



# National Fenestration Rating Council Incorporated

**FS-1001** E0A3

NFRC FenStar Certification Program for ENERGY STAR®

---

© 2017 NATIONAL FENESTRATION RATING COUNCIL, INC.

**PREPARED BY:**

National Fenestration Rating Council  
6305 Ivy Lane, Suite 140  
Greenbelt, MD 20770  
Voice: (301) 589-1776  
Fax: (301) 589-3884  
Email: [fcf@nffc.org](mailto:fcf@nffc.org)  
Website: [www.nffc.org](http://www.nffc.org)

---

Document Control:

Issue Date: 2019-09-23

Approved by Top Management on: 2019-09-23

Printed copies of this document are uncontrolled. ~~Revision Date: 06-21-2019~~

~~Approved by Top Management on: 07-30-2019~~

© 2017. National Fenestration Rating Council Incorporated (NFRC). All rights reserved. *NFRC publications and documents are protected by copyright.* Any use of NFRC publications and documents, including reproduction or dissemination, in whole or in part, requires authorization by NFRC pursuant to NFRC's terms of use located at <http://www.nfrc.org/terms-of-use.aspx>.

© 2017. National Fenestration Rating Council Incorporated (NFRC). All rights reserved. *NFRC's FenStar Certified Products Directory is protected by copyright.* Any use of the NFRC FenStar Program Certified Products Directory, including reproduction or dissemination, in whole or in part, requires authorization by NFRC, pursuant to NFRC's FenStar Certification Program terms of use located at <http://www.nfrc.org/FenStar-program-terms-of-use.aspx>.





## ***FOREWORD***

The FenStar® Certification Program is the formal name of the Environmental Protection Agency (EPA)-recognized certification program that performs third-party conformity assessment activities for window, door and skylight products. Products are submitted for ENERGY STAR® certification after ratings have been certified by the NFRC Product Certification Program (PCP). Window, door and skylight products that are evaluated to meet ENERGY STAR requirements are officially certified as ENERGY STAR by the FenStar Certification Program.

The FenStar Certification Program is operated by the National Fenestration Rating Council Incorporated (NFRC). NFRC developed and operates a uniform rating system for energy and energy-related performance of windows, doors, and skylights. The FenStar Certification Program is available only to active Licensees in the NFRC Product Certification Program (PCP).

Through the FenStar Certification Program, manufacturers shall demonstrate their products meet all applicable ENERGY STAR performance parameters prior to being labeled as ENERGY STAR certified. Further, the partner shall demonstrate, through verification testing, the product continues to meet the ENERGY STAR requirements to maintain its ENERGY STAR certification through The FenStar Certification Program.

If there are changes that affect the performance of the product with respect to the relevant ENERGY STAR program requirements, the partner shall report these changes to The FenStar Operations Staff.

Manufacturers authorize the FenStar Operations Staff to share the results of any relevant testing or product review with the EPA.

NFRC, specifically the FenStar Certification Program, is a certification body operating in accordance with the ISO/IEC 17065 standard.

The following referenced documents are indispensable for the application of The FenStar Certification Program. The latest edition of the referenced document (including any amendments) applies. These are not auditable standards and are used solely for guidance.

- [\*NFRC 700: Product Certification Program\*](#). National Fenestration Rating Council: Greenbelt, MD; 2017. [www.nfrc.org](http://www.nfrc.org)

- [ANSI/NFRC 100: Procedure for Determining Fenestration Product U-factors.](#) National Fenestration Rating Council: Greenbelt, MD; 2017. [www.nfrc.org](http://www.nfrc.org)
- [NFRC 102: Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.](#) National Fenestration Rating Council: Greenbelt, MD; 2017. [www.nfrc.org](http://www.nfrc.org)
- [ANSI/NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.](#) National Fenestration Rating Council: Greenbelt, MD; 2017. [www.nfrc.org](http://www.nfrc.org)
- [ANSI/NFRC 400: Procedure for Determining Fenestration Product Air Leakage.](#) National Fenestration Rating Council: Greenbelt, MD; 2017. [www.nfrc.org](http://www.nfrc.org)
- ASTM E283 – 04(2012): Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen. ASTM International, West Conshohocken, PA, 2006, DOI: 10.1520/E0283-04R12. [www.astm.org](http://www.astm.org)
- ENERGY STAR Directives:  
[https://www.energystar.gov/index.cfm?c=third\\_party\\_certification.tpc\\_directives](https://www.energystar.gov/index.cfm?c=third_party_certification.tpc_directives)

