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# Notice of Changes to Certification

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**To:** Certified IGCC® & IGMAC® Licensees, Laboratories, Auditors, and Participants

**From:** Administrative Management Systems, Inc (AMS, Inc.) IGCC® & IGMAC® Certification Body

**Date:** January 31, 2025

**Subject:** **NEW** Normalized Procedural Guide: ***The Procedural Guide for Use in the IGCC®/IGMA® Certification Program and the IGMAC® Certification Program (The Procedural Guide)***

Both the IGCC Certification Committee and the IGMA/IGMAC Certification Committees have worked towards the development of a “Normalized” Procedural Guide: ***The Procedural Guide for Use in the IGCC®/IGMA® Certification Program and the IGMAC® Certification Program***. The final draft (attached) of this *Procedural Guide* has been reviewed and approved by both Certification Programs with an implementation date of **January 31, 2025**.

## **The “Normalization” Concept**

For anyone who is new to the “normalizing” process, the concept is that the two separate Insulating Glass (IG) Certification Programs (IGCC®/IGMA® Certification Program and the IGMAC® Certification Program) would both benefit from utilizing one set of Program Guidelines (certification requirements and guidelines for fabricators wishing to certify their insulating glass units (IGUs) in one or both certification programs). The word “Normalized” has been used intentionally to describe the process by which the IGMAC® and IGCC®/IGMA® Certification Programs would utilize the same *Procedural Guide*. So that it’s not misconstrued that the programs are themselves combining in any way, only that the certification procedures have been “normalized” to the extent practical to achieve alignment between the IGMAC® and IGCC®/IGMA® Certification Program processes.

## **What are the benefits of a normalized *Procedural Guide*?**

1. A more streamlined set of guidelines = less confusion by all parties
2. A single document to reference for two programs (of which several participants certify under both)
3. The best aspects of both programs now in one set of Guidelines

4. Ease of updating requirements for both programs in one place to accommodate new product trends, developments and innovations
5. Autonomy preserved for management of the two separate programs

### **What Isn't and Is Changing**

The normalized *Procedural Guide* is designed as one set of guidelines, if there is a difference in requirements between the two programs they will be defined separately within the guideline. If only the guideline is present without separate definition for IGCC vs. IGMAC, then that guideline would apply to both programs as stated. **Please review the Normalized *Procedural Guide* carefully as this is a summary of the most significant information.**

### **What ISN'T Changing**

<b>Process &amp; Proc. Guide Reference if Applicable</b>	<b>IGMAC</b>	<b>IGCC/IGMA</b>
<b>License Agreement</b>	IGMAC-AMS Standard License Agreement (MD-030)	IGCC-AMS Standard License Agreement (ID-030)
<b>Test Standards/Methods – Section 1.1 Certification Concept</b>	CAN/CGSB 12.8	ASTM E2190
<b>Branding – Section 1.2 Relationship between IGCC, IGMA, and FGIA</b>	FGIA owns the IGMA® and IGMAC® mark	IGCC owns the IGCC® mark
<b>Invoicing of Fees</b>	FGIA will invoice IGMAC participants	IGCC will invoice IGCC participants
<b>Ownership of Test Specimens &amp; Reports – Section 3.0 Frequency of Testing</b>	IGMAC® Licensees retain the property of	IGCC®/IGMA® Program retains the property of
<b>Auditing Cycle – Section 3.0 Auditing Cycle</b>	Twice per year audits in the First (F) March 15 -Sept.14 and Last (L) half of the calendar year Sept.15-March 14	Twice per year audits in the First (F) Jan. 1 – June 30 and Last (L) half of the calendar year July 1 – Dec. 31

**What IS Changing**

Process & Proc. Guide Reference if Applicable	IGMAC	IGCC/IGMA
<b>Application</b>	IGCC and IGMAC Licensee Application (ID-06)	
<b>Test Frequency</b>	After initial certification (prototype) testing, and compliant second year certified testing, certified product testing shall occur once every two (2) years. Retest (RT) status will <b>NOT</b> affect (2) year cycle unless failure of retest occurs.	
<b>Expiration Date</b>	Expiration dates will become obsolete; to remain certified, routine fabrications must take place during the cycle set forth by the certification body, & compliant test results must be maintained.	N/A
<b>Suspension</b>	Suspension Status will become obsolete. Failure to comply with program requirements (testing/QA/other) may result in decertification from the program & would require full recertification to rejoin.	N/A
<b>Certified Products Directory–Sec. 6 Documents &amp; Agreements</b>	Single document including the normalized <i>Procedural Guide</i> and both the IGCC®/IGMA® & IGMAC® product listings. Published annually in February and August	
<b>Quality Assurance Requirements &amp; Audit Process–10.0 Quality Assurance (QA) Program</b>	While conceptually the QA Requirements are the same, the forms & documentation will follow the current IGCC® format – IGCC & IGMAC Plant & Product Audit Forms	No Change
<b>Waiver of Retest</b>	Waiver of Retests will become obsolete. Any allowable changes in construction will be documented on audit form by auditor or by correspondence to the administrative office from fabricator.	N/A
<b>GCIA Requirements &amp; Retesting–Sec.11 Gas Content Initial &amp; After Weathering Certification &amp; Testing (GCIA)</b>	Each of the tested units must have a gas concentration of 50% or greater or this will be considered a failure. Participants will require a full retest of both gas & durability if there is a failure of any kind.	No Change
<b>Multi-Cavity Test Frequency – Sec. General, G.15 Multi-Cavity</b>	If the fabricator has a dual pane and triple pane of the same construction certified under <b>separate</b> IGCC numbers, both the dual and triple pane certifications will be required to test every time. If the fabricator has a dual pane and triple pane of the same construction under the <b>same</b> certification number, then the triple certification would be tested every four years with the dual pane certification tested intermittently.	No Change

## Timeline for Implementation

**The Procedural Guide for Use in the IGCC®/IGMA® Certification Program and the IGMAC® Certification Program** will be published for use January 31, 2025.

- New test frequency and quality assurance requirements will be effective for **IGMAC participants** at the start of the **First Half Audit Cycle on March 15<sup>th</sup>, 2025**.
- Test frequency requirements and quality assurance requirements for **IGCC participants** will be effective at the start of the **First Half Audit Cycle on January 1, 2025**.

A grace period will be enstated to assist all parties through this transition. All procedural and quality assurance nonconformities will be documented but extensions and additional guidance will be offered by IGMAC® program staff to resolve the nonconformities. **This period will end March 15<sup>th</sup>, 2026.**

## Laboratories & Auditors

Laboratories and Auditors can expect communication in the coming weeks and months with additional details on what to expect, protocol changes, and additional training.

## Contact Us

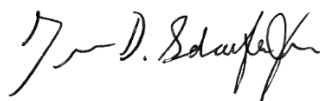
FGIA and AMS remain adamant that feedback from both IGCC®/IGMA® and IGMAC® participants is crucial to the success of each program. Information related to participation at the annual IGCC®/IGMA® Certification Committee meeting can be found here: <https://igcc.org/meetingevents.aspx>, and you can request to be added to the meeting attendees mailing list at any time.

Questions or Inquiries should be directed to:

[IGCC@amscert.com](mailto:IGCC@amscert.com) or [IGMAC@amscert.com](mailto:IGMAC@amscert.com)

Thank you for your attention to this matter and thank you for your support of the IGCC®/IGMA® and IGMAC® Certification process.

Best regards,



Terry Schaefer  
Administrative Manager



February 2025

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**PROCEDURAL GUIDE**

(IGCC® Document ID-07)

**INSULATING GLASS CERTIFICATION COUNCIL AND FENESTRATION AND GLAZING INDUSTRY ALLIANCE  
IGCC®/IGMA® AND THE IGMAC®  
CERTIFICATION PROGRAMS FOR SEALED INSULATING GLASS**

**This procedural guide is maintained by IGCC in coordination with FGIA as an overview of administrative procedures and routine operations of the certification programs.<sup>1</sup>**

**1.0 FOREWORD**

**1.1 Certification Concept (Modified 1/2025)**

Acceptance of certified sealed insulating glass comes with the conviction that such certification assures a high level of quality and the integrity of the identifying mark or certification label is being reliably maintained by a competent certifying agency.

