



# GLAZING NOTES



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## Glad to be Back and Catching up

Welcome to the latest edition of this newsletter for glazing contractors!

It has been a while since the last one as we moved from South Florida to Fernandina Beach in the Fall, plus with the office move and a few projects . . . . time got away from us, but we are back. Let's try to catch you up on some of the important developments in several key areas.

The 2010 Florida Building Code took effect on March 15th as scheduled,

and there are several changes which directly impact the glazing requirements. Among these are changes in the fire rated glazing requirements under Chapter 7, Section 715; changes in the wind speed maps; changes imposed by the update of the Energy Code; change in labeling of glass under Chapter 24. Let's give a brief summary of each of these for your general information.

The ALL affect you now!

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#### Special points of interest:

- Code effects can be beneficial
- Study how the Code expands your opportunities
- Can you educate the designer and GC's in how you can offer more

## Fire Rated Glazing Changes

Under Chapter 7, Section 715, we have an updated scheme for labeling which makes it clearer and simpler for the manufacturers, inspectors and glazier to see if the glazing as well as framing meets the requirements under the Code. The chart can be found in the Code and we will be posting a sample on the website for reference. In addition there are clarifications on what is allowed as far as products (fire protective versus fire resistive) under different applications, and we are going to post a very good updated set of tables on our website on this which comes from the Code supplements.

In addition the confusion of when temperature rise is required has been settled with Section 715.4.5 which states that any assembly over ¾ hour rating (45 minutes) must meet ASTM E119 or UL 263. This requires that the glazing must be fire resistive and that the framing and other operable components also meet temperature rise requirements. This clearly separates what type of products may be used on one hour rated wall systems and eliminates the use of conventional HM fixed framing in such assemblies. HM may still be used on 20 and 45 minute rated applications allowed in one hour wall construction which are allowed in some occupancy types,

but if a one hour or higher rating is a requirement then those systems may not be used and would be in violation of the Code as would use of ceramic type glazing products.

The use of HM doors with frames without sidelights or transoms would still be allowed as long as the door is tested under NFPA 252, listed and labeled.

There are nuances on this, and education of the inspectors, designers and others will be among the challenges as in any Code update cycle. If you have questions, you are welcome to contact us with them and any specifics on requirements you may have.

## ***How is the 2010 Florida Building Code affecting you today?***

### **Changes in Wind Speed Maps**

The maps are updates taking into account the new ASCE 7 update, and this uses three sets of maps (A, B and C) which apply to different occupancies. A and B affect commercial construction categories, while C is most applicable to residential. You need to review each and the occupancy groups but the biggest change is on duration of wind gust, change in definition of where wind debris zones are applicable, and the clearer application of critical use design criteria for wind speed and debris impact.

In some cases small changes are incurred, while in others it greatly expands the debris impact (HVHZ) designations as well as wind speed for design pressures. The State of Florida has been holding sessions on some of these effects over the past few months, and there are several good sources on how this will affect you overall. One key item to consider and remember is that the design professional (architect of record) is the party responsible for the review of what is applicable per Code, so they must supply the proper information on the construction documents.

### **Energy Code Effects**

This should not be a big surprise as the trend towards more efficient systems and glazing has been on the move for some time. The “shock” to some has been as to how far in the State this is applicable, and as it is enforced we will see major changes in the use of higher performance systems including coated glazing options. As the Code requires natural daylight and natural ventilation, balancing this will the conditioning of the building will lead to pressures from the mechanical side as well. On the commercial side it will have immediate impact, but residential will not be too far behind as the day of monolithic glazing will fade in most areas, and you will see additional higher end residential products being introduced.

### **Did you hear about Labeling under Chapter 24**

One small surprise which came into effect was the requirement that all fabricated glass be labeled. This includes cut float glass as well as tempered and fire rated, so if you install a piece of ¼” clear float glass in a frame not requiring safety glazing this also must be labeled to show product and related information. Some may consider it strange but it does make sense from several aspects for an inspector and user in clearly being able to identify what is being used where. There are exceptions, common sense ones, so review the update and make sure you are in compliance. We will post that section on the website for your reference.

## An Update on Vetrotech Saint-Gobain North America

In the past few months several interesting changes in products and systems have occurred with Vetrotech Saint-Gobain (VSGNA), along with the introduction of the new updated product binder.

The new binder not only contains updated component information on the glazing but also has fuller information and details on the VDS Lite, VDS, VDS Curtain Wall and Contraflam Structure systems. We are going to post some summaries on the website in the next couple of weeks for reference, but let me give some comments that will be useful for you to have for your current projects and bidding activity.

On the glazing components, the Keralite FR-L laminated ceramic has been improved to the point the color is lighter than in the past and very similar to the TGP Firelite Plus, which goes well with the lower costing it has been enjoying.

The Keralite FR-Ultra has upgraded UL listing to include the temperature rise applications, and within the 3/4" thickness unit (7/8" on very small door lights) you have a product which covers the range from 45 to 90 minutes at one very competitive cost, while giving you fire, smoke, hose stream and temperature rise conformance per Code requirements. Like in all products there are some sizing limitations, but with a typical savings of some \$30 per square foot over competitor's laminated ceramics and the thinner thickness on 90 minute applications, this almost clear product has a unique combination that fills gaps and has no equal on the market today.

In addition VSGNA has expanded its offering of hurricane impact glazing components in both the Contraflam, Keralite FR-Ultra and Swissflam lines with available ratings from 45 to 90 minutes. The glazing is UL listed and can be used with a variety of low-e laminated make-ups, allowing it to be installed into rated framing. For further information contact us.