To participate in the Certification Programs, a Manufacturer/Responsible Party shall rate a product whose energy and energy-related performance characteristics are to be certified in accordance with mandatory NFRC rating procedures. At present, a Manufacturer/Responsible Party may elect to rate products for U-factor, Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT), Air Leakage (AL), Condensation Resistance, or any other procedure adopted by NFRC, and to include those ratings on the NFRC temporary label affixed to its products or on the NFRC Label Certificate. U-factor, SHGC, VT, AL, and condensation resistance rating reports shall be obtained from a laboratory that has been accredited by NFRC in accordance with the requirements of the NFRC 701.

The FenStar Certification Program evaluates products against the ENERGY STAR certification program requirements.

The FenStar Certification Program maintains a FenStar Program Certified Products Directory (FCPD), listing product lines and individual products selected by the Manufacturer/Responsible Party for which ENERGY STAR certification authorization has been granted.

NFRC owns all rights in and to all documents and procedures, which are a component of the FenStar Certification Program, as well as each of its registration marks, trade names, and other intellectual property.

For additional information on the roles of those entities associated with the NFRC PCP (IAs and laboratories, and operation of the IA Program and Accreditation Program), see the NFRC 700: Product Certification Program, NFRC 701: Laboratory Accreditation Program (LAP), and NFRC 702: Certification Agency Program (CAP) documents.



**National Fenestration Rating Council**

6305 Ivy Lane, Suite 140

Greenbelt, MD 20770

Voice: (301) 589-1776

Fax: (301) 589-3884

Email: [fcf@nsrc.org](mailto:fcf@nsrc.org)

Website: [www.nsrc.org](http://www.nsrc.org)



## ***DISCLAIMER***

The use of the FenStar Certification Program as a Certification Body does not constitute a warranty by the NFRC or the FenStar Certification Program regarding the energy performance properties of windows, doors, and skylights. The rating indices are not an endorsement of, or recommendation for, any windows, doors, or skylights. The FenStar Certification Program is not a merchant in the business of selling windows, doors, or skylights, and therefore, cannot warrant products as to their merchantability or fitness for a particular use.

The FenStar Certification Program, therefore, disclaims any and all liability, including but not limited to, damages for personal or other injury, lost profits, lost savings or other consequential or incidental damages that may arise from or in connection with:

- A. services provided by, decisions made by, or reports issued or granted by any ENERGY STAR Partner;
- B. reliance on The FenStar Certification Program product description, specification, rating or test, whether appearing in a report, in a product Certificate of Authorization (CA) or a printed or electronic directory, or on a label; or
- C. the sale or use of The FenStar Certification Program certified windows, doors, or skylights.



## Table of Contents

<b>Foreword</b>		<b>iviii</b>
<b>Disclaimer</b>		<b>viiiv</b>
<b>Table of Contents</b>		<b>viiivii</b>
<b>1. Introduction</b>		<b>1</b>
1.1 SCOPE		1
1.1.1 Role of NFRC as an ENERGY STAR Certification Body		1
1.1.2 Role of the FenStar Program Licensee		2
1.1.3 Fees		2
1.1.4 Property Rights		<b>32</b>
1.2 PRODUCT PROCESSING PROCEDURE		3
1.2.1 Products		3
Table 1. <i>ENERGY STAR Program Requirements Product Specification for Windows, Doors, and Skylights - Eligibility Criteria</i>		3
1.3 WITNESSED MANUFACTURERS' TESTING LABORATORY (WMTL) OR SUPERVISED MANUFACTURERS' TESTING LABORATORY (SMTL) PROGRAM		4
1.4 VERIFICATION TESTING (SURVEILLANCE)		4
1.5 PROGRAM COMPLIANCE		4
1.6 SUSPENSION OR WITHDRAWAL		4
1.7 TERMINATION		5
1.8 REINSTATEMENT		5
<b>2. Licensee Appeals</b>		<b>5</b>
2.1 GENERAL		5
2.2 SUBMISSION		5
2.3 NOTIFICATION		6
2.4 APPEAL REVIEW		6
<b>3. Complaints</b>		<b>6</b>
3.1 PURPOSE		6
3.2 PROCEDURES		6
3.3 SUBMISSION		6



3.4 NOTIFICATION..... 7  
3.5 REQUIRED ACTION..... 7  
4. References..... 7

---

# 1. INTRODUCTION

---

The FenStar Certification Program (hereinafter referred to as “the FenStar Program”) was created to perform certification activities under NFRC as a Certification Body (CB) for the Environmental Protection Agency’s (EPA) ENERGY STAR windows, doors, and skylights program. The FenStar Program authorizes products for ENERGY STAR certification but does not conduct testing of products. The FenStar Program policies and procedures are based on policies and procedures set forth by the EPA for ENERGY STAR Certification Bodies under the Windows, Doors, and Skylights Program.