The existing ASTM and Canadian General Standards Board (CGSB) specification(s) for sealed insulating glass provides a sound technical basis for the required quality of sealed insulating glass. With the addition of independent administration plus periodic routine in-plant visits and product evaluation, a program of product certification is developed in accordance with accepted standards. The certification programs described here are predicated upon the concept of independent and impartial administration of the certification procedures in the IGCC® and the IGMAC® license agreements.

To ensure administration of the certification program in a uniform and equitable manner, this procedural guide has been prepared for the information and guidance of the licensees.

It should be noted that there are several agreements already established that are the governing documents for the operation of each of the certification programs. This procedural guide, which is not an extension of that document, serves merely to describe the administrative procedures and routine operation of the certification programs.

The standards utilized for authorizing certification are set as ASTM E2190-19 for the IGCC®/IGMA® program and CAN/CGSB 12.8-2017 for the IGMAC program.

**1.2 Relationship between IGCC, IGMA and FGIA (Added 1/2025)**

This procedural guide is intended to address two separate programs; the IGCC®/IGMA® Certification program which provides testing to the ASTM E2190 standard, and the IGMAC® program which provides testing to the CAN/CGSB 12.8 standard. While these programs are separate, normalization and commonality have been maximized whenever and wherever possible with the intent of creating a single program in the future. Though ultimate responsibility rests with each organization's Board (IGCC and FGIA) the IGCC Certification committee will take the lead to establish requirements for both programs that FGIA could either adopt or decline.

<sup>1</sup> The IGCC Certification Committee and the IGMA/IGMAC Certification Committees have worked towards the development of a "Normalized" Procedural Guide: ***The Procedural Guide for Use in the IGCC®/IGMA® Certification Program and the IGMAC® Certification Program***. The final draft (attached) of this *Procedural Guide* has been reviewed and approved by both Certification Programs with an implementation date of **January 31, 2025**

## **2.0 GENERAL INFORMATION (Modified 1/2025)**

### The Certification Concept

To buyers, specifiers, code officials and users, the IGCC®/IGMA® and IGMAC® certification labels offer the manufacturer's assurance that their sealed insulating glass units have been produced in conformance to Program Requirements and the testing specification(s).

### Who Can Participate?

All fabricators of sealed insulating glass are eligible, on a voluntary basis, to participate in the IGCC®/IGMA® and/or IGMAC® programs.

### Who Conducts the Program?

The Insulating Glass Certification Council (IGCC®) and the Fenestration and Glazing Industry Alliance (FGIA, formerly IGMA®), are the sponsors of this certification program. Under separate Licenses with both FGIA and IGCC®, Administrative Management Systems, Inc. (AMS) administers and governs the certification program under which the Administrator periodically checks and reports compliance of the fabricators of products having the IGCC®/IGMA® or IGMAC® certification label.

### Administration

Administrative Management Systems, Inc. (AMS) is the independent administrator of the certification program(s). AMS maintains the IGCC®/IGMA® and IGMAC® office of certification and handles the routine day-to-day business.

### How Can You Become a Licensee?

The following steps must be accomplished before AMS can authorize a fabricator to use the IGCC®/IGMA® or IGMAC® permanent label:

- a) The fabricator must present a passing prototype report from an approved testing laboratory to the office of certification. Fabrication of prototype test samples shall be witnessed by a representative of AMS during a plant audit, at which time the manufacturer's compliance with the Quality Assurance requirements is validated. (See *Section 10.0*)
- b) The manufacturer signs a copy of the respective License Agreement and sends it to the office of certification. The program sponsor and AMS will countersign this copy and email it to the licensee.
- c) The licensee sends the office of certification payment for the necessary fees (see respective Program Fee Schedules).
- d) After receipt by the office of certification of the above, the administrator validates that particular model and sends to the licensee the respective certification program certificate. The permanent label must be affixed on each certified sealed insulating glass unit.
- e) The certified model will then be listed in the next published Certified Products Directory and on the public websites.

IGCC®/IGMA®: [igcc.org](http://igcc.org)

IGMAC® and FGIA®: [fgiaonline.org](http://fgiaonline.org)

## **3.0 HOW THE CERTIFICATION PROGRAM WORKS (Modified 1/2025)**

American Society for Testing and Materials (ASTM) and Canadian General Standards Board (CGSB) have test methods and specifications for sealed insulating glass. Sealed insulating glass units must meet or exceed the applicable specification before it can be certified.

Recognized independent testing laboratories conduct all tests. The certification committee shall approve all laboratories whose test reports are utilized by this certification program.

As the sole judge of compliance with the applicable specifications, the administrator authorizes a product, which has been approved to be listed in the Certified Products Directory.

Licensees label sealed insulating glass units in accordance with the labeling requirements established by the Certification Committees.

Approved products are listed in the Certified Products Directory, which is published every six months. It is sent to door, sash and building manufacturers, glazing contractors, homebuilders, architects, regulatory agencies and code-making groups, etc. Directory listings contain the licensee's name, plant location and product description.

#### Term of Certification

The administrator verifies the production at the licensee's manufacturing location(s) during twice per year audits. Audits are performed by a representative of the administrator. At the discretion of the Administrator, one audit each year may be performed virtually (more frequent virtual audits may be deemed necessary in consideration of external factors, i.e., public health conditions). During each of these audits, in addition to established plant and product requirements, the fabricator's compliance with Quality Assurance requirements is validated (See *Section 10.0*). The prototype test report must be submitted within one year of the report date in order for the report to be considered as the test for the first year, two audits will take place at which time the auditor will compare current production with the product authorized to use the permanent label.

A. During the first audit in the second year, specimens will be fabricated for testing. The certification programs will require the fabricator to produce the required test specimens. The fabrication of these test specimens is witnessed and verified that they are produced in accordance with the construction certified. During test specimen fabrication, only the auditor and employees of the licensee being audited shall be present. The licensee is instructed to send these test specimens to an approved testing laboratory where they are tested.

- a. Licensees participating under the IGMAC® program must ship specimens, along with a copy of the completed facility audit form, to the laboratory within 90 days from the date of fabrication. Laboratories provide interim reports of testing to the licensees during testing.
- b. Licensees participating under the IGCC®/IGMA® program must ship specimens to the laboratory within 28 days from the date of fabrication. Monthly status reports of testing are provided to the licensee by the office of certification on or about the 15<sup>th</sup> of each month.

#### Auditing Cycle

Compliance of program requirements is assured through twice per year audits occurring in both the First (F) half of the calendar year and Last (L) half of the calendar year. Actual audit assignment dates are at the discretion of the administrator in coordination with participants.

- a. For IGCC®/IGMA® Certification Fees and Lab Pricing list please contact IGCC®/IGMA®: igcc.org
- b. For IGMAC® Certification Fees please contact FGIA®: fgiaonline.org. For IGMAC® Testing Fees please contact the approved testing laboratory.

#### Frequency of Testing

After initial certification (prototype) testing, and second year certified testing, certified product testing shall occur once every two (2) years.

- a. IGCC for the IGCC®/IGMA® program shall retain property of test specimens, reports, and related information upon fabrication (with the exception of prototypes)
- b. IGMAC® licensees shall retain property of test specimens, reports, and related information.

### **4.0 COMPLIANCE SAFEGUARDS**

#### How is Compliance Assured?

Any certified product found in the course of routine audit and evaluation not to be in compliance with the model description or quality assurance requirements is subject to having authorization to use the IGCC®/IGMA® and/or IGMAC® permanent label removed. The licensee is sent a request for clarification giving 30 days in which to demonstrate to the satisfaction of the administrator that the product is in compliance with the model description



that is certified. If the licensee does not respond, a warning of possible removal of authorization to use the certification permanent label is sent giving an additional 30 days to respond. If the licensee does not respond, authorization to use the permanent label is **automatically terminated** at the end of that 30-day period.

In the case of a routine test failing to comply with the specifications, the licensee will be officially notified that within 15 days they must respond by stating that a retest fabrication is requested and by paying all administrative and test fees. If there is no response within the 15 days, authorization to use the IGCC®/IGMA® and/or IGMAC® permanent label is **automatically terminated**. If the retest option is accepted, the auditor will perform an audit and witness fabrication of the retest specimens within 60 days of the notification of failure date (See *Section 13.6* guideline G.16)

#### Challenging a Certified Product

Complaints of non-compliance of certification requirements from any corporation or business source will be investigated promptly upon receipt of the complaint in writing along with an appropriate surety deposit. A minimum surety deposit of \$1,500 will be required for each complaint of non-compliance. The surety deposit will be assessed at the rate of \$300 per man-day plus the reasonable cost of travel and other expenses entailed in resolving such incidents. Refunds of part or all of the surety deposit will be made when applicable. The surety deposit will cover all costs involved, unless the investigation proved non-compliance, in which case all costs will be borne by the licensee found to be in non-compliance.

