

The deadline for comments is November 16, 2012 end of business day. All comments and responses will be made available either directly to commenters or on the IGMAC Certification Program web page, which is accessible by individual login. To obtain a login and password, please contact the IGMA office.

A copy of the response form is attached to this notification.

Yours truly,

Margaret Webb, CHRP
IGMA Executive Director



To: IGMAC Program Participants and IG Component Suppliers
Issued: October 16, 2012
From: Margaret Webb, IGMA Executive Director
Reference: **Notice for Review & Comment – Changes to Desiccant / Desiccated Matrix**

The IGMAC Certification Program was developed as a service to insulating glass manufacturers fabricating products for the Canadian market. All manufacturers of insulating glass are invited to participate in the IGMAC Certification Program.

In February 2010, IGMA issued a bulletin for review and comment on Equivalencies and Waivers. One of the issues raised during the comment period was equivalency and waivers on desiccant and, specifically, embedded desiccant in integrated spacer systems.

Under the current program guidelines, manufacturers may apply for a waiver of retest for desiccant if the change is within the same generic category and the number of sides filled remains the same as what was tested. This process does not allow for changes in the adsorption capacity of the desiccant. In the matter of desiccated matrix, there was no method to determine equivalency as equivalency and waivers for embedded desiccant was based on the equivalencies and waivers for integrated spacer systems.

The IGMAC Certification Program has in place a policy of granting waivers of retest for the substitution of products that have been deemed equivalent by the IGMA Technical Policy Committee. This bulletin outlines a new procedure to set a baseline for each manufacturer's use of desiccant and also sets a protocol to determine a baseline for embedded desiccant for integrated spacer systems.

Component equivalency is granted based on two main criteria:

1. The new component must have the **same material properties** as the generic category components of the previously approved material. The component supplier of the new component provides the material properties sheet and any testing results. Material equivalencies are determined through chemical and technical review.
2. The new component has a history of passing the quality control and testing requirements of the IGMAC Certification Program. Currently at least one product must have successfully met the IGMAC Certification Program testing and quality control requirements in order for a specific component to qualify for waiver.

Both of these conditions must have been met in order for a component change in the same generic category to be considered eligible for a waiver.

Proposed Changes to Quality Program – Desiccant / Desiccated Matrix quality control requirements.

Based on the comments received regarding equivalencies and waivers, the IGMA Certification and Education Committee established four new task groups to review the qualification criteria and conditions for waiver:



1. Sealants – chaired by Bill Arndell, Bostik
2. Desiccant / Desiccated Matrix – chaired by John Greenzweig, H.B. Fuller
3. Spacer and Integrated Spacer Systems - chaired by Tracy Rogers, Quanex
4. Internal Components

Prior guidelines did not appropriately address products with embedded desiccant (desiccated matrix) nor fully address desiccant quantity changes for various spacer widths and is not reflective of the reality of today's market with respect to blended desiccants.

It is proposed that desiccant quantity for certification will now be based on an ACPF number = Adsorption Capacity per Perimeter Foot. While your desiccant supplier can assist you in establishing this number, which will be documented in your certification paperwork, we encourage you to establish a procedure to monitor this value.

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

Weight of Desiccant(g) = the desiccant shall actually be weighed from a test unit (for foam spacer and like product weigh a 5.66 ft spacer).

Adsorption Capacity (wt%) = This shall be obtained from the desiccant supplier, from either a specification sheet or certificate of analysis.

Perimeter (feet) = For all 14 x 20 inch test specimens the perimeter is 5.66 feet (use 5.66 feet for consistency even though actual length may be somewhat less due to offset for sealant depth).

In preparation you will need 1) your desiccant supplier's specification showing the minimum equilibrium water adsorption capacity (wt. %) specification at 50% R.H. and 25° C. and 2) an appropriate scale to weigh desiccant and/or spacer. Below are suggestions for adequate scales.

- Denver Instrument MAXX Top loading Balance Model MXX-412; Capacity 412grams; Readability 0.01grams; price: <\$500
- OHAUS Scout Top loading Balance Model SP402; Capacity 400grams; Readability 0.01grams; price: < \$500
- For those testing tempered safety glass, the scale used to weigh tempered glass particles may likely work.

