

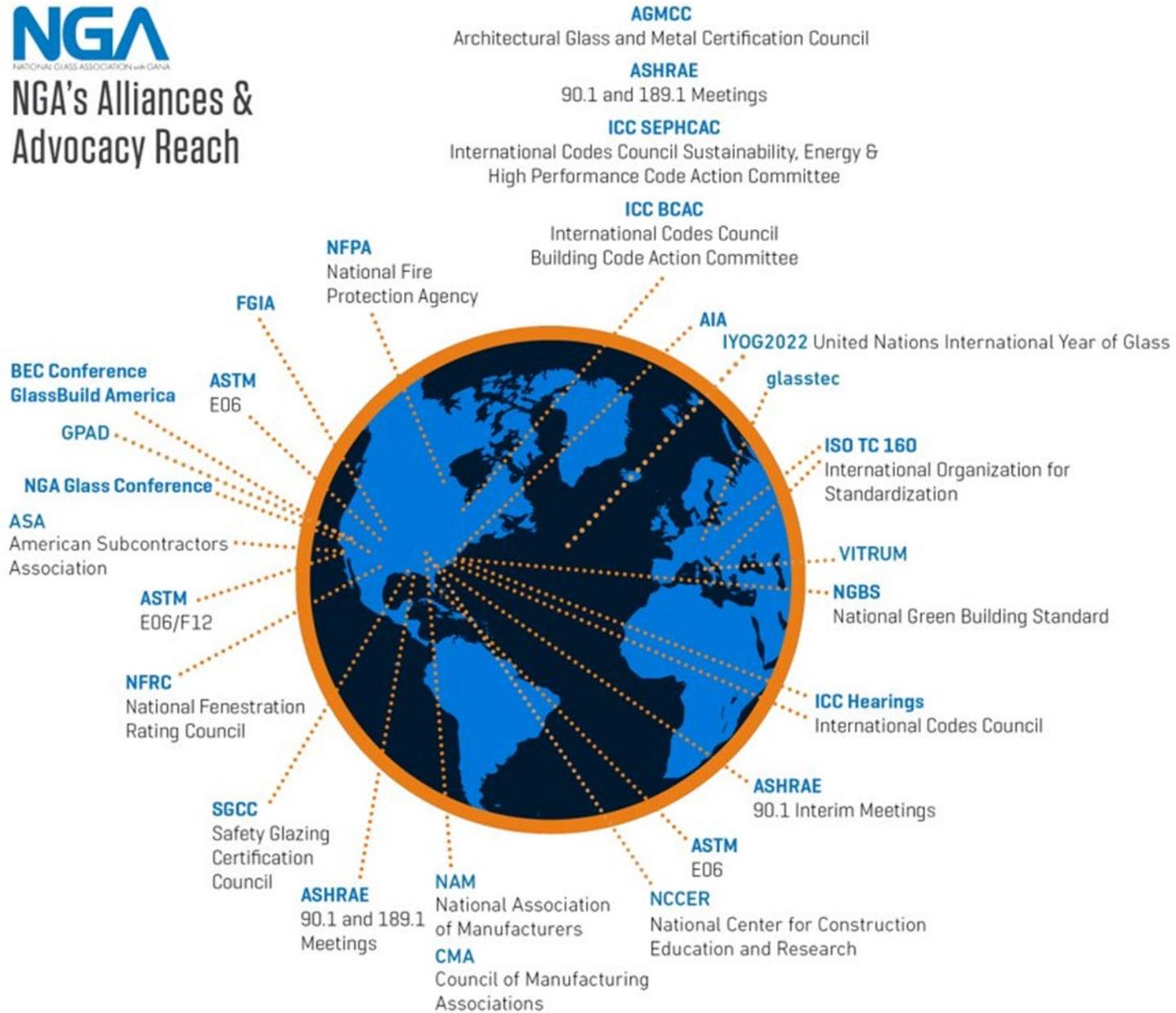
NGA GLASS CONFERENCE™ ISLE OF PALMS | CHARLESTON

FEBRUARY 5-8, 2024

NGA
NATIONAL GLASS ASSOCIATION with GANA



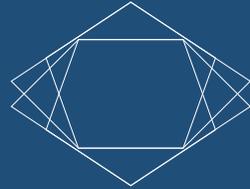
NGA's Alliances & Advocacy Reach



NGA's Advocacy & Technical Services Team



*Top row: Urmilla Sowell, Karen Wegert, Georgia Scalfano, Amber Johnson
Bottom row: Tom Culp, Thom Zaremba, Nick Resetar, Nicole Harris*



Certification Program Update

Administered By:
AMS, Inc.

205 West Main St., P.O. Box 730
Sackets Harbor, New York 13685

E-mail: staff@amscert.com

Phone: (315) 646-2234

Website: www.amscert.com

February 2024

SGC
safety glazing
certification council

INSULATING GLASS
IGCC
CERTIFICATION COUNCIL

IGMA INSULATING
GLASS
MANUFACTURERS
ALLIANCE

igmac
CERTIFICATION

ANSI Z97.1
Published
September 2015
Reaffirmed
September 2020



CPS 16 CFR 1201

CAN/CGSB – 12.1-
2022
Published
February 2022

ANSI Z97.1-2015
For safety glazing materials used in buildings –
safety performance specifications and methods of test

American National Standard

ANSI Z97.1-2015 (R2020)
For safety glazing materials used in buildings –
safety performance specifications and methods of test

American National Standard

Thank You!
ASC 297
Complimentary member copy

Glazing Industry Secretariat Committee
1945 Old Gallows Road, Suite 700
Vienna, VA 22180

The image shows the cover of the ANSI Z97.1-2015 (R2020) standard, which features a blue and white grid pattern. Below it is a complimentary member copy with a teal background and a starburst graphic.