#### Complaints by Consumers

Only complaints of non-compliance with certification requirements from consumers who are owners or lessees of the premises in which the product has been installed may submit a complaint. The administrator shall receive and log the complaint. It will be the consumer's responsibility to identify the label, information appearing on the spacer or glass and advise the administrator of the same. Note: If no certification label exists, the administrator and IGCC®/FGIA have no further responsibilities and the complaint will not be processed.

Once the consumer has identified the label, name, etc. they should advise the administrator. The administrator shall respond, advising the consumer of the name, address, primary contact, model description and other pertinent information at hand as it pertains to the subject licensee. Note: If the complaint is being made for reasons of product appearance or reasons other than failure to meet certification program requirements, the complaint will not be processed and the consumer shall be advised to contact the licensee fabricator directly. Some fabricators and their dealers or distributors offer warranties on their products. Normal claims, procedures and legal remedies are available to consumers on a state-by-state basis.

If the consumer wishes to determine whether or not a labeled product is in compliance with the model described through an investigation by AMS/IGCC®, the corporation or business challenge procedure shall be utilized. The surety deposit shall be modified to \$400 and charges per man-day and shall be assessed against the surety deposit in the amount of \$300 plus reasonable travel costs and other expenses.

#### Withdrawal of Certified Product (Modified 1/2025)

Any product which has been authorized to use the IGCC®/IGMA® or IGMAC® permanent label may be voluntarily withdrawn from the Certification Program by the licensee at any time. Licensees who desire to voluntarily withdraw from participation in the IGCC®/IGMA® or IGMAC® Certification Program or desire to de-certify specific product(s) must contact the office in writing to request same. Letters and/or emails should be addressed to:

IGCC®/IGMA®  
Insulating Glass Certification Council  
PO Box 730, 205 West Main Street  
Sackets Harbor, NY 13685  
Telephone: (315) 646-2234  
E-mail: [igcc@amscert.com](mailto:igcc@amscert.com)



February 2025

IGMAC®  
Fenestration Glazing Industry Alliance  
1900 E Golf Rd, Suite 1250  
Schaumburg, IL 60173  
Telephone: (847) 303-5859  
Email: [igmac@amscert.com](mailto:igmac@amscert.com) and [igmac@fgiaonline.org](mailto:igmac@fgiaonline.org)

## **5.0 COSTS - What Does the Program Cost?**

### **5.1 IGCC®/IGMA®**

The initial administration fee will be based on the date of authorization to use the IGCC®/IGMA® permanent label in a manner that participation in the Certification Program will be on a February 1 to January 31 basis thereafter. If the authorization date is between August 1 and December 1, 50% of the administration fee for the first year will be charged for participation and will include one audit prior to the following February 1 date. A licensee is invoiced for each item that is certified and listed separately in the Certified Products Directory. An additional invoice for testing laboratory fees will be issued upon fabrication of test units. For current fee schedule, contact the Administrative office or visit [www.igcc.org](http://www.igcc.org).

Testing of these units will not begin until payment has been received. Should failure of these units occur during certification testing, any remaining balance will be refunded to the licensee upon request. (Modified 8/2009)

### **5.2 IGMAC® (Added 1/2025)**

Fees will be set by the Fenestration and Glazing Industry Alliance (FGIA). A copy of the Schedule of Fees can be found at [www.fgiaonline.org](http://www.fgiaonline.org). All costs associated with the fabrication of test units, boxing and delivery to a test laboratory, testing, report, etc., shall be paid by the fabricator.

Testing of these units will not begin until payment has been received.

## **6.0 DOCUMENTS AND AGREEMENTS**

### **Standard License Agreements**

These agreements, incorporating independent program administration and routine, periodic, independent plant audits, sampling and evaluation, govern the relationship between the certification program sponsor, the accredited Certification Body (CB), the administrator (AMS), and the licensee.

Future amendments or revisions to the Standard License Agreements will be recommended by the respective Certification Committees and enacted by the respective Board of Governors/Directors.

### **IGCC® Certification and Administrative Service Agreement**

This agreement entered into by IGCC® and Administrative Management Systems, Inc. (AMS) governs the relationship between IGCC® and AMS, the independent administrator. In general, it provides that the administrator:

- a) Routinely audits licensee fabrication facilities twice per year, witnesses fabrication of specimens for testing at one of the approved testing laboratories;
- b) Has the right to witness any and all testing;
- c) Reviews all test reports in order to determine compliance of the certified product with the specifications;

- d) Audits and recommends for approval, all test laboratory facilities for use in these certification programs Test laboratories are recognized and/or approved by the Certification Committee;
- e) Publishes and mails/emails the Certified Products Directory twice each year and handles all routine clerical duties with respect to certification matters;
- f) In all of its actions acts in the name of IGCC® and the respective certification program.

IGMAC® Certification and Services Agreement (Added 1/2025)

This agreement entered into by FGIA® and Administrative Management Systems, Inc. (AMS) governs the relationship between FGIA® and AMS, the independent administrator. In general, but not limited to, it provides that the administrator is responsible for:

- a. Routinely auditing licensee fabrication facilities twice per year, witnesses fabrication of specimens for testing at one of the approved testing laboratories;
- b. Exercising their right to witness any and all testing;
- c. Reviews all test reports in order to determine compliance of the certified product with the specifications;
- d. Publishing and distributing mails/emails and the Certified Products Directory twice each year and handles all routine clerical duties with respect to certification matters;

Procedural Guide

This guide outlines program procedures in accordance with the provisions of the applicable License Agreements and the Administrative Service Agreements, for the guidance of those concerned with the procedural details of the Certification Programs' operations. It covers the steps to be taken in any given procedural situation in the interest of equitable and uniform treatment of licensees and the preservation of the integrity of the certification program(s).

Certified Products Directory (Modified 1/2025)

Each program's directory is a publication that contains a listing of the certified sealed insulating glass units of each licensee.

Certification Label

The licensee permanently affixes this certification mark to each unit of certified sealed insulating glass. This certification mark may be referenced to the Licensee's listing in the Certified Products Directory. The listing then provides a product description including the company name, plant location, etc. (Modified 8/2009)

**7.0 PROGRAM RESPONSIBILITY**

IGCC is a legal entity and the sole owner of the IGCC®/IGMA® Certification Program. FGIA is a legal entity and the sole owner of the IGMAC® Certification Program. FGIA has licensed the IGMA mark to IGCC for use in the IGCC®/IGMA® Certification Program.

IGCC Board of Governors

The IGCC Board of Governors overall responsibility is for the well-being and acceptance of the Certification Program by the industry, building officials and the public. It also bears legal corporate responsibility.

FGIA Board of Directors

The FGIA Board of Directors may make recommendations to the IGCC Board (or it's committees) regarding the IGCC®/IGMA® or IGMAC® Certification Program and procedural guide, and may appeal any decision of IGCC regarding certification or the IGCC®/IGMA® and IGMAC® Certification Program.

IGCC Certification Committee

The IGCC Certification Committee has the responsibility for the general procedure and policy pertaining to operation of the Certification Programs. As a part thereof, it: (Modified 8/2009)

- a) establishes "guidelines",
- b) determines the applicability of the specifications in a specific situation where a question is raised by a licensee or the administrator,
- c) approves test laboratories,
- d) determines which of the specifications are to be designated effective for the purposes of product certification and the date or dates on which they become effective, and
- e) recommends to the IGCC® Board of Governors changes to be made in the IGCC® /IGMA® License Agreement.

IGMA/IGMAC Certification Committee (Added 1/2025)

The IGMA/IGMAC Certification Committee of FGIA:

- a) serves to review the activities or directives of the IGCC Certification Committee
- b) may adopt or decline actions pertaining to the IGMA, IGMAC or FGIA marks or brands, guidelines or interpretations
- c) recommends to the FGIA® Board of Directors changes to be made in the IGMAC® Standard License Agreement.

