entirety before taking the exam. The FenestrationAssociate course is considered core content for the program, with the FenestrationMaster course including several additional "Deeper Dive" modules containing more technical information.

Group	Course Topics	Associate Questions	Master Questions
1	Fenestration Fundamentals Specifying Windows, Doors, and Skylights using NAFS Special Performance Challenges Skylights and Sloped Glazing	27	35
2	Glass Fundamentals Understanding Insulating Glass Systems	13	18
3	Profile Performance A Deeper Dive into Profile Performance* Finishing Touches A Deeper Dive into Finishing Touches*	13	28
4	Hardware A Deeper Dive Into Hardware* Fenestration Components A Deeper Dive into Sealants and Adhesives*	12	18
5	U.S. Codes and Energy A Deeper Dive into US Codes and Energy* Canadian Codes and Energy	11	15
6	Installation A Deeper Dive Into Installation* Anchorage and Field Testing	13	18
7	Storefronts and Entrances A Deeper Dive Into Storefronts And Entrances* Curtain Wall Energy and High-Performance Technology	11	18
Total Questions on the Exam		100 Questions	150 Questions

* FenestrationMaster Level Only

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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 90 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. Download and fill out the applicable license agreement from within your course and email it to education@fgiaonline.org to initiate this process.

- FenestrationMasters Program Documents View-Only Access: FREE
- FenestrationMasters Program Documents Print-Friendly Access
 - o Master-level: FGIA member - \$178, non-member - \$353
 - o Associate-level: FGIA member - \$128, non-member - \$253

Group	Course Topics	Resources		
All	Overall	FGIA Glossary FGIA Publications Catalog		
1	Fenestration Fundamentals Specifying Windows, Doors, and Skylights using NAFS Special Performance Challenges Skylights and Sloped Glazing	AAMA 1304 - 18 AAMA 1503 - 09 AAMA 1607 - 14 AAMA 1801 - 21 AAMA 2502 - 24 AAMA 450 - 20 AAMA 506 - 23	AAMA 510 - 14 AAMA 520 - 12 AAMA 910 - 24 AAMA GDSG-1 - 19 AAMA SKY-1 - 08 AAMA SKY-3 - 20 AAMA SSGDG-1 - 17	AAMA TECH 01-14 - 14 AAMA TIR A15-23 AAMA TIR-A1 - 04 AAMA WSG - 11 AAMA/WDMA/CSA 101/I.S.2/A440 - 22 PSSG-20
2	Glass Fundamentals Understanding Insulating Glass Systems	IGMA NGA TB-1800 - 1/8 IGMA TB 2701 - 95 IGMA TB-1200 - 83(16) IGMA TB-1300 - 23 IGMA TB-1601 - 24	IGMA TB-2600 - 15 IGMA TM-1300 - 13 IGMA TM-1500 - 14 IGMA TM-2000 - 76(82) IGMA TM-2100 - 78(81)	IGMA TM-3000 - 90(16) IGMA TM-3200 - 21 IGMA TM-4100 - 03 IGMA TM-4400 - 23 IGMA TM-5000 - 22
3	Profile Performance *A Deeper Dive Into Profile Performance Finishing Touches *A Deeper Dive Into Finishing Touches	AAMA 2603 - 22 AAMA 2604 - 22 AAMA 2605 - 22 AAMA 303 - 23 AAMA 305 - 24 AAMA 307 - 16 AAMA 510 - 14 AAMA 611 - 24 AAMA 612 - 20	AAMA 613 - 20 AAMA 614 - 20 AAMA 615 - 20 AAMA 623 - 21 AAMA 624 - 20 AAMA 625 - 20 AAMA 643 - 16 AAMA 664 - 21	AAMA 800 - 16 AAMA/WDMA/CSA 101/I.S.2/A440 - 22 *AAMA 1506 - 18 *AAMA 308 - 23 *AAMA 311 - 13 *AAMA 505 - 17 *AAMA QAG-1 - 98 *AAMA TIR A8 - 16
4	Hardware *A Deeper Dive Into Hardware Fenestration Components *A Deeper Dive Into Sealants and Adhesives	AAMA 501.5 - 23 AAMA 701 - 23 AAMA 702 - 23 AAMA 800 - 16	AAMA 901 - 24 AAMA 902 - 24 AAMA 904 - 21 AAMA 906 - 21 AAMA 907 - 23	AAMA 908 - 16 AAMA 910 - 24 *AAMA 909 - 13 *AAMA 920 - 22
5	U.S. Codes and Energy *A Deeper Dive Into US Codes and Energy Canadian Codes and Energy	AAMA 1304 - 18 AAMA 501.5 - 23 AAMA 920 - 22 AAMA 925 - 22 AAMA/WDMA/CSA 101/I.S.2/A440 - 22		
6	Installation *A Deeper Dive Into Installation Anchorage and Field Testing	AAMA 200 - 12 AAMA 2400 - 21 AAMA 2410 - 13 AAMA 2501 - 20 AAMA 400 - 13 AAMA 502 - 21 AAMA 503 - 24 AAMA 511 - 22	AAMA 711 - 22 AAMA 712 - 23 AAMA 714 - 22 AAMA 800 - 16 AAMA 812 - 19 AAMA TIR-A14 - 20 AAMA TIR-A9 - 14	AAMA/WDMA/CSA 101/I.S.2/A440 - 22 FMA/AAMA/WDMA 100 - 12 FMA/AAMA/WDMA 300 - 12 FMA/AAMA/WDMA 500 - 16 IPCB-08 *AAMA 713 - 24 *FMA/AAMA/WDMA 2710 - 20
7	Storefronts and Entrances *A Deeper Dive Into Storefronts And Entrances Energy and High-Performance Technology Fenestration Anchorage	AAMA CW-10 - 15 AAMA CWM-19 AAMA SFM-1 - 14 AAMA SFM-1 - 14 *AAMA 611 - 24 *AAMA 2605 - 22		

*FenestrationMaster Level Virtual Library Only

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Part III: Sample Exam Questions

FenestrationAssociate

All questions on the examinations are multiple choice. 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. Framing material
 - D. Type of thermal break

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

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. How close must the framing members comprising the rough opening be to plumb 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. Choose the best answer to each question.

1. 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
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 the 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 FGIA standard used to determine the water penetration resistance of newly installed curtain walls?
 - A. AAMA 503
 - B. AAMA 714
 - C. AAMA 800
 - D. AAMA/WDMA/CSA 101/I.S.2/A440

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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 24, Section 10.2
4: C	4: Module 5.1, Part 1 – Slide 16
5: A	5: Module 6.1, Part 4 – Slide 12

Answer Key: FenestrationMaster

FenestrationMaster Sample Exam Questions

Question/Answer

	References
1:A	1: Module 1.1, Part 4 – 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: Module 5.1, Part 2 – Slide 18b
5:B	5: Module 6.1, Part 6 – multiple locations
6:A	6: Module 6.2, Part 3 – Slide 16