



• What the 2010 NFRC
Insulating Glass Certification
Requirement Means to
Window Fabricators



What New NFRC Requirement?



- The US DOE decided in 2008 to require certification of the insulating glass contained in **Energy Star**[®] qualified windows.
- In August of 2008 the NFRC accepted the task of implementing the requirement by 7/1/10.
- In October of 2008, the NFRC formalizes the requirement, announcing it with the release NFRC PCP-2008 document.



The NFRC's IG Certification Requirement



1.1.2 Role of Licensee

“Under the Certification Program, an NFRC fenestration licensee is responsible for ... having all IGU used in Certified Products certified in NFRC approved IG Certification Program.”



NFRC Recognized IG Certification Agencies

NFRC IGC Directory

IG Certification Program Sponsor	Program	Contact	Phone Number
Associated Labs, Inc.	ALI	Brad Schultz	214-565-0593
Insulating Glass Certification Council	IGCC / IGMA	John Kent	315-646-2234
Insulating Glass Manufacturers Alliance	IGMAC	Margaret Webb	613-233-1510
Keystone Certifications, Inc.	KCI	Marla Falke	717-932-8500
National Accreditation & Management Institute, Inc.	NAMI	Sharon Durand	804-684-5124



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What Is IG Certification



- Independent “third party” quality control program focused on insulating glass production.
- Predicated on the manufacturer’s IG passing tests to ASTM E2190, *“Standard Specification for Insulating Glass Unit Performance and Evaluation”* AND NFRC 706 gas fill content requirements.
- Requires IG manufacturers develop and implement an IG-specific documented quality management system and record keeping.



The E2190 And Gas-Fill Testing

- Certification of the seal durability performance of the insulating glass.
- Requires the fabrication of test specimen witnessed by inspection agency
- Twice-annual certification inspections
- ASTM E2190 and Gas-Fill retesting every 2 years
- IG Fabricator must demonstrate production unit 90% initial gas fill, 80% after ASTM E2190 test.



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The ASTM E2190 And Gas-Fill Testing

Tag, You're
It!

Scott Swaltek of ATI to provide a
detailed IG testing presentation!



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As you can see,
only IG of the
highest quality
will pass this
stringent testing!

*How do we get
there?*

QUALITY CONTROL





Suppliers Stand With IG Fabricators

- Spacer system suppliers have a “dog in the fight” and are eager to evaluate operations and share their expertise.
- Fabrication equipment manufacturers provide “best practice” recommendations for use and maintenance.



QC Starts With Comprehensive Review

- Facilities & Resources
- Fabrication Equipment
- Practices & Processes



Facilities & Resources

- Maximize IG fabrication environment isolation from airborne contamination.
 - Dust & dirt
 - Aerosols
 - Oil in compressed air
- **Best Practice** – environmentally controlled IG “clean room”



Facilities & Resources

- Chemical analysis & treatment of the water supplied to glass washer.
- Water ph and mineral composition varies by locale and source.
- Determine acceptable composition from washer supplier, seek professional help for treatment options.



Fabrication Equipment

- Seek equipment supplier recommendations
- Establish & document maintenance schedules
- Assign responsibilities
- Establish maintenance record keeping and oversight
- Be Vigilant!



Maintenance Considerations:

- Water & air filter changes
- Water softener function & salt level
- Water temperature is maintained
- Glass washer brush replacements
- Heater bulb replacements



Maintenance Considerations:

- Rollers are free of debris and settings are consistent at full width
- Gas fill equipment calibration & fittings inspection
- Glass cutting wheel replacement schedule



Practices & Processes

- Study the quality management documentation provided by spacer system suppliers
- Consider how to consistently implement the spacer system supplier recommendations in daily operations
- Assign responsibilities
- Seek help from certification agency to put it all in writing (Quality Manual)



Consider:

- Establish and document IG inspection pass/fail criteria
- Employ photos to illustrate go / no-go conditions
- Get employees involved with improving IG quality, seek input and act to implement good ideas



Also Consider:

- Proper unused spacer storage to prevent moisture absorption (weekends? overnite?)
- ALWAYS evaluate moisture absorbing capacity of previously opened spacer material before use
- Be prepared to discard deficient spacer material!





Keystone thanks the NWDA !

Keystone Certifications

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