**8.0 LABEL REQUIREMENTS (Modified 1/2025)**

THE IGCC®/IGMA® AND/OR IGMAC® CERTIFICATION LABEL MUST BE PERMANENTLY MARKED ON A VISIBLE PORTION OF EACH SEALED INSULATING GLASS UNIT AFTER INSTALLATION OR IT IS NOT CERTIFIED BY THE MANUFACTURER TO THE PUBLIC. The label shall be etched, sand blasted, embossed, printed, painted or otherwise permanently marked on the spacer or at least one component pane of the sealed unit. (See Note #1 below).

8.1 IGCC®/IGMA®

- Label must be in block letters and have a minimum height of 0.05 inches (1.27 mm)
- Must contain IGCC®/IGMA® with registered trademarks
- Must contain the company identification (company name, trade name, company code, etc.)
- \*Plant code (as applicable, only required when there is more than one plant with certified products under the same company name)
- Date code spanning no more than 12-month period, plus or minus three months

8.2 IGMAC®

- IGMAC® trademark
- Company name
- Location of production facility (city, town, etc)
- Year of manufacture

The permanent label must not be sold, transferred, or otherwise disposed of in any manner other than being affixed to the licensee's certified production. The permanent label must not be affixed to any product from which certification has been withdrawn or which is produced with a process basically different from the one used when certification was obtained.

Example of Minimum Label:

**For IGCC/IGMA:**            **ABC Glass Co. (#\*) IGCC®/IGMA® '24**  
**For IGMAC:**                **ABC Glass Co. City IGMAC® '24**  
**For Both:**                 **ABC Glass Co. City (#\*) IGCC®/IGMA® IGMAC® '24**

\* The “#” is used to designate the plant code. A plant code will only be required when there is more than one plant with an IGCC®/IGMA® certified product operating under the same company name.

The respective permanent label is listed under each company's name in the "Certified Products" section of this directory.

Note#1:

When an NFRC certified window, door, skylight fabricator also fabricates IGCC®/IGMA® certified IG units and glazes these IG units into their own NFRC certified product, the IGCC®/IGMA® permanent label may appear on the window, door, skylight NFRC permanent label in lieu of the certification programs' permanent label appearing on the actual IG unit. IGCC®/IGMA® required label content and NFRC permanent label requirements shall apply. (Modified 8/2010)

For Example:

IGCC®/IGMA®

NFRC 123 - N - 456 ----- ABC Windows - (Plant Code) IGCC®/IGMA® 2023
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IGMAC®

NFRC 123 - N - 456 ----- ABC Windows - Dallas IGMAC®2023
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IGCC®/IGMA® & IGMAC® (Both)

NFRC 123 - N - 456 ----- ABC Windows - Dallas (Plant Code) IGCC®/IGMA® IGMAC® 2023
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**9.0 ADVERTISING GUIDELINES (Modified 1/2025)**

The following concepts are important to remember whether you are a participant, licensee in the IGCC®/IGMA® and/or IGMAC® Certification Program(s), or a supplier to the sealed insulating glass industry. This discussion is intended to provide you with an accurate background description of the certification programs, to help you avoid making possibly misleading, deceptive, or ambiguous statements regarding the programs in the advertising of your products. (Modified 8/2009)

- 1) IGCC®/IGMA® and IGMAC® are the sponsors of certification programs. IGCC®/IGMA® and IGMAC® do not certify products. Licensees certify that their products comply with the specific program requirements.
- 2) The administrator audits laboratories and checks their equipment, audits licensees' production and fabrication of specimens, and validates test reports and certification claims.
- 3) Laboratories test specimens to specific test methods and specifications referenced by the certification programs.
- 4) Licensees "certify" their products, affirming that their products are constructed similarly to specimens which were audited, tested, and found to pass the stated criteria. A Licensee's Certification Statement is the imprinting, sandblasting, etching or other form of permanent marking of an IGCC®/IGMA® or IGMAC® certification program designation to its product.

- 5) A licensee may specify that a specific certified product is certified under the IGCC and/or IGMAC Certification programs, respective of the certification program under which said product is certified (it may be both in some instances).
- 6) Unit specimens, not their components, are tested under the IGCC®/IGMA® or IGMAC® program. Thus, if you are a supplier to the industry, statements indicating that your components have complied with the test methods would be incorrect. A better nomenclature for example, would be, that "Units tested to ASTM E2190 (CAN/CGSB 12.8 for IGMAC®) contained our X component have been found to meet the requirements of the specification(s)."
- 7) Should you have any questions concerning either Certification Program, please contact:

**IGCC®/IGMA®**

Insulating Glass Certification Council  
PO Box 730, 205 West Main Street  
Sackets Harbor, NY 13685  
Telephone: (315) 646-2234  
E-mail: [igcc@amscert.com](mailto:igcc@amscert.com)

**IGMAC®**

Fenestration Glazing Industry Alliance  
1900E Golf Rd, Suite 1250  
Schaumburg, IL 60173  
Telephone: (847) 303-5859  
Email: [igmac@amscert.com](mailto:igmac@amscert.com) and [igmac@fgiaonline.org](mailto:igmac@fgiaonline.org)

- 8) **\*\*ANSI/ANAB Disclaimer**  
Although both the IGCC®/IGMA® and IGMAC® Programs are ANSI/ANAB-accredited and use the ANSI/ANAB accreditation symbol on its publicity material the certified Licensee cannot use the ANSI/ANAB trademark nor the ANSI/ANAB accreditation symbol, on any of its products, packaging, stationary, letterheads, or any other form of media.

**10.0 QUALITY ASSURANCE (QA) PROGRAM**

IGCC®/IGMA® and IGMAC® require licensees to have a working quality assurance program for the fabrication of insulating glass. IGCC® has established use of the IGMA TM-4000-02(07) "Insulating Glass Manufacturing Quality Procedures Manual", though the direct use of the TM-4000-02(07) is at the participants discretion, and not a requirement. The IGMA TM-4000-02(07) "Insulating Glass Manufacturing Quality Procedures Manual," an FGIA technical manual which establishes general requirements for quality systems and provides practical solutions for implementing such a system. IGCC®/IGMA® and IGMAC® do not define the specifics of the quality assurance system which should be appropriate for the type, range and volume of work performed.

Adherence is verified during twice per year audits. These requirements were adopted to improve the overall quality of IG units in the program, and also to satisfy requirements established by the Department of Housing and Urban Development, HUD, the National Fenestration Rating Council (NFRC) and other regulatory and consumer driven organizations.

A licensee's QA program shall contain the following: (Modified 02/03/2015)

- 1) A quality systems manual
- 2) A designated person responsible for quality assurance
- 3) Process Control
- 4) Inspection and Testing (Spacer, Desiccant, Sealant, Gas Fill, Finished Product, Glass)
- 5) Calibration

- 6) Non-Conforming Products and Corrective Action
- 7) Storage and Handling
- 8) Field Service
- 9) Internal Quality Audits
- 10) Training
- 11) Statistical Techniques

### **11.0 GAS CONTENT INITIAL AND AFTER WEATHERING CERTIFICATION AND TESTING (GCIA)**

A licensee must certify to seal durability requirements to participate in the gas content program. The Gas Content program is voluntary if gas content units will NOT use IGCC®/IGMA® and/or IGMAC® marks, but is mandatory if IGCC®/IGMA® and/or IGMAC® marks will be used for gas content units. The program is intended to demonstrate a licensee's ability to initially fill to a minimum level and the ability of the construction of the IG unit to retain a minimum gas content level after exposure to the weathering cycle of the test method.

Licensees meeting a tested initial gas content of 90% or greater and a final after weathering gas content of 80% or greater shall be identified in the Certified Products Directory (CPD) with the designation "GCIA" for "Gas Content, Initial and After Weathering". Both initial and after weathering gas content must be compliant in order to be listed as "GCIA". The gas content certification process will be as follows: (Modified 8/2010)

To be listed as complying with gas content certification, initial and after weathering (GCIA) the average gas content level must be 90% or greater initially and 80% or greater after weathering, and each of the tested units shall have a gas concentration of 50% or greater. These levels were selected as levels that can reasonably be reached by insulating glass fabricators on a consistent basis. It takes into consideration a) variations that may occur in the filling process, and b) variations that may occur in the testing process. If a licensee's gas content is consistently greater than these gas content values, the licensee can include this information in the licensee's literature.

It is recognized that actual production units may not necessarily be 90% or greater initial gas content but shall meet the manufacturer's stated initial content values.