**PART 1201—SAFETY STANDARD
FOR ARCHITECTURAL GLAZING
MATERIALS**

Subpart A—The Standard

- Sec.
- 1201.1 Scope, application and findings.
 - 1201.2 Definitions.
 - 1201.3 General requirements.
 - 1201.4 Test procedures.
 - 1201.5 Certification and labeling requirements.
 - 1201.6 Prohibited stockpiling.
 - 1201.7 Effective date.

Government of Canada
Canadian General Standards Board
Office des normes générales du Canada

CAN/CGSB-12.1-2022
Supersedes CAN/CGSB-12.1-2017

Safety glazing
Revised

Canadian General Standards Board CGSB
soc ccn

Canada

Essentials and excellence
Excellence et excellence
CGSB
d/tec

The image shows the cover of the CAN/CGSB-12.1-2022 standard. It features a white background with a blue grid pattern and the word 'Revised' in large yellow letters. Logos for the Government of Canada, Canadian General Standards Board, and CGSB are visible.

Safety Glazing Materials Used in Buildings

CAN CGSB – Committee on Glass

- Marg Webb (FGIA retired) remains Chair
- Committee working on:
 - CAN/CGSB 12.20 - Structural Design of Glass in Buildings (in process)
 - CAN/CGSB 12.1 - Safety Glazing (in process) – will maintain harmonization with Z97.1
 - CAN/CGSB 12.8 - Insulating (work will start in Fall ‘24)
- All standards must be published Spring 2026.

As a reminder 2022 revision to 12.1 requires a labeling change,
Mandatory Jan. 1, 2024.



<p>CAN/CGSB-12.1-2022</p> <p>Supersedes CAN/CGSB-12.1-2017</p>
<p><u>In inches</u></p> <p>ABC Glass – Plant A (optional)</p> <p>16 CFR 1201 II</p> <p>ANSI Z97.1-2015</p> <p>CAN/CGSB 12.1-2017<u>2022</u></p> <p>1/4 U A SGCC 9999</p>

CPSC 16 CFR 1201

PART 1201 - SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS

Authority: Secs. 2, 3, 7, 9, 14, 19, Pub. L. 92-573, 86 Stat. 1212-17; (15 U.S.C. 2051, 2052, 2056, 2058, 2063, 2068).

Source: 42 FR 1441, Jan. 6, 1977, unless otherwise noted.

Subpart A - The Standard

§ 1201.1 Scope, application and findings.

- (a) **Scope.** This part 1201, a consumer product safety standard, prescribes the safety requirements for glazing materials used or intended for use in any of the following architectural products:
- (1) Storm doors or combination doors.
 - (2) Doors.
 - (3) Bathtub doors and enclosures.
 - (4) Shower doors and enclosures.
 - (5) [Reserved]
 - (6) Sliding glass doors (patio-type).

16 CFR 1201.1(a)(6) (enhanced display)

page 1 of 13

§ 1201.4 Test procedures.

Except as provided in §§1201.1(c) and (d), architectural glazing products shall be tested in accordance with all of the applicable test provisions of **ANSI Z97.1-2015** “*American National Standard for Safety Glazing Materials Used in Building—Safety Performance Specifications and Methods of Test*,” approved March 2015. The Director of the Federal Register approves the incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from ANSI Customer Service Department, 25 W. 43rd Street, 4th Floor, New York, NY 10036. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

[81 FR 15431, Mar. 23, 2016]

ASC Z97 Committee Leadership

SECRETARIAT (GISC)

(Jeff Haberer, Shane Merryman, Ilona Schmidt)

- Apply for accreditation
- Oversee consensus body for compliance
- Maintain roster
- Provide secretary
- Submitting standards to ANSI
- Secretariat submits budget to SC

OFFICERS

Chair – Kent

Vice Chair – **Open**

Secretary – Julia Schimmelpenningh

- Appointed by secretariat
- Subject to approval by majority vote of CB

STEERING COMMITTEE

(Rick Wright, Urmilla Sowell, John Kent, Julia Schimmelpenningh)

- Propose standards
- TI's
- Overall supervision
- Establish general policies
- Adopting & implementing procedure
- Membership review
- Financial responsibility
- Propose Task Groups Schedule

CONSENSUS BODY

(The Committee – 28 Members)

- ❖ Voting on the standard
- ❖ Maintaining the standard
- ❖ Adopting policies
- ❖ Other matters

ASC Z97 Committee Update

ANSI Z97.1-2015 (R2020)

- **June 21st, 2023 - Full Committee**

- A. Request volunteers for vice chair
- B. Plan forward –
 1. Task Group activities have begun
 2. Likely will not be ready for revisions before 2025 (likely reaffirmation)
 3. Target 2030 significant revisions
- C. Task Groups formed & Scopes Drafted
 1. Test Method and/or Specification – (Ilona Schmidt – Corning)
 1. Proposing new wording to Section 1.3 Limitations to define wire glass (not fire rated)
 2. New Alternate Impactor – (Michelle Phan – Cardinal)
 - a. Looking into bullet/torpedo impactor method
 3. ASTM reference vs language in std. (Urmilla Sowell – NGA)
 4. Misc. Issues (Scott Norville – GI)



- **Committee is out of balance (due to rule change, other) 28 Members**

Actively soliciting non “Fabricator/Distributor” members

Next Committee Call TBD (March?)