## 1.1 Scope

The FenStar Program authorizes windows, doors, and skylights for the EPA’s ENERGY STAR Certified Products list.

The FenStar Program is designed to support the ENERGY STAR program by certifying and verifying windows, doors, and skylights per the policies and procedures outlined in the latest versions of the:

- *ENERGY STAR Program Requirements for Windows, Doors, and Skylights,*
- *Standard Operating Procedure for Certification of Products to ENERGY STAR Specifications,* and
- *Conditions and Criteria for Recognition of Certification Bodies for the ENERGY STAR Program.*

**NOTE:** The FenStar Program is a separate and distinct program from the National Fenestration Rating Council’s Product Certification Program (PCP). The FenStar Program is not intended to be used as a primary law or regulation, but rather as an authoritative resource that complements adopted laws or regulations. If this program is referenced into law or regulation, the provisions of law or regulation may dictate specific requirements that are in addition to or conflict with this program. It is therefore the responsibility of the program Licensee to comply with applicable laws and regulations.

### 1.1.1 Role of NFRC as an ENERGY STAR Certification Body

NFRC owns and operates the FenStar Program. The FenStar Program is responsible for:

- A. Periodically reviewing the EPA’s ENERGY STAR Window, Door, and Skylight scheme requirements;
- B. Managing the FenStar Program in accordance with the ENERGY STAR Certification scheme;
- C. Managing the FenStar Program Verification Testing Procedure (FVTP) of ENERGY STAR Certified products in accordance with FS-1100;

- D. Maintaining a system under which ENERGY STAR Certificates of Authorization are provided to ENERGY STAR Partners;
- E. Maintaining an online, real-time listing of products and their energy performance ratings authorized for certification;
- F. Periodically conducting educational workshops for entities participating in the FenStar Program to ensure continuing competence and uniform application of certification.

### 1.1.2 Role of the FenStar Program Licensee

- A. The FenStar Program Licensee shall be responsible for meeting the requirements of the program including, but not limited to, the following:
  - i. Entering into an ENERGY STAR Partnership Agreement with the EPA;
  - ii. Maintaining status as an active participant in the NFRC Product Certification Program;
  - iii. Labeling products to indicate NFRC Certification and ENERGY STAR Certification.
  - iv. Sign and provide the FenStar Certification Program license agreement to the FenStar Operations Staff.
  - v. Provide to FenStar staff all required materials and documents for evaluation of products.
  - vi. Maintain records of complaints of compliance with certification requirements, take appropriate actions regarding said complaints, and maintain records of all actions taken for 5 years or as required by the licensee's record retention policies. ~~with respect to those complaints.~~
  - vii. Cooperate with FenStar staff during investigations of any complaints of product performance and/or compliance with the program.
  - viii. Providing a representative sample of a certified product line as required for verification testing.
  - vii-ix. Providing copies of certification documents only in their entirety.
- B. Following additional requirements established as necessary to assure continued program compliance.

### 1.1.3 Fees

The NFRC 704 Fee Schedule includes NFRC fees for participating in the FenStar Program. The schedule is a stand-alone document that is maintained on the NFRC website.

### 1.1.4 Property Rights

NFRC owns all rights to the FenStar Program, the FenStar Program trademarks, copyrights, and the program documents, policies, and procedures.

## 1.2 Product Processing Procedure

### 1.2.1 Products

The FenStar Program shall follow the guidelines for product processing set forth by the EPA in the:

- *Conditions and Criteria for Recognition of Certification Bodies for the ENERGY STAR® Program;*
- *Standard Operating Procedure for Certification of Products to ENERGY STAR® Specifications; and*
- *ENERGY STAR® Product Specification Residential Windows, Doors, and Skylights Eligibility Criteria.*

The FenStar Program shall follow the current version of these documents at the time of approval.