Special arrangements need to be made if regulatory compliance is required for gas content other than argon

#### 11.1 IGCC®/IGMA®

- a. The normal minimum of thirteen (13) 14x20 in (~350x500 mm) test units for seal durability, fifteen (15) for multiple air space units, shall be fabricated under auditor witness during normal durability certification fabrication audits. Additionally, 3 units (5 multi air space) will be required for applicable testing under the G.8 guideline (Internal Components). All test units shall be gas filled with argon. All multiple air space units shall have both cavities filled and tested. Per guideline G.19 as applicable, coated glass shall be used and multiple air space units shall have coated glass as the center lite for at least ten (10) test units intended for testing in accordance with ASTM E2188 and have coated glass on one outer lite for at least two (2) (4 multi airspace) test units intended for testing in accordance with ASTM E2189. The test lab shall randomly select ten (10) units for initial gas content testing. Units shall be inspected for any damage, and any damaged units not used. Testing for gas content in between testing cycles, and after weathering shall be performed on the six (6) ASTM E2190 weathering test units. The calculation of results shall be an average.
- b. Units shall be tested for gas content percent by non-destructive spark emission spectrography (SES) in accordance with ASTM E2649 Determining Argon Concentration in Sealed Insulating Glass Units Using Spark Emission Spectroscopy. Up to two (2) test units (14x20 in [~350x500 mm]) may be used to replace any unit broken in shipping or handling.
- c. Laboratories shall report results of testing as "percent initial gas content", "percent of weathering phase", and "percent after weathering gas content" to the nearest whole percent.

11.2 IGMAC® (Added 1/2025)

- a. The normal twenty (20) 350x500 mm (~14x20 in) test units for seal durability shall be fabricated under auditor witness during normal durability certification fabrication audits, to test in accordance with the Can/CGSB 12.8. Additionally, three (3) dual pane, five (5) multiple cavity units will be required for applicable testing under the G.8 (Internal Components) guideline. All test units shall be gas filled with argon. All multiple air space units shall have both cavities filled and tested. Per guideline G.19 as applicable, coated glass shall be used and multiple air space units shall have coated glass as the center lite for the units intended to undergo the weathering cycles. Units intended to undergo the volatile fogging shall have the coated glass on one outer lite for two (2) test units.
- b. The test lab shall randomly select ten (10) units for initial gas content testing. Units shall be inspected for any damage, and any damaged units not used. Testing for gas content after weathering shall be performed on the same ten (10) test units.
- c. Laboratories shall report results of testing as “percent initial gas content” and “percent after weathering gas content” to the nearest tenth of a percent.

**12.0 COMPONENT VALIDATION**

Sealant Fingerprinting - To help understand variability in an IG total unit performance, an optional tool, sealant “Fingerprinting” can provide fabricators with an avenue to better understand test results and material variability. The output of a sealant fingerprint is a graphical representation of the generic make-up of a material that then can be compared to other fingerprints of the fabricator to better understand the material. Fabricators can create their own “vault” for their company’s “pre” and/or “post” weathering testing. The information (Fingerprint) shall be the property of the company requesting the test. Contact IGCC at [igcc@amscert.com](mailto:igcc@amscert.com) for more information or visit the IGCC®/IGMA® website ([www.igcc.org](http://www.igcc.org)). (Adopted 7/12/2018)

**13.0 CERTIFICATION GUIDELINES AND INTERPRETATIONS**

For guidance in labeling and certifying sealed insulating glass units the Certification Committee has adopted the below guidelines.

Any changes within the certified products must be communicated to the administrative office in writing.

Additionally, certain topics that required added explanation and clarification have been presented in a series of Certification Notes as referenced. These Certification Notes are available on the website ([www.igcc.org](http://www.igcc.org)) or by contacting the administrative office at (315) 646-2234.

ID #	Title	Initial Publish Date	Approval Date
CN IG 1009	Certification of Internal Components (IC)	10/28/09	05/08/2019
<del>CN IG 1109</del>	<del>Certification of Capillary Tube, Breather Tube Systems-(Deleted 5/4/22)</del>	<del>10/28/09</del>	<del>10/28/09</del>
CN IG 0310	Certification of Multiple Air Space Units	03/01/10	03/02/11
CN IG 1010	Provisional Certification	10/14/10	09/16/22
CN IG 0211	Certification and Testing of Vacuum Insulating Glass VIG	02/18/11	09/26/22
CN IG 0112	Desiccant Quantity Review of Changes (ACPF)	01/31/12	10/31/12

**ALWAYS**

**13.1** The following situations permit the licensee to **always** certify the sealed insulating glass units with the same certification number.



**13.1.1 GLASS**

A.GL.1

Any change in glass thickness from that tested. (Modified 3/15/2006)

A.GL.2

Any change in glass tint or color from that tested (clear glass is required in test specimens).

A.GL.3

Any change in glass size from that tested (14x20-in or 350x500 mm is required for testing).

A.GL.4

Any change in glass type (i.e., tempered, heat strengthened, laminated or patterned glass) from that tested (annealed glass is normally used in all test specimens).

A.GL.5

Any change in glass shape from that tested (rectangular glass is required in test specimens). This guideline permits the same certification number for triangular, circle head, trapezoidal and other shapes.

A.GL.6

Any change in glass supplier from that tested.

A.GL.7 (Deleted 3/15/2006)

A.GL.8 (Deleted 3/15/2006)

A.GL.9 (Deleted 3/2/2011)

**13.1.2 SPACER**

A.SP.1

Any change in air space dimension from that tested

A.SP.2

Any change in spacer wall thickness from that tested.

A.SP.3

Any change in spacer seam design (i.e., butt seam or lock seam) from that tested.

A.SP.4

Any change in supplier of spacer from that tested, everything remaining the same.

A.SP.5

Corners or connections which are soldered, welded, brazed or bent, but uncut, may be used interchangeably with the same certification number. (Adopted 2/19/1985)

A.SP.6

Corners or connections may be changed from mechanical connections (MC) to bent-uncut corners (BC), using the same certification number utilizing joiners or corner keys of plastic, aluminum, stainless, or galvanized steel. (Modified 5/14/2008)

A.SP.7

Any change in spacer profile from that tested. (Adopted 7/29/2004)

**13.1.3 INTEGRATED SPACER SYSTEMS**

Defined as a pre-fabricated multi-component, multi-material and/or multi-function spacer system. Contact the Administrative Office for the most current list of reviewed integrated spacer systems and their generic class.

A.SS.1

A licensee may certify a Plastic Hybrid Integrated Spacer System (ISS) on the List of Reviewed Integrated Spacer Systems" utilizing the same certification number as the base spacer generic material (single homogeneous component) provided regular test units include the plastic hybrid ISS, all other guidelines applicable. (Adopted 1/31/2012)

A.SS.2

A licensee may use a temporary alternate integrated spacer system on the List of Reviewed integrated spacer systems (most current version) in the same generic class by:

- a. notifying the administrator of the change,
  - b. having test specimens witnessed by the administrator's representative at the next regular audit, and
  - c. sending the test specimens to an approved testing laboratory:
    - a. Licensees participating under the IGCC®/IGMA® program must ship specimens to the laboratory within 28 days from the date of fabrication.
    - b. Licensees participating under the IGMAC® program must ship specimens, along with a copy of the completed facility audit form, to the laboratory within 90 days from the date of fabrication.
- (Added 1/2025)

However, Guideline G.26 shall apply where applicable. The licensee may temporarily use the certification label on a provisional basis commencing with written notification from the administrator and ending when test results are received by the administrator. (Modified 1/31/2012)

**13.1.4 DESICCANT**

A.DE.1

A fabricator may use the same certification number on production units having air space thickness equal to, or greater than the model tested provided the desiccant Adsorption Capacity per Perimeter Foot (ACPF) remains the same (-10%) or is greater. A manufacturer may use the same certification number on production units having an air space thickness smaller than the model tested provided the manufacturer maintains the same or more sides filled with desiccant (Modified 1/31/2012)

A.DE.2

A change in supplier or model of the same generic type of desiccant from that tested will not require a different certification number provided the new material is on the List of Reviewed desiccants and the ACPF is maintained or increased. However, Guideline A.SS.2 shall apply where applicable. (Modified 10/28/2015)

A.DE.3

The use of the same loose fill desiccant manufactured in different particle size ranges will not require a different certification number. (Modified 1/31/2012)

A.DE.4 (Deleted 1/31/2012)

A.DE.5 (Deleted 1/31/2012)

A.DE.6 (Deleted 1/31/2012)

### **13.1.5 SEALANT**

#### A.SE.1

If a fabricator produces IGUs with the same sealant/spacer system, but with different sightline dimensions (i.e., with a narrow and standard sightline dimension), they must certify the system with the smallest sealant/spacer sightline dimension. Verification of smallest sightline shall be confirmed during certification fabrication audits. (Revised 9/26/2018).