ASC Z97.1 ANSI ACCREDITED STANDARDS COMMITTEE
Safety Requirements for Architectural Glazing Materials

Chairman: K. Olah, 2300 Harmon Road, Auburn Hills, MI 48326, Phone: 248-340-2141; E-mail: KOLAH@Guardian.com
Secretary: J.C. Schimmelpenninck, 730 Worcester Street, Springfield, MA 01151, Phone: 413-730-3413; E-mail: JCSCHI@Solutia.com

**Membership Request
ASC Z97 Committee**

1. Type of membership:
 Organizational
 Individual

2. Please provide the following basic information:
Name/Title: _____
Organization: _____
Address: _____
Telephone: _____
FAX: _____
E-mail: _____
Website: _____

Contact Us – www.sgcc.org or email SGCC@amscert.com

Certification Testing Standards - ANSI Z97.1-2015(R2020), CPSC 16 CFR 1201, *CAN/CGSB 12.1-2022

- **Next Meeting** – SGCC® 2024 Fall Certification Committee Meeting August 19-21 in **Clayton, New York**
- **Administrative Activity** –
 - **Audits** – F24 (First Half of 2024) Issued January '24, audits continue to be completed both 30% Virtually (Remote) and In person 70% (Physical)
 - **Testing Results & Failure Rates (Industrywide)** – To be made viewable, in real time, via CIP (Certification Information Portal)
 - **Coated Glass** – Continue to collect and report testing results
 - **New Laminated Glass Certification Changes** – SGCC Board of Directors & Cert. Comm. **Approved** moving forward. SGCC Staff currently contacting participants individually to discuss *Current vs. New Lami Certification Requirements. Workshop Thursday!*
 - **Certified Products Directory** – Issued in January '24, electronic only
 - **Semi-Annual Billing** – New Lami fee structure to be issued in April (L24 Invoicing)
- **Subcommittee Activity** –
 - Several New Members added to Subcommittees
 - **Laboratory Subcommittee**- Set to discuss specimen handling, glass tracking, effect of New Lami. Cert. req. on testing facilities.

IGCC®/IGMA® Certification Activities

Contact Us – www.igcc.org or email IGCC@amscert.com

Certification Testing Standards – ASTM E2190 – 2019

- **Next Meeting** – IGCC® 2024 Spring Certification Committee Meeting May 7-8, 2024 in **Charleston, SC**
- **IGCC/IGMA and IGMAC** – Continuing to work through the **Normalization** process.
- **Administrative Activity** –
 - **RAC** – Continue to offer Provisional Certification with use of RAC, draft ASTM Standard Test Method out for ballot.
 - **2024 Test Fee Schedule** Distributed in November '23
 - **Annual Billing** Issued in December '23
 - **Audits** – F24 (First Half 2024) Issued in January '24
- **Subcommittee Activity** –
 - **Advanced Testing (RAC) Subcommittee** – Continue to Collect Correlation Data
 - **Marketing Subcommittee** – Reactivated
 - **Guidelines & Equivalency Subcommittee** – Multiple Airspace Units (Triples IGUs)
 - **Laboratory Subcommittee** – Testing equipment & backlog. Actively looking for testing laboratories that perform ASTM E2190 testing.



Rapid Assessment Chamber Update: Certification Committee

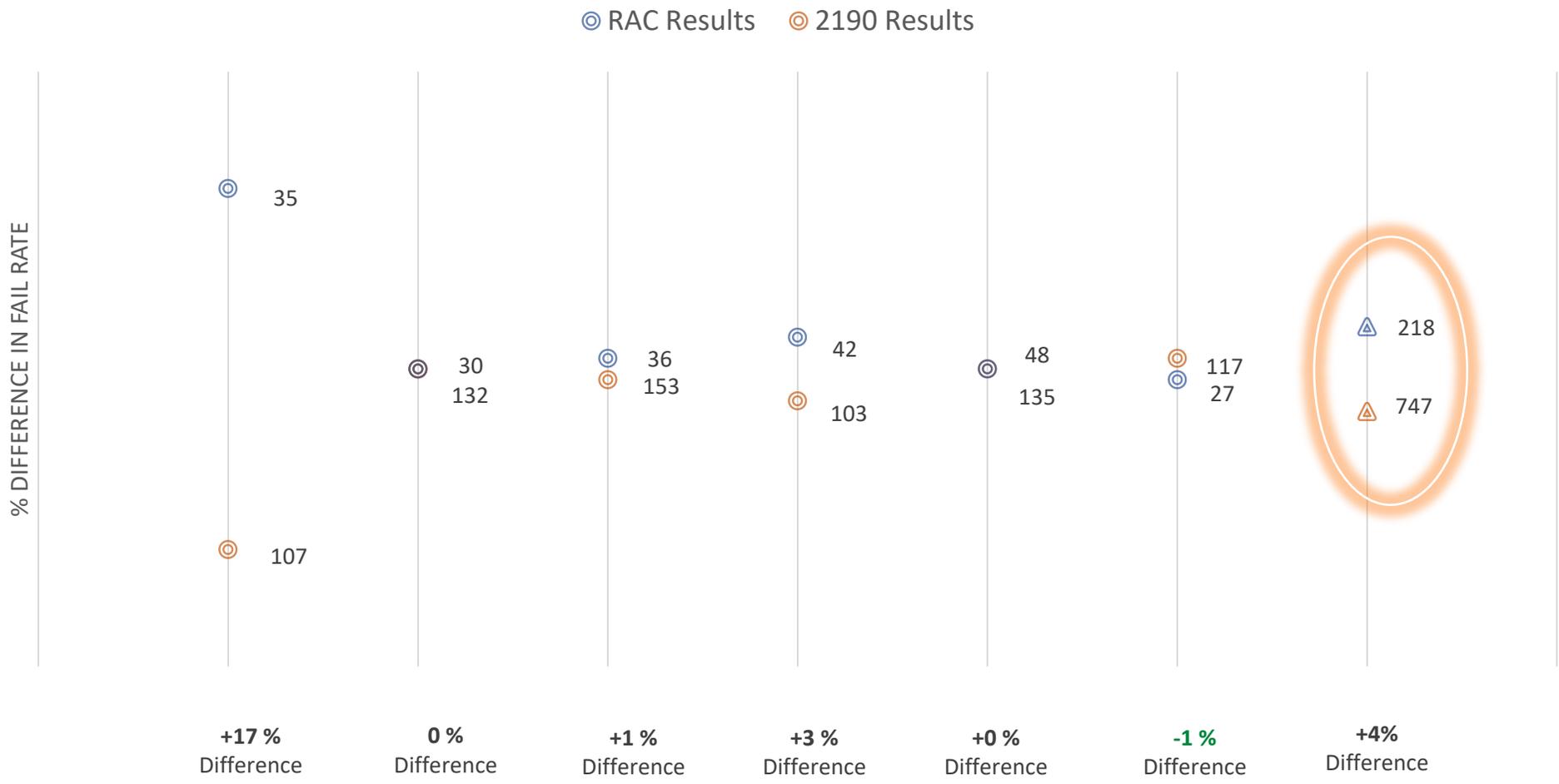
February 2024

THE GOAL OF RAC

Test IG units to determine if defects are present
(workmanship, materials, design, other)
in 14 Days or less.