All desiccant suppliers are familiar with this change and will be able to assist you.

Excerpt from the IGMAC Certification Program manual, Version 17 (proposed changes highlighted)

Section G.0 COMPONENT CODES

Section G.4 IGMA does not certify or approve components used in the manufacture of insulating glass units.

- G.6 **A change of unit design which would change any of the components listed on the “Application for Participation in the Certification Program” will be considered new generic type and will be subject to retesting unless a “Request for Waiver of Retest” is approved. Refer to Appendix A, Desiccant and Sealant Chart for equivalencies.**
- G.7 (previously identified as G.6) As a general guide, any of the following may be changed without requiring a retest or a waiver approval:
- (a) **Glass** - thickness, size, tint, type, shape or supplier (**Note:** It is recommended that glass supplier's recommendations be followed when insulating glass units utilize coated glass products);
 - (a.2) **Assembly** – Certified sealed triple glazing changed to sealed double glazing.
 - (b) **Spacer** - width, height, wall thickness or supplier, the addition of an air space muntin frame;
 - (c) **Desiccant** - bead size, blend ratio (if the quantity of active ingredient(s) is increased), ACPF number is the same, supplier, addition or deletion of a breather tube (intended to be sealed prior to installation);
 - (d) **Sealant** - colour, increased MVT path, supplier;
 - (e) **Connector** - changes of components within generic Connector.
 - (f) **Coatings** - Non-edge deleted sputtered (soft coat) coatings meeting the Main Criteria 1 and 2. Pyrolytic coatings.
 - (f.2) **Low E Coatings** – Edge deleted sputtered (soft coat) coatings to any other edge-deleted sputtered coating, Pyrolytic (hard coat) or plain glass;
Non-edge deleted sputtered (soft coat) coatings meeting the Main Criteria 1 and 2, and only when recommended for such use by the coating manufacturer to any other edge-deleted sputtered coating, Pyrolytic (hard coat) coatings, or clear glass;
Pyrolytic (hard coat) coatings to any other Pyrolytic coating or clear glass.
- G.8 (previously identified as G.7) As a general guide, the Administrator should be notified by means of a "Request for Waiver of Retest" for interim approval. Items not covered by Items G.6 and G.7 shall be reviewed by the IGMA Technical Policy Committee. Final approval shall be granted by the IGMA Technical Policy Committee at its next scheduled meeting.
- G.9 (previously identified as G.8) As a general guide, none of the following may be changed without a retest:
- (a) **Glass** - construction of triple glazed units if tested for double glazed;
 - (b) **Spacer** - material or finish (i.e. anodized/galvanized/painted), Generic Type;
 - (c) **Desiccant** - Generic Type, blend ratio (if the quantity of active ingredient(s) is decreased), change in ACPF number.
 - (d) **Sealant** - decreased MVT path, change from a single sealant system to a dual sealant system or vice versa, Generic Type;



- (e) **Connector** - Generic Type.
- (f) **Low E** – Clear (non-coated) to Pyrolytic (hard) low E, sputtered edge-deleted or non-edge deleted low E coating to non-edge deleted sputtered low E coating. Pyrolytic coating to sputtered coating (both edge and non-edge deleted).

Manufacturers are advised that before switching from the product supplied from one component manufacturer to another one, even those that may be considered equivalent and carry the same component code, the form “Request for Waiver of Retest” must be submitted to the IGMA office for review and approval. The request will be reviewed by the Program Administrator and in some cases by the IGMA Technical Policy Committee. The manufacturer will be advised as to whether the waiver has been granted or declined. This is an existing policy of the IGMAC Certification Program.

If the waiver has been granted, then and only then may the manufacturer switch from one component supplier to another for a component in the same generic category. If a change has been identified on the audit report and no waiver has been filed with the IGMA office, the product line may be suspended pending submittal of the appropriate form and decision.

It is the manufacturer's responsibility to advise the IGMA office of any changes in components in advance of implementing a change and only a manufacturer can apply for a waiver.

Draft - For Review