#### A.SE.2

A licensee may use a temporary alternate sealant on the list of reviewed sealants (most current version) in the same generic class by:

- a. notifying the administrator of the change,
- b. having test specimens witnessed by the administrator's representative at the next regular audit, and
- c. sending the test specimens to an approved testing laboratory:
  - a. Licensees participating under the IGCC®/IGMA® program must ship specimens to the laboratory within 28 days from the date of fabrication.
  - b. Licensees participating under the IGMAC® program must ship specimens, along with a copy of the completed facility audit form, to the laboratory within 90 days from the date of fabrication. (Added 1/2025)

The licensee may temporarily use the certification label on a provisional basis commencing with written notification from the administrator and ending when test results are received by the administrator. (Modified 6/23/2010)

### **13.1.6 GAS CONTENT**

#### A.GC.1

Any change in gas from that tested providing 1) the same gas filling fabrication process is used; argon is required for each regular testing, and 2) a one-time after weathering gas content test is done for each exotic gas other than argon (acceptable methods of test shall be GC, SES, O2 analyzer, other acceptable to the certification programs).(Revised 2/1/2020)

### **NEVER**

**13.2** The following situations never permit the licensee to certify with the same certification number. They require the use of a different certification number.

### **13.2.1 SPACER**

#### N.SP.1

A change in spacer material, i.e., aluminum to steel or any other material will require a different certification number.

#### N.SP.2

A change in spacer surface finish, i.e., anodized to mill finish or hot dip to electro galvanized will require a different certification number.

#### N.SP.3

A change in corner design from soldered, welded, braised or bent (BC) to mechanical corner (MC) will require a different certification number. (Modified 5/14/2008)

#### N.SP.4

A change in corner key material to another material, except to the same material as the spacer, will require a different certification number. All plastic keys and joiners are considered generically equivalent. This guideline does not apply to A.SP.6. (Modified 5/14/2008)

N.SP.5

If bent, uncut spacer corners or connections (BC) are changed to mechanically fastened spacer corners (MC); a new certification number is required. (Modified 5/14/2008)

### **13.2.2 DESICCANT**

N.DE.1

A change in generic type of desiccant will require a different certification number. For purpose of desiccant guidelines, the generic types of desiccants are 1) LF=Loose Fill desiccant, 2) IB=Imbedded desiccant system, 3) DM=Desiccant Matrix. (Modified 1/31/2012)

### **13.2.3 SEALANT**

N.SE.1

In a single sealant system, a change in generic type of sealant will require a different certification number.

N.SE.2

In a two sealant system, a change in generic type of primary sealant will require a different certification number.

N.SE.3

In a two-sealant system, a change in generic type of secondary sealant will require a different certification number.

N.SE.4 (Deleted 9/26/2018)

N.SE.5 (Deleted 9/26/2018)

## **GENERAL**

### **13.3 CLASS I - UNIT MODIFICATION**

#### **DEFINITIONS**

**Breather Tube** - Tube inserted into the I.G. spacer that is intended to be permanently sealed at some point either prior to final glazing of the unit or by access to the end of the breather tube after glazing. This sealing is generally intended to be done after the unit is at or near its final installation elevation.

**Capillary Tube** - Tube inserted into the I.G. spacer and intended to be left permanently open.

**Cavity Pressure Compensation Systems (CPC)** - Any IG unit component or process which is designed to manage the cavity pressure of an IG unit.

**CPC and How It Is Related to Membrane** - The certification programs observe that organically sealed insulating glass units are not actually hermetically sealed, but rather are composed of sealing systems which demonstrate sufficiently low water and gas transmission rates as to pass the accelerated weathering conditions imposed in testing standard(s). We acknowledge that certain capillary tube designs may also control the passage of water and gases in such a manner as to allow breathing but still demonstrate the ability to pass the test conditions.

TI = Tubes Inserted (TI units intended to be closed at some point after fabrication may be certified (durability and GCIA) if passing results are achieved. TI units intended to be left open, with no additional gas capture, shall not be GCIA certified.)

HR = Holes Resealed (Holes into the sealed airspace, created either in the field or at the factory, that are permanently sealed in the field for the purpose of cavity pressure compensation)

PA = Pressure Adjusted (Units initially made with a positive or negative preset)

RS = Relief System (Bladder or diaphragm)

PF = Post Fabrication (Designs requiring a secondary fabrication process at or near the installed altitude. Example, closing of a valve)

OT = Other (uncategorized)

#### G.0 Cavity Pressure Compensation (CPC) Systems

An I.G. construction incorporating a CPC system will be certified and listed (durability and gas content) as equivalent to a previously program durability certified I.G. model without a CPC system, provided the following applies: (Modified 05/04/2022)

- a) Material and construction of the units are identical, except for the inclusion of the CPC system.
- b) Both sets of I.G. units pass when tested according to ASTM standard(s) durability and gas content (GCIA) if applicable. The units with CPC system need only be tested once, but each type of CPC must be tested and will be listed accordingly (see product key). TI units intended to be closed at some point after fabrication may be certified (durability and GCIA) if passing results are achieved. TI units intended to be left open, with no additional gas capture, shall not be GCIA certified.
- c) The test must be run by an approved lab. Unit installation instruction must be supplied to the lab.
- d) Preparation of test specimens must be witnessed to ensure all fabrication steps of the CPC system process are adhered to. Evidence of an SOP shall be provided. Test results shall be submitted to and reviewed and approved by the administrator.

G.1 (Deleted 05/04/2022)

G.2 (Deleted 05/04/2022)

G.3 (Deleted 05/04/2022)

G.7 (Deleted 1/1/2007)

#### G.8 Internal Components (IC)

Baseline volatile fog testing shall be performed during each regular certification test on units identical to those fabricated for the high humidity and accelerated weathering testing. Initially and at least each 4 years, sets of three (3) double pane, five (5) multiple cavity test specimens shall be constructed under auditor witness for volatile fog internal component performance testing utilizing all the components of an internal components (IC) system, which are used in the ultimate product. Only volatile fog testing shall be required in each of the following categories of internal components. The specific internal component to test in each category shall be 1) worst case product or 2) highest sales volume product, at the fabricator's discretion:

- 1) Bars, grills or muntins (BA)
- 2) Blinds (BL)
- 3) Glass, or other glazing materials (GI)
- 4) Other internal components not in the above categories (i.e., insulating materials, electronics) (OI)

When testing muntins or grills, test samples shall be fabricated dividing the sample into four areas in an off-set pattern. A licensee may use the same certification number for units manufactured with and without internal components (IC) providing regular testing has been accomplished in accordance with the above procedure. (Modified 5/8/2019)

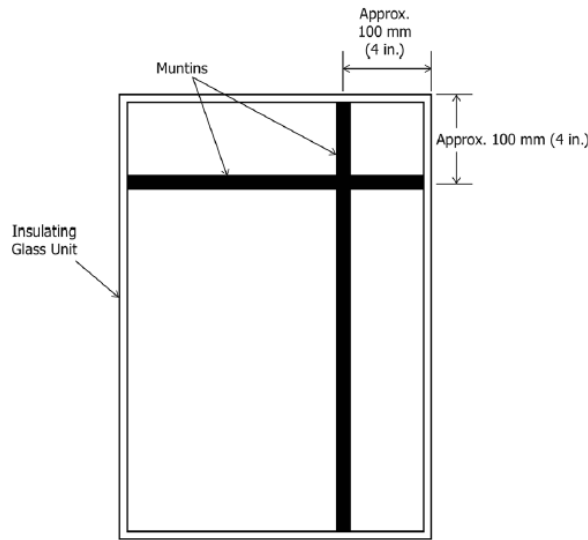


FIG. 1 Schematic Drawing of Insulating Glass Unit with Muntin Bars

G.15 Multi-Cavity

Multiple air space units may be certified with the same IGCC®/IGMA® or IGMAC® number as single air space units, provided that the construction of each space complies with the guidelines for single space units; pressure communication of spaces is permitted, but not required. This guideline shall apply to multiple air space products that use glass or a suspended coated film (SCF) as an airspace barrier. Testing of multiple air space units shall be performed at the time of each required testing. When testing multiple air space units with coated glass, the coated glass shall be on at least one outer lite for the units intended to be tested for volatile fog in accordance with the testing standards. (Modified 6/23/2010)