Validation Testing - Complete

Individual Unit Failure Rate: RAC vs 2190



NOTES:

Comparing individual RAC Pass/Fail Rate to individual Pass/Fail Rate of 2190

RAC is showing to be a little harder on IG Units !!!!

We want Blue (RAC) above Orange (2190)

These types are 92% of certified products.

Percentage of Total IGCC/IGMA certified products

TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	Overall
6%	11%	50%	6%	17%	2%	92%

218 Units Validation Tested

ASTM Draft Standard

- Document currently being used by the labs to test with the RAC
- Initially Proposed to ASTM 4/18/2023
- Work Item #86079 Assigned
- First Round of Balloting Closed 10/6/2023
- Submitted 12/15/2023 for Second Round of Balloting at the ASTM E06.22 Subcommittee Level

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INTERNATIONAL Designation: TBD

Date: Draft 2, 2023-05-18
 To: Subcommittee E06.22
 Tech Contact: Matt Waldren – (waldrenmo@pella.com)
 Work Item #: WK 86079
 Ballot Action: New Standard, Test Method for Insulating Glass Unit Performance Using the Rapid Assessment Chamber (RAC)
Rationale: This standard is a new proposed test method developed in consideration of ASTM E2188, Standard Test Method for Insulating Glass Unit Performance. The new standard is intended to provide for a quicker evaluation of insulating glass unit performance.

Test Method for Insulating Glass Unit Performance Using the Rapid Assessment Chamber (RAC)¹

This is a working document and standard has not been published.

1. Scope

- 1.1 This test method covers procedures for testing the performance of preassembled permanently sealed insulating glass units.
- 1.2 This test method is applicable only to insulating glass units that are constructed with glass.
- 1.3 This test method is applicable to both double-glazed and triple-glazed (inner lite of glass or plastic) insulating glass units.
- 1.4 The unit construction used in this test method contains dimensions that are an essential component of the test. Different types of glass, different glass thicknesses, and different cavity sizes may affect the test results.
- 1.5 This test method is not applicable to insulating glass units containing a spandrel glass coating due to testing limitations.
- 1.6 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.
- 1.7 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.