On systems, the VDS Lite has a very competitive spot

against HM framing and doors as it covers the range from 20 to 60 minutes in non-temperature rise applications, offers a flush glazed look with no exposed fasteners, plus factory painted finish with a number of color options. Add the standard full glass panel doors, ad popular hardware choices and you have the opportunity to sell a complete package versus glass only for framing by others. It also offers the option to accommodate most rated doors by others so rated wood panel doors can be incorporated into the door frames.

The VDS Lite then transitions to the VDS systems for temperature rise storefront style looks with ratings up to 2 hours with complimentary full glass panel doors, or if you need to bypass the slabs for a rated glass wall application, the VDS Curtain Wall (VDS CW) offers you systems also up to 2 hours. Like the VFDS Lite, these other systems are available factory finished in standard urethane or powder coated in a variety of available colors.

The VDS and VDS CW are typically glazed with the Contraflam laminated intumescent with a variety of options including low-iron crystal glass, low-e, pattern and specialty (these include mirror pane, bullet resistant and other).

Want something like a glass wall, well the Contraflam Structure is available in one and two hour rated system with large panels sizes with daylight heights up to 9' 8" and unlimited width runs. Tested as a non-load bearing wall system under ASTM E119, this system gives you a number of options in aesthetics while being cost effective.

Remember that with the change in Code, all fixed framing over 3/4 hour rated MUST be temperature rise systems which excludes conventional HM framing, opening more opportunities to expand your glazing package.

For more information, costing or questions, just give us a call.

## ***Aluflam North America***

### **A true aluminum fire rated system - - what's new**

In the past few months Aluflam has been seeing more activity on requests and projects, and they are also working on their ninety minute door units to go with their two hour Curtain Wall system. The project is well along and scheduled for testing in the next few weeks so we should have an update for you in the next edition or the newsletter or earlier.

As you may know, Aluflam is the only true aluminum fire rated framing and door system on the market with rating of one hour on their storefront style fixed framing, and one and two hour listings for the fixed Curtain Wall systems along with a 20 to 60 minute aluminum door system, all with UL listings and labeling.

Other manufactures such as TGP, SAFTI First and VSGNA use aluminum cladding to their steel or composite system for temperature rise applications, which makes them a bit more expensive in costing as well as installation labor.

Aluflam purchases all of its fire rated glass components from VSGNA which does have a number of options available including low-iron, decorative, exterior IGU's with -e, and others. This allows the required products and components to be shipped in a coordinated manner to the customer, and arrive in the same time frame. As products are manufactured in the USA, no extended lead times are involved.

When sending an inquiry to Aluflam you would supply the typical information including elevations, sizing, quantities, specification data (color, hardware and related information), and you will typically have a quote back in one to two working days. This will include your framing, doors, hardware and all glazing, so you have a one-stop source for a true aluminum fire rated system!

Again, with the Code changes, another opportunity to expand on your scope of work.

## **Resources**

Can we help in your knowledge and education?

Over the last few months we have done a number of sessions for designers and trade groups on Code changes and other topics, and have received suggestions on offering training for glazing firms on select topics. We are working on developing a series of sessions, some which would be in document form, others live webinars, and several live at conferences or meetings, on the subject of fire rated glazing to better prepare the glazier for what is required, types of products available and where to employ them.

The first being offered, in cooperation with Vetrotech Saint-Gobain, will be a webinar on changes under the 2010 Florida Building Code at which changes are discussed, what it means on the changes, what generic products may be used and where. This will be at no cost, with registration required, and a formal invitation will be sent out in the next couple of weeks to those that are subscribers. It will be live so you will have a chance to ask specific questions and also invite others in your firm or colleagues to attend. Be on the lookout for this invitation, and we will also post information on our website when the date(s) are confirmed.

## Calendar

### JULY

4th Office closed for Holiday

### SEPTEMBER

3rd Office closed for Labor Day Holiday

11th – 14th Construct 2012 – Phoenix, AZ

12th - 14th Glass Build - Las Vegas, NV

### NOVEMBER

22nd and 23rd Office closed for Thanksgiving Holiday  
(Aluflam and VSGNA also closed)

### DECEMBER

21st – 31st Office closed for Xmas Holiday  
(expect Aluflam and VSGNA to be closed also on these dates)

### JANUARY

1st Office closed for New Year's Holiday



Interior one hour butt-glazed system utilizing Aluflam framing system. Glazing is Contraflam Structure 60 by VSGNA.

Aluflam provides complete systems (framing and glass) to glazing firms.

## Questions Received

**Q: *When is the date which enforcement begins under the new Code edition?***

**R:** The Code's effective date was extended to March 15, 2012, so this is the date that enforcement begins. Now under the Administrative Rules, the permit application date is what controls which Code edition controls. Anything you have been bidding the last few months would be under the new Code edition.

**Q: *Since the Code section you mention requires that anything over 45 minute rating (fixed frames) must meet temperature rise, does this eliminate HM from being used?***

**R:** You must comply with the standard so a tested assembly with a listing and label showing compliance must be supplied, and as the typical HM design on fixed framing does not meet the performance requirements, it may not be used in applications requiring a 60 minute rating or more. Here the glazing contractor can supply a number of options including true aluminum fire rated systems, rated steel and stainless steel systems, as well as butt-glazed designs. As costs have come down, the cost differential is not that great, and you will see more moderation in pricing as this expands the volume.

**Q: *Does the Code edition now change the use of ceramic glazing as I just had a bit of a discussion with an inspector on some view panels in doors which he was not approving.***

**R:** The clarification under section 715 that defined the temperature rise requirement (testing under ASTM E-119 or UL 263) also limits when and where you can use ceramics as far as door lights as now you are almost always using temperature rise doors when the required rating is 60 minutes and above. Ceramics, in such cases, are limited to 100 square inches daylight area so if