G.17 (Deleted 1/1/2007)

G.18 (Deleted 1/1/2007)

G.19 Coated Glass

An Insulating glass unit constructed with coated glass with the coating toward the air space (pyrolytic or sputter coated) shall be certified utilizing the same IGCC®/IGMA® or IGMAC® number provided regular test units include one lite of the coated product per test sample. Only the highest volume coated product need be tested. Testing of sputter coated non-edge deleted will cover sputter coated edge deleted, Pyrolytic and uncoated (clear). Testing of sputter coated edge deleted will cover Pyrolytic and uncoated. Testing of Pyrolytic will cover Pyrolytic and uncoated. Testing uncoated (clear) will only cover uncoated (clear). When testing multiple air space units with coated glass, the coated glass shall be on at least one outer lite for the units intended to be tested for volatile fog in accordance with the testing standards. (Modified 6/23/2010)

From	To			
	Clear	Pyrolytic	Sputtered (edge-deleted)	Sputtered (non edge-deleted)
Clear	Y	N	N	N
Pyrolytic	Y	Y	N	N
Sputtered (edge-deleted)	Y	Y	Y	N
Sputtered (non-edge-deleted)	Y	Y	Y	Y

(Table Key: Y- Yes; N – No)

(Chart provided for illustration)

**G.26 Adsorption Capacity per Perimeter Foot (ACPF)**

For all Certified Products and prototypes for Certification testing, the fabricator shall have on file a copy of the **Desiccant supplier’s specification showing the minimum equilibrium water adsorption capacity (weight %) as measured at 25°C (77°F) and 50% Relative Humidity (+/- 5%)**. Additionally, the fabricator shall document the weight of desiccant or desiccant system (grams) in the certified product or prototype. From this data, the fabricator shall document the adsorption capacity per perimeter foot (ACPF) using the following formula: (Modified 1/31/2012)

$$\text{ACPF (grams/ ft.)} = \frac{\text{Weight of Desiccant Product (g)} \times \text{Adsorption Capacity (wt \%)}}{\text{Perimeter (Feet)} \times 100}$$

Note: For all 14x20-in (350x500 mm) test specimens the perimeter is 5.66 feet (1.73 meters)

**G.27 Structural Modification, i.e., Hole for Gas Fill; Electrical Connectors or Conductors**

A sealed insulating glass unit that has been structurally modified, (i.e., hole or holes for gas filling (AP), connectors or conductors that penetrate the seal (primary or secondary) (SP)) shall be tested regularly for certification assembled with standard production procedures including these modifications. (Modified 5/7/2014)

**G.29 IG Integrated Sash Technology**

When testing units using IG Integrated Sash Technology, IG fabricators would have the option of testing integrated IG units in one of two methods:

- 1) glass size shall be 14x20-in (350x500mm) and the sash shall be cut away to fit in a 14x20-inch testing opening, or
- 2) a larger sash which accommodates 14x20-in (350x500mm) glass may be tested. This option would need to be reviewed with the test lab ahead of time to ensure the test chamber can accommodate the larger sash size.

All testing is completed with no glazing beads and all fabrication holes or simulated hole punches in place. If the sash is cut away, this function must be performed by the IG fabricator. (Adopted 5/3/2005)

**G.30 Applied Surface Coatings to an IG Spacer and Spacer Components**

An insulating glass unit utilizing an applied surface coating to an IG spacer and spacer components shall be initially certified under the normal certification testing process. The application of the coating will be documented in the product audit report. A surface coating may be added to or removed from an already certified product utilizing the same certification number by applying guideline G.5. Applied surface coatings would include, but not be limited to paints, coatings and adhesion promoters. Spacer and spacer components with an embedded or etched into the surface color are not subject to this guideline and may be certified with the same certification number. (Modified 3/2/2011)



G.32 GCIA and Capillary and Breather Tubes and Systems

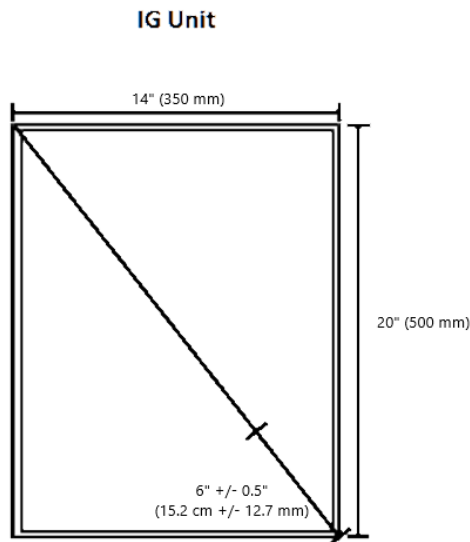
(Refer to guideline(s) G.0, G.1, and G.2) An IG construction incorporating a permanently or temporarily open system or tube, (Capillary, breather or other) may be Gas Content Initial and After Weathering certified (GCIA) with the same certification number provided regular test units include all the components of the system or tubes. Unit installation and/or final sealing instructions must be supplied to the laboratory and performed at the laboratory. (Modified 8/6/2013)

G.34 IG Units with Bent or Curved Glass

Special note should be taken that the ASTM E2190, and the CAN/CGSB 12.8 test method do not provide for testing of Bent or Curved IG units. As such, it is only flat IG units that fall within the Certification Program. This, however, in no way precludes the ultimate use of Bent or Curved IG units. Labeled spacer may be used in IG units, other than flat glass, but in that case, certification does not apply. (Adopted 3/2/2011)

G.37 Point Support Aperture

Point support aperture units may be certified with the same certification number as the base model, non-point support units, provided construction of the units are the same except for the point support aperture and testing of point support units shall be performed initially and in lieu of the base model, non-point support unit, at least once each (4) years. Only one point support aperture shall be present in each test unit and the center of the support shall be located 6-inches +/- 1/2-inch (15.2 cm +/- 12.7 mm) on the unit diagonal. Any components fixed to the IG by the IG fabricator and associated with the aperture shall be included in the test units. Changes in the shape or geometry of the through hole will not require retesting, but changes in the generic material of the seal will require retesting. (Adopted 5/4/2017)



**13.4 CLASS II - SPECIMEN**

G.6 Specimens – Quantity

No more than 4 additional test units shall be labeled by the auditor for testing When gas content testing (GCIA), it is recommended to ship some or all of the additional auditor “labeled” units to the testing laboratory. (Modified 9/26/2018)

G.9 Specimens - Production (Deleted 1/1/2007)

G.10 Specimens - Production

If a licensee is not producing units at the time of an audit a labeled unit from inventory shall be inspected, provided that the date code is within the audit period.

G.11 Specimens - Production

A portion of the audit will be used to determine whether a licensee is using the certification label on unauthorized units.

G.12 Specimens - Shipment

Units fabricated for test during an audit must be shipped directly to the approved test facility within the allotted time frame. If they are not, the audit may be considered invalid and another audit must take place. But for normal in plant quality inspection processes performed by the manufacturer, there shall be no 'pre-testing' of any test sample being forwarded to the approved test facility. In situations where fabricated test units are deemed unacceptable for test by the licensee as a result of a normal plant quality inspection process, the licensee shall be allowed to re-fabricate test samples only once. This re-fabrication must occur within 45 days of the original fabrication date. All costs related to this guideline are to be borne by the licensee. (Modified 5/14/2008)

G.14 (Deleted 1/2025)

G.31 Suspension of Testing

There may be situations where the program participant wishes to suspend testing (gas or durability) before completion. For prototype fabrications this shall be at the discretion of the program participant and has no effect on the certification listing. For certified unit testing, with consideration for guideline G.12, any suspension of the test, gas or durability, shall be deemed as a failure of that portion of the test. G.12 would not be applicable once testing has started. (Adopted 5/14/2008)

**13.5 CLASS III - EQUIVALENCY**

G.5 Gray Area

Situations that are not included in the "Always" or "Never" categories listed above, fall into the gray area. When there is a change and the licensee desires to use the same certification number, the licensee shall immediately notify the administrator with all details of the change and also satisfy either 1,2, or 3 below:

- 1) Establish equivalency by passing the same level of ASTM test as certified to by having specimens tested at an independent testing laboratory. Witness of test sample fabrication is not required but specimens must be fabricated and submitted within two weeks and sent to the laboratory within 4 weeks after notification of the administrator. During the test period, the licensee may temporarily use the certification label on an interim basis.
- 2) With approval by the administrator, establish equivalency by passing Rapid Assessment Chamber (RAC) testing. Witness of test sample fabrication is not required. Testing shall be at an approved independent testing laboratory. (RAC only available to IGCC® licensees)
- 3) Demonstrate the equivalency of the change to the satisfaction of the Certification Committee or a subcommittee. (Specimens not required.)