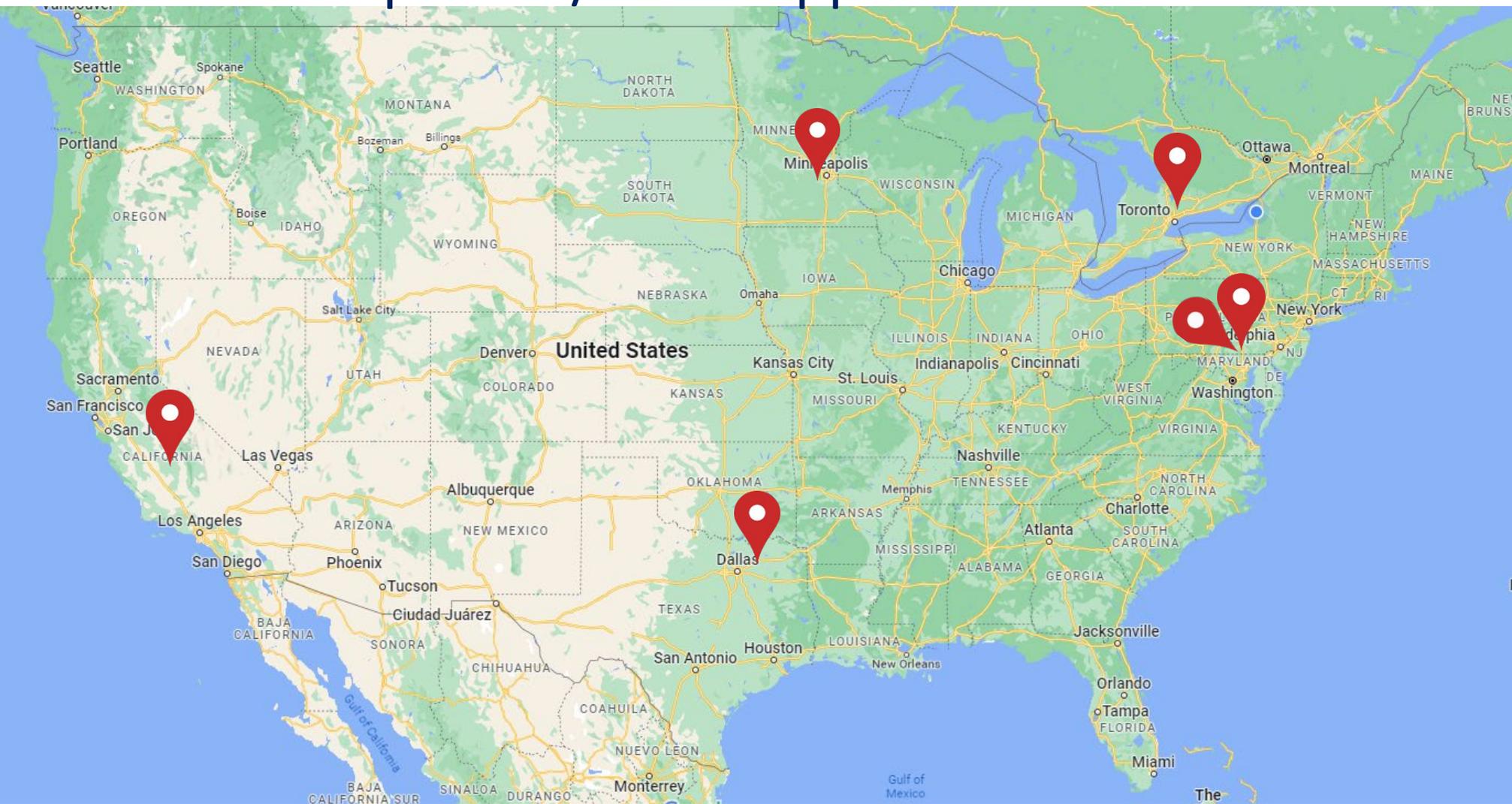
2. Referenced Documents

- 2.1 ASTM Standards:²
 - C162 Terminology of Glass and Glass Products
 - C717 Terminology of Building Seals and Sealants
 - C1036 Specification for Flat Glass
 - E631 Terminology of Building Constructions
 - E546 Test Method for Frost/Dew Point of Sealed Insulating Glass Units
 - E2188 Standard Test Method for Insulating Glass Unit Performance
 - E2189 Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units
 - E2190 Specification for Insulating Glass Unit Performance and Evaluation
 - E2649 Standard Test Method for Determining Argon Concentration in Sealed Insulating Glass Units Using Spark Emission Spectroscopy

¹ This new test method is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.22 on Durability Performance of Building Constructions.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

Installation Map: IGCC/IGMA Approved Laboratories



Molimo York, PA

Intertek York, PA

Intertek Plano, TX

Intertek Fridley, MN

Intertek Fresno, CA

CAN-BEST
Brampton, ON

- 11 Chambers Delivered In 2023
- Anticipate 10 additional chambers delivered and operational by end of 2024.

If you have interest in purchasing / receiving an RAC contact: **Mitch Majewski** (mmajewski@amscert.com)

Correlation Testing Results

IGCC's Provisional Certification

RAC Testing By Set		2190 Testing By Set	
# Fabricated	22 Sets	# Fabricated	22 Sets
Completed Both RAC & 2190 Testing: 14 Sets			
Passed Both RAC & 2190	9	12/14 Sets	
Failed Both RAC and 2190	3		
Passed RAC but failed 2190	2	2/14 Sets	
Failed RAC but Passed 2190	0		
		85% Correlation	