Below are the product processing procedures for the FenStar Program based on these documents:

- A. Confirm the Licensee has signed an ENERGY STAR Partnership agreement;
- B. Confirm that the products are rated in accordance with proper NFRC technical documents;
- C. Confirm Licensees are active in the NFRC Product Certification Program;
- D. Confirm Licensees are in good financial standing with NFRC;
- E. Confirm Air Leakage has been certified per ENERGY STAR guidelines;
- F. Confirm the product is authorized for NFRC certification;
- G. Confirm U-factor, SHGC, and Air Leakage ratings meet current ENERGY STAR requirements as shown in Table 1; and
- H. Confirm product installation instructions meet ENERGY STAR requirements.

**Table 1. ENERGY STAR Program Requirements Product Specification for Windows, Doors, and Skylights - Eligibility Criteria**

ENERGY STAR Requirement	Test Method Reference
-------------------------	-----------------------

U-factor	ANSI/NFRC 100
SHGC	ANSI/NFRC 200
Air Leakage	ASTM E283 in accordance with ANSI/NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440-11

### 1.3 Witnessed Manufacturers' Testing Laboratory (WMTL) or Supervised Manufacturers' Testing Laboratory (SMTL) Program

ENERGY STAR certification requires NFRC certification. The NFRC Product Certification Program (PCP) requires the use of NFRC 701-accredited laboratories. Therefore, the FenStar Program shall not allow use of a Witnessed Manufacturers' Testing Laboratory (WMTL) or Supervised Manufacturers' Testing Laboratory (SMTL) for certification of U-factor or SHGC testing.

### 1.4 Verification Testing (Surveillance)

Verification Testing shall be carried out as surveillance in accordance with *FS-1100 FenStar Certification Program Verification Testing Procedure*.

### 1.5 Program Compliance

If a Licensee is not in compliance with all the criteria and conditions of the FenStar Program and the ENERGY STAR program, the FenStar Program has the authority to suspend, withdraw, or modify (including but not limited to imposition of further conditions) for cause any product certification granted under this program. The FenStar Program has the right to inform the EPA of any suspension, withdrawal, modification, termination, or reinstatement. The compliance requirements under the FenStar Program do not replace the requirements of *NFRC 707: Compliance and Monitoring Program Manual*.

### 1.6 Suspension or Withdrawal

The detailed procedure for suspension or withdrawal can be found in the *FS-1106 Termination, Suspension, or Withdrawal Procedure*. Upon suspension, or withdrawal of certification, the manufacturer shall discontinue the use of advertising material referencing the withdrawn or suspended product certification and shall take any additional actions as required by the certification scheme and scheme owner.

The causes for suspension or withdrawal of a product or a Licensee from the FenStar Program include the following:

- A. Failure of the product to conform to the certification specifications as defined by the FenStar Program and the ENERGY STAR Certification Program.
- B. Failure to comply with any condition or rule of the FenStar Program.

- C. Any intentional misstatement in the application or any knowingly inaccurate data submitted in support thereof.
- D. Failure to comply with any provision in the FenStar Program license agreement.
- E. Failure to pay any fees associated with the NFRC PCP, the FenStar Program, or verification testing.
- F. Failure to take corrective actions to address nonconformities as identified by the EPA, NFRC PCP, or the FenStar Program.
- G. Any other grounds considered as adequate cause in the judgment of the FenStar Program Operations Staff whether of the same or a different type than listed above.

### **1.7 Termination**

In accordance with the License Agreement and the *FS-1106 Suspension, Termination, and Withdrawal Procedure*, the FenStar Program Licensee may terminate participation in the FenStar Program upon prior written notification to the FenStar Program. Upon termination of certification, the manufacturer shall discontinue the use of advertising material referencing the terminated product certification and shall take any additional actions as required by the certification scheme and scheme owner.

### **1.8 Reinstatement**

Reinstatement of products and/or the FenStar Program Licensees shall be at the sole discretion of the FenStar Program in accordance with *FS-1106 Suspension, Termination, and Withdrawal Procedure*.

---

## **2. LICENSEE APPEALS**

---

### **2.1 General**

A FenStar Program Licensee may appeal the denial, suspension or withdrawal of product certification by the FenStar Program. Appeals must be submitted within 20 business days of the date of receipt by the Licensee of that denial, suspension or withdrawal. Appeals of verification testing failures shall be governed by *FS-1100: FenStar Certification Program Verification Testing Procedure*.