G.21 Transfer

If a licensee manufactures the same model using the same technology at a different location, an IGCC®/IGMA® number with a temporary status will be issued provided that testing (durability and/or gas content) of the model is initiated at the next scheduled testing audit. (Modified 5/4/2022)

- This guideline may not be applied to products for which certification has been previously removed due to test failure.
- This guideline may be used when a plant relocates (physical relocation) under existing Ownership (IGCC shall be notified prior to plant's physical relocation).
- This guideline may be used if valid compliant test report(s) are within 12 months (one year) of the report date.

G.23 Equivalency

A licensee needs to establish equivalency for a model only once.

G.24 Vision Glass Areas

Special note should be taken that the test methods only provides testing for "Vision glass areas." As such, it is only these types of units that fall within the Certification Programs. This, however, in no way precludes the ultimate use of these units in other applications, e.g., Spandrel units. (Adopted 8/28/1986)

Labeled spacer may be used in IG units, other than vision glass, but in that case, certification does not apply. (Adopted 4/16/1991)

G.28 Certifying Additional Constructions

A current licensee with currently certified products may certify additional constructions or replace a certified construction at the same plant location by having specimens tested at an approved testing laboratory. These samples need not be witnessed by an auditor. Upon completion of passing test results the construction shall be eligible for certification. Witnessed testing must occur at the next regular audit. (Adopted 7/28/1999)

G.33 Duplicate Certification

There may be situations where the program participant wishes to certify separately a model variation for which the certification programs would allow equivalency, both variations under a single certification number. Some examples of this duplicate certification may be dual pane and multiple air space, various moisture vapor transmission path lengths (sightlines), variations in coated glass. This duplicate certification shall be allowed, and each variation given a separate certification number. Each certification number will be treated as its own certified model and be subject to normal product fees, testing and auditing requirements.

G.35 Multiple Sources of Same Generic Category

If a licensee regularly uses multiple sources of supply within the same generic category each source of supply (A and B) shall be tested on a rotational basis. If one source of supply (A) is tested and fails to comply, the same source of supply (A) must be tested to maintain certification for that source of supply. If certification for (A) is no longer required by the licensee the retest due to failure must still occur with (B) or a new alternate source of supply (C). (Modified 8/6/2013)

G.36 Sale of Plant and Transfer to New Ownership

When a fabrication facility (plant) with a currently certified IGCC®/IGMA® or IGMAC® product, or pending prototype(s), is sold to new owners, the certification may be transferred to the new owners. The following steps shall be followed for the new owners and plant to maintain certification: (Adopted 5/4/2017)

- 1) Notify the Administrative Office, in writing, when the sale is to take place or when sale is finalized. Notification shall include a description of any interruptions in production or changes that may affect the status of certification, including product marking.
- 2) A new license agreement shall be signed and returned to Administrative Office, if the new owner is a new licensee.
- 3) The new owner shall be responsible for any outstanding certification and testing fees unpaid.
- 4) While it is encouraged for the new owners to utilize new certification numbers, retention of the same certification number(s) from the prior owner shall be allowed. Regardless of prior testing history, testing will need to be completed during the next regular facility visit.
- 5) The above is only applicable if a majority of plant personnel and fabrication equipment is maintained. New prototype testing may be necessary if significant changes are made.

G.38 Inactive Certification

After initial certification, a licensee, with multiple certified products, may place a different (non-equivalent) certified product into an "inactive status". During inactive status, directory listing would still occur but with an "IN" designation. Regular retesting would not be required. Returning to a "Certified" status and labelling of production units would not be allowed without notification of the Administrative office. When returned to "Certified" status, an audit and witness fabrication of retest specimens must occur within 45 days of reactivation, unless current test reports are within one year of the report date. A product may only remain in "IN" for up to 5 years. (Modified 9/26/2018)

**13.6 CLASS IV - APPEALS, REVIEW AND DE-CERTIFICATION**

**G.13 Monetary**

The administrator shall remove authorization to use the permanent certification label from all of any licensee's products for failure to pay monies due within 60 days of invoice date (reference License Agreement A. 13 and B.6).

**G.16 Failure to Comply**

In cases where a routine test fails to comply with the specifications: (Modified 2/4/2015)

- 1) Upon notification of failure of routine test samples to reach the certified level, the licensee will be officially notified. Within 15 days the licensee must respond stating a retest fabrication is requested by paying all required administrative and test fees. If there is no response within 15 days, authorization to use the permanent certification label will be removed.  
If the retest option is accepted:
  - a) Request for retest option is granted only upon receipt in full of any administrative and retest fees within 15 days of date of mailing of the notification of failure.
  - b) The Administrator's representative will perform an audit and witness fabrication of retest specimens within 60 days of the date of notification of failure.
  - c) Licensee must ship and deliver retest specimens to the testing laboratory within the allotted timeframe from fabrication date.
- 2) There is to be no change in certification status during the retest period. All routine audits will continue. Sample fabrication for subsequent routine testing of the questionable model will be suspended pending the outcome of the retest.
- 3) If the retest units comply, they shall be considered as the next routine test.
- 4) If the retest units fail, the licensee is issued a cease-and-desist order on use of the label immediately.
- 5) The licensee may choose to accept certification at any level passed by the retest, although it might be a lower level than originally desired.

**G.20 Authorization to use the Permanent Certification Label**

Authorization to use the permanent certification label will be removed if a routine audit discloses that a licensee is labeling units containing the same unauthorized construction for the second time.

**G.22 Clarification of Due Process Appeal Process**

Clarification of due process appeal process under License Agreement, Paragraph A.11:

A Licensee's appeal from a final adverse decision by the Administrator, under License Agreement Paragraph A.11, shall in the first instance be to the Certification Appeals Subcommittee of the Certification Committee, which acts as an executive committee for the Certification Committee in order to provide a prompt hearing for the Licensee and to act on the Licensee's appeal as quickly as possible. A decision by the Certification Appeals Subcommittee favorable to the Licensee shall be a final decision. A decision by the Certification Appeals Subcommittee adverse to the Licensee may be appealed to the full Certification Committee for a due process review and hearing. Such an appeal to the Certification Committee must be made in writing within 30 days of an adverse decision by the Certification Appeals Subcommittee and this appeal will be heard at the next meeting of the Certification Committee. Pending a hearing by the Certification Committee on such an appeal, the Licensee may maintain certification for the product at issue.

**Committee rule to clarify guideline G.22 as adopted by the Certification Committee at minute 10.31.12.10**

The Chairman of the Certification Committee may call for a special meeting of the Committee (with notice provided in the same way as for a special meeting of the Board of Governors under

the Bylaws), and the Committee may conduct a special meeting (at the physical location identified in the notice or by use of conference telephone or other communication equipment by means of which all persons participating in the meeting can communicate with each other), with such special meeting to be at a date and time other than the next regularly scheduled meeting of the Committee, and at which special meeting any proper business of the Committee, including business under Procedural Guideline G.22, may be conducted. (Modified 10/31/2012)

**SPECIFICATIONS USED FOR SEALED INSULATING GLASS**

**IGCC®/IGMA® Program:**

**ASTM E2190**

**ASTM E2188**

**ASTM E2189**

**ASTM E2649**

**ASTM E546**

Specification may be obtained by contacting:

ASTM:

100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
Telephone: (610) 832-9585  
Web Address: [www.astm.org](http://www.astm.org)

**IGMAC® Program:**

**CAN/CGSB 12.8**

Specification may be obtained by contacting:

Standards Council of Canada (SCC):

55 Metcalfe Street, Suite 600  
Ottawa, ON K1P 6L5  
Canada  
Telephone: (613) 238-3222  
Web Address: [www.scc.ca](http://www.scc.ca)