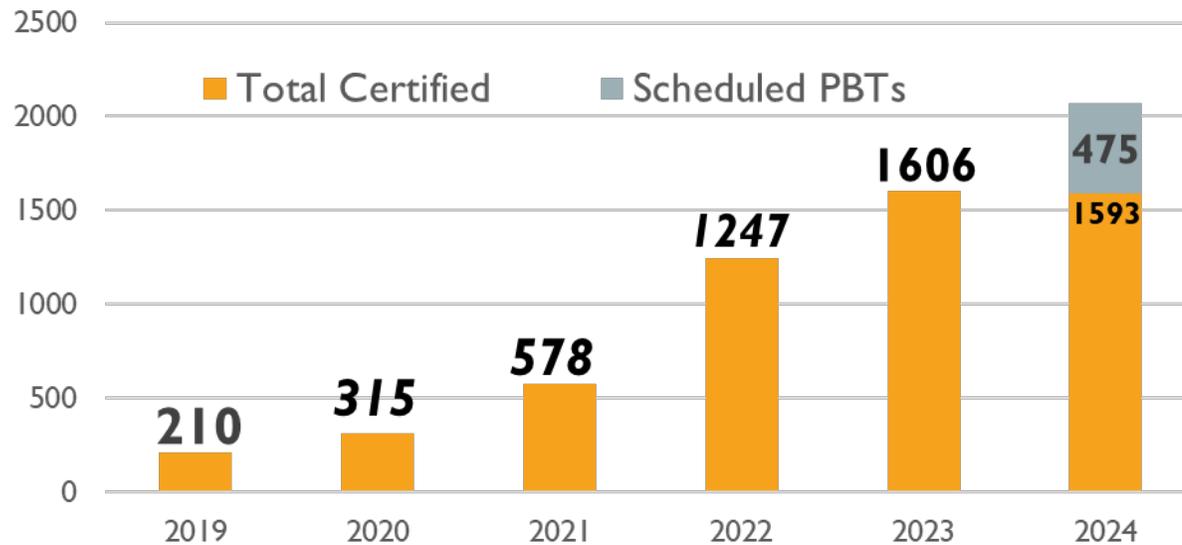




Architectural Glass
& Metal Technician
CERTIFICATION PROGRAM

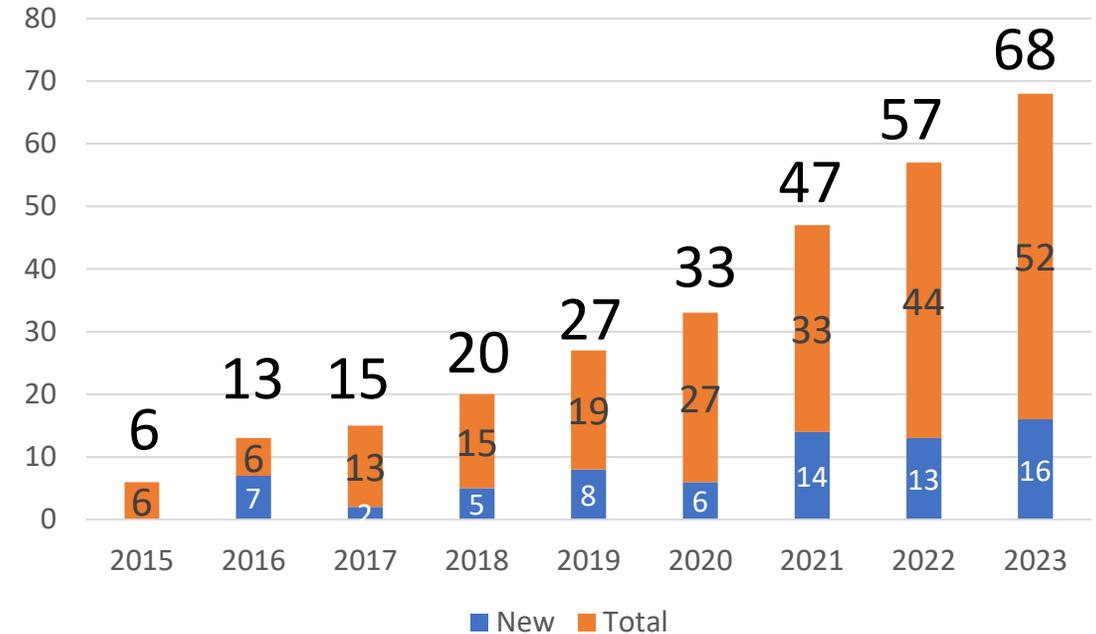


AGMT Certified Glaziers



- Continued steady growth (**1593** currently certified)
- Recertification of 2019 Certified Glaziers in 2023
- Invited to test **live** at **Glassbuild** in September

NACC Certified Glazing Contractors



- **16 New** NACC Certified Contractors in 2023
- **68 Total** NACC Certified Contractors
- **1438 projects** with NACC in specifications during 2023 according the Dodge Construction Analytics

NGA GLASS CONFERENCE:

Charleston 2024

February 05, 2024 – February 08, 2024



Your trusted industry resource, setting the
standards for fenestration and glazing

FGIA Update

Amy Becker – Glass Products Specialist



FGIA Glass Products Council (formerly IGMA)

IGMA Certification

Final Approval to Technical Steering

- Desiccant
- Design Considerations for Over-Sized Units
- IG Manufacturing Quality Procedure
- IG Sealant
- Vacuum Insulating Glass QA for IG Spacers
- Guidelines & Objectives

Final Approval to Innovation Steering

- IG Durability Testing re: Edge Seal System

IG Technical Services

Final Approval to Technical Steering

- Dimensional Tolerances
- Glazing Guidelines
- Multiple Cavity IGU's
- Thermal Stress
- Visual Quality
- Thin Glass – Multi-Cavity IGUs
- Preventing Glass Breakage
- Acoustical Documents
- {*Preventing IG Failures Doc.*}

Final Approval to Code Action Steering

- Glass Strength Design

GPC Research

Final Approval to Innovation Steering

- Advanced Fenestration Testing
- Gas Measurement Validation
- Glass Research Fund

Reports to Sustainability Steering

- Processed Glass PCR

Final Approval to Technical Steering

- ASTM E2190 Field Correlation
- Vacuum Insulating Glass Loads
- Laser Absorption Spectroscopy

MARKETING AND EDUCATION COMMITTEE TASK GROUPS/PROGRAMS FOR IGUS

- **Do's and Don'ts of Glass Safety (IGMA TM-5000)**
 - Updated in 2022
- **IG Fabricator Workshop In Person**
- **IG Fabricator Workshop Video Series**
- **Preventing IG Failures Video Series**
- **Leadership Development Program**

2024 IG FABRICATOR WORKSHOP (IN PERSON)

- Hands on, participatory event
- Addresses most important aspects of fabricating and testing IG units
- Next in-person session scheduled for November, 2024
- Contact education@fgiaonline.org to learn more



Typical Modules for the Workshop

- Station 1: Glass Cutting & Washing
- Station 2: Spacer and IG Fabrication
- Station 3: Sealants/Hot Melt Sealant/Sealant Adhesion & Butterfly Test
- Station 4: Volatile Fog
- Station 5: Gas Filling and Measurement
- Station 6: Desiccants and Desiccant Matrix
- Station 7: Forensic Investigation of IGU Failures
- Station 8: Frost Point

2024 IG FABRICATOR WORKSHOP (IN PERSON)

- Watch your email in August for registration information
- REGISTER EARLY because spots fill quickly
- [FGIAOnline.org/ Education Programs/ IG Fabricators Workshop](https://FGIAOnline.org/Education/Programs/IGFabricatorsWorkshop)



FUNDAMENTALS OF FENESTRATION

An FGIA Professional Education Program

This introductory educational program was completely revamped in 2022 and is now available as a more dynamic and engaging online education offering. It provides basic terminology and standards for windows, doors and skylights, covering both residential and light commercial products, as well as commercial and architectural applications. The online course is designed for use by several audiences, as well as qualifying for continuing education credits.

Contact education@fgiaonline.org to learn more



Fundamentals of Fenestration

Companies looking for an introduction to the fenestration industry won't find more relevant content than the Fundamentals of Fenestration. This course would be especially helpful as part of a company's onboarding and training program for inside sales reps, customer service teams and anyone new to the industry that needs a basic understanding of fenestration products.

The goal of Fundamentals of Fenestration is to help participants construct a basic working knowledge of the fenestration industry. Those who complete this program will be able to identify fenestration products, recognize basic terminology, discuss material types used for manufacturing and installation and describe the basics of performance, testing and certification. Audiences for the program typically include engineers, consultants, testing companies, manufacturers and contractors.

IGMA CERTIFICATION COMMITTEE TASK GROUPS

- **Desiccant (IGMA TM-2100)**

- Suggestion to develop a common industry quality control test for fabricators to perform to determine desiccant characteristics

- **Durability Testing of Internal Components - Design of Experiments**

- To identify and determine if an IG units' internal elements that contact the edge seal system affect the durability of the IG unit.
- Develop and validate a durability testing methodology.