### **2.2 Submission**

Appeals shall be submitted in writing, addressed to The FenStar Certification Program headquarters (NFRC's Office, 6305 Ivy Lane, Greenbelt, MD 20770), and shall include the following information:

- A. Appellant name, address, telephone, facsimile (if used), and email contact numbers,

- B. Name and address of legal counsel if the appellant desires to have representation,
- C. Identification of the certification decision being appealed,
- D. Reason(s) for the appeal, and
- E. Relevant evidence and supporting data or information.

The FenStar Program reserves the right to request further information or a written clarification from the Appellant.

### **2.3 Notification**

Upon receipt of an appeal, the FenStar Operations Staff shall assign a file number. All future correspondence relating to that appeal to and from the FenStar Program shall reference the file number. The Appellant shall be notified if a hearing on the appeal is required. The FenStar Program shall acknowledge receipt of the appeal to the Appellant.

### **2.4 Appeal Review**

The FenStar Program shall, upon receipt of a completed appeal submission, evaluate the appeal and render a decision on the appeal within 20 business days or within 20 business days of a hearing if one is convened. The decision to hold a hearing shall be at the discretion of the FenStar Program Operations Staff. The decision resolving the appeal shall be made by, or reviewed and approved by, person(s) not involved in the certification activities related to the appeal. FenStar Operations Staff reserves the right to extend the time of review if there is sufficient cause. The FenStar Program shall notify Appellant of the appeal decision by email, return receipt requested, or other method, which provides evidence of delivery.

---

## **3. COMPLAINTS**

---

### **3.1 Purpose**

This section addresses procedures for handling complaints regarding the FenStar Program.

### **3.2 Procedure**

Per the *FS-1105 Feedback, Complaints and Appeals Procedure*, any party shall be afforded the opportunity to discuss, clarify, and resolve disagreements with the FenStar Program prior to submitting a formal written complaint.

Complaints regarding matters outside the scope of the FenStar Program shall be forwarded to the EPA for resolution.

### **3.3 Submission**

Any person may submit a written complaint to the FenStar Program. The FenStar Program shall share the complaint with EPA.

- A. The submission shall include:
  - i. Submitter name, and address, telephone, and e-mail,
  - ii. A description of the complaint,
  - iii. Relevant information to support the complaint, and
  - iv. If a complaint is regarding a product's rating, FenStar Operations Staff determines whether product retesting is appropriate. The complainant shall pay a filing fee that includes the estimated cost of obtaining and testing product samples and investigating the complaint. In the event the complaint is upheld, the product manufacturer shall cover all costs of processing the complaint, and the filing fee shall be returned to the complainant.
- B. The FenStar Program reserves the right to request further information or written clarification.
- C. Complaints involving FenStar Program management, staff, or parties working on behalf of the FenStar Program, shall be handled through the FenStar Program's corrective action procedure.
- D. The decision resolving the complaint shall be made by, or reviewed and approved by, person(s) not involved in the certification activities related to the complaint.
- E. Any complaints deemed to be outside the scope of the FenStar Program's purview shall be submitted to the EPA for resolution.

### 3.4 Notification

Upon receipt of a formal written complaint, the FenStar Program shall forward a notice to EPA indicating receipt of the submission, an action plan for resolving the complaint, and shall assign the complaint a file number. The FenStar Program Licensee(s) referenced in the complaint shall be provided with a copy of the notice. If an ENERGY STAR product customer files a complaint, the complainant shall be notified of the submission of that complaint to the EPA concurrently.

### 3.5 Required Action

The FenStar Program shall inform EPA, the complainant, and the Licensee of the results of the investigation, including any tests. In the event of a failed test, the Licensee shall recertify the product line according to *NFRC 700: Product Certification Program* and *FS-1001: FenStar Certification Program for ENERGY STAR*.

---

## 4. REFERENCES

---

This document was developed using the certification scheme requirements at the time of publication. From time to time the EPA may modify their certification scheme at which time the FenStar Program shall update this document to maintain conformance with ENERGY STAR®.



1. [ENERGY STAR Program Requirements for Windows, Doors, and Skylights Version 6.0, 2014](#)
2. [Standard Operating Procedure for Certification of Products to ENERGY STAR® Specifications Version 2.2, 2014](#)
3. [Conditions and Criteria for Recognition of Certification Bodies for the ENERGY STAR Program, 2015](#)
4. [The ENERGY STAR Brand Book](#)
5. [ENERGY STAR Partnership Agreement](#)