- **IG Sealant (IGMA TM-2400) 1 section**

- Combine the TM-2403 and TR-1000 into TM-2400
- Develop a technical publication, TB-2500, IG Fabricator Considerations for Sealants Usage

- **Quality Management System (IGMA TM-**

- 4000/4100) Re-reviewing**

- Currently revising, restructuring and updating the document

- **Quality Assurance for IG Spacers (IGMA TM-2000) Finalizing**

- New group 2022 – review and revise as necessary

- **Vacuum Insulating Glass (VIG) and VIG Load Resistance Testing TG**

- Develop a technical bulletin to act as a primer to the industry on VIG. (completed)
- Develop glazing guidelines for VIG (IG Tech Services)
- Develop a test / standard specification for VIG. (Completed at ISO, creating working groups in ASTM)
- Develop Certification Program guidelines to certify VIG.

IGMA CERTIFICATION COMMITTEE HIGHLIGHTS

- **Durability Testing of Internal Components** which affect the edge seal
- **VIG** - Loads Resistance Testing and IGMA document update
- **IG Manufacturing Quality Assurance - TM-4000** - complete revamp of the prior guidance and generalized to help regardless of the organization's size

TECHNICAL SERVICES COMMITTEE

TASK GROUPS

- **Design Considerations for Multiple Cavity IGU's (IGMA TM-1300)**
 - New Task Group in 2022, Adding VIG
- **Dimensional Tolerances (IGMA TB-1200)**
- **Glazing Guidelines (IGMA TM-3000)**
 - GPC ballot next
- **Visual Quality Guidelines (IGMA TM-3100)**
- **Glass Strength Design (Joint with Fen BC, Fen-Can, AVFQ)**
- **Preventing Glass Breakage (SIGMA TR-3401)**
 - New Task Group in 2022, to review
- possible updates
- **Thermal Stress (IGMA TM-1500)**
 - New Task Group in 2022, to review and revise
- **Guidelines for Use of Capillary/Breather Tubes (TB-1601) (joint with NGA)**
 - In ballot at FGIA

TECHNICAL SERVICES COMMITTEE HIGHLIGHTS

- **Glazing Guidelines (IGMA TM-3000)**
 - Close to ballot
- **Dimensional Tolerances (IGMA TB-1200)**
 - Close to ballot
- **Capillary Tubes (joint with NGA) TB-1601**
 - At ballot
- **Thermal Stress TM-1500**
 - Close to ballot

GPC RESEARCH COMMITTEE HIGHLIGHTS

- **Vacuum Insulating Glazing (VIG) Load Resistance**
 - RFQs for testing going out soon
 - Design of Experiments then testing
- **25-Year Field Correlation Study** - measurements validated - Survey to GPC about design
- **On the Radar:**
- **Gas Content Measurement and Validation**
 - Verification of SES (GasGlass) device.
 - Alternate language submitted to ASTM E2649 Determining Argon Concentration in Sealed Insulating Glass Units Using Spark Emission Spectroscopy
 - Next step, Beta testing
- **Laser Absorption Spectroscopy**
 - To be started on the completion of the SES validation

FGIA UPDATE

- The 2022 edition of AAMA/WDMA/CSA 101/I.S.2/A440, NAFS — North American Fenestration Standard/Specification for windows, doors, and skylights (NAFS) - PUBLISHED – January 2023
- Seismic Documents are under review - AAMA 501.4, .6, and .7
- Updates to the Fenestration Masters and Education Programs

UPCOMING EVENTS

ANNUAL CONFERENCE

FEBRUARY 19 - 22, 2024



Omni Amelia Island Resort
Amelia Island, FL

ANNUAL CONFERENCE HIGHLIGHTS

- **IG Fabricator Workshop** - Hands on - Forensic Analysis
- **Desiccant** Educational Discussion - Shulin, Gerhardt, Brian talking all about desiccant
- **Innovation** Roundtable
- Florida Building Codes and Sea Turtle Research
- Importance of Surface Preparation for long-term performance of sealants and coatings

UPCOMING EVENTS

2024

- [February 19-22 \(Annual Conference\)](#) - Omni Amelia Island Resort - Amelia Island, FL
- April 3 (FENBC Region Industry Summit) - Virtual
- April 30 (Southeast Region Meeting) - Virtual
- June 3-6 (**Summer Conference**) - Le Westin - Montreal, QC
- July 16 (Western Region Summit) - Virtual
- [September 16-19 \(Fall Conference\)](#) - Hyatt Regency Minneapolis - Minneapolis, MN
- November 5-7 (IG Fabricator Workshop) - Intertek - Plano, TX
- November 6 (FENBC Region Technical Summit) - Northview Country Club - Surrey BC.

2025

- **February 17-20 (Annual Conference)** - Hyatt Regency Orlando, FL
- June 16-20 (Summer Conference) - Virtual
- October 6-9 (**Fall Conference**) - JW Marriott Indianapolis, IN



THANK YOU !!



NFRC Update – New Commercial Rating Program

- New Commercial Trendline Approach (CTA) program.
 - Offers both commercial product and custom-project rating paths.
 - Promising to be more stream-lined, easier to generate label certificates online, although one new change will require an installer declaration.
 - NFRC rated size performance as well as project size performance values.
- Status update:
 - All technical and rating documents have been completed, but waiting on staff for program implementation.
 - Initial lab simulator training complete.
 - Completed development and beta testing of new web-tool for generating product label certificates (see following slides).
 - Pilot program launching April / May.

NFRC 715 – Label Certificate Tool

- ▶ **Product Selection – Framing System Product Info**
 - ▶ **Select Framing System Manufacturer**



NFRC 715 - Commercial Energy Performance Certification Program: Products & Projects

Installer Declaration for Commercial Product Label Certificate

Framing System Product Information

Framing System Manufacturer *

Generic ▾

- Generic
- Generic 2
- Generic 3

Framing System Model *

Curtain Wall - Product 3 - SG only x ▾

Framing Product Type

Curtain Wall

This product line is available in several mullion depths; 4", 6" and 8". The group leader was used and may represent all product mullion depths 8" and under.

NFRC 715 – Label Certificate Tool

- ▶ Product Selection – Glazing System (COG) Info
 - ▶ Select one of the WINDOW glazing IDs from the imported .mdb file

Glazing System (COG):

Window ID *

U-Factor (wintertime) W/m2-K

Nominal Overall Width mm

Thickness (mm)	IGDB	IGDB Version	Certification
	2003	IGDB v85.0	#
surface #2	0.840	Float Glass - 5mm	4.700
surface #3	0.840		
surface #4	0.840		
surface #5	N/A	N/A	N/A
surface #6	N/A		
surface #7	N/A	N/A	N/A
surface #8	N/A		

NFRC 715 – Label Certificate Tool

▶ Product Selection – Spacer Systems

- ▶ Select the spacer system Name and Manufacturer from the drop-down (for TG S1 and S2 shall be specified)

* Gap fill details and spacer system:

S1 Gap information

Gas fill %

Air

Width (mm)

15.3

mm

Spacer System Name and Manufacturer *

Generic Aluminum (Box Spacer)

S2 Gap information

Gas fill %

N/A

Width (mm)

N/A

Note: If the spacer system name and manufacturer is not known or available, selected system will result in a default conservative keff value used for the project.

N/A

Generic Aluminum (Box Spacer)

Generic Mild Steel (Box Spacer)

Generic Stainless Steel (Box Spacer)

Generic Aluminum or Mild Steel (Hybrid, Composite, U-shaped, or Thermal Break Spacer)

Generic Non-metallic (Any)

Generic Stainless Steel (Hybrid, Composite, U-shaped, or Thermal Break Spacer)

Helima Helvetion International (Helima EVO 13.5mm Spacer)

Quanex Building Products (SuperSpacer Triseal Premium Plus)

Ramapo (Kodeispace 4SG)

Technoform (TGI Box Spacer)

Technoform (TGI M Spacer)

Installer Declaration Form

- Provides the information used to generate the label certificate.

Appendix A: NFRC PRODUCT CERTIFICATION PROGRAM

Installer Declaration for Commercial Product Path Certification Label Certificate

Project Name _____
 Entity Name Responsible for Installation _____
 Project Location _____

The following materials are being supplied and installed for this project

1. Framing System Product Information

Framing System Manufacturer _____
 Framing System Model _____
 Framing Product Type _____ (based on Table 4-3 of ANSI/NFRC 100)

2. Glazing Unit Product Information

Glazing Unit Manufacturer _____ (e.g. ABC Insulating Glass)

Glass Lite/Pane Descriptions

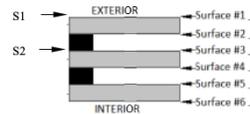
- Low-E surface and coating description: #1 _____ #2 _____ #3 _____
 #4 _____ #5 _____ #6 _____

For laminates, provide the layer composition: _____

- Tint and/or substrate details (pane thickness): _____

Lite/Pane Location and product description _____

Example IGU



Airspace Gas Fill / % (S1) _____ (e.g. 90% argon/10% air)

IG Spacer System Width (S1) _____ (e.g. 13mm)

IG Spacer System Name and Manufacturer (S1) _____ (e.g. Best Spacer by ABC)

k_{sp} of spacer system provided by spacer manufacturer (S1) _____ (e.g. 0.321 Btu/ft²-ft-F)

Airspace Gas Fill / % (S2) _____ (e.g. 90% argon/10% air)

IG Spacer System Width (S2) _____ (e.g. 13mm)

IG Spacer System Name and Manufacturer (S2) _____ (e.g. Best Spacer by ABC)

k_{sp} of spacer system provided by spacer manufacturer (S2) _____ (e.g. 0.321 Btu/ft²-ft-F)

If the spacer system k_{sp} is not known or available, checkmark the spacer material composition and shape that will be used. The selections below result in default spacer system k_{sp} values to be used for the project which are conservative.

<input checked="" type="checkbox"/>	Spacer Composition (Highest Conductivity)	Spacer Shape
<input type="checkbox"/>	Aluminum	Box Spacer
<input type="checkbox"/>	Mild Steel	Box Spacer
<input type="checkbox"/>	Stainless Steel	Box Spacer
<input type="checkbox"/>	Aluminum or Mild Steel	Hybrid, Composite, U-shaped, or Thermal Break Spacer
<input type="checkbox"/>	Non-metallic	Any
<input type="checkbox"/>	Stainless Steel	Hybrid, Composite, U-shaped, or Thermal Break Spacer

IG Organization and IG Certification Number (as applicable): _____

Center of Glass properties (wintertime)

U factor _____ (e.g. 0.29 Btu/ft²-ft-F)

SHGC _____ (e.g. 0.25)

VT _____ (e.g. 0.55)

Additional Information: _____

_____, as the designated agent for _____ do hereby attest that the foregoing information is true to the best of my information, knowledge, and belief.

Signature: _____ Date: _____

Add disclaimer here about invalidating certificate if information supplied is not correct, and any other issue NFRC legal counsel suggest.

Product Label Certificate

NATIONAL FENESTRATION RATING COUNCIL LABEL CERTIFICATE

NFRC Project Certificate:

Issue Date: 10/11/2023
 Certificate #: 1697038756336

Project Information

Project Name: ABC Glazing
 Address: 6305 Ivy Lane, Greenbelt, MD, 20770

 <p>Generic Curtain Wall - Product 3 - DG only Curtain Wall</p>	
ENERGY PERFORMANCE RATINGS	
U-Factor (U.S. / I-P)	Solar Heat Gain Coefficient
0.6	0.7
ADDITIONAL PERFORMANCE RATINGS	
Visible Transmittance	Air Leakage (U.S. / I-P)
0.74	≤0.3
Condensation Index	-
56	

CUSTOM SIZE PERFORMANCE RATINGS (2000MM X 2000MM)		
U-Factor (U.S. / I-P)	Solar Heat Gain Coefficient	Visible Transmittance
0.60	0.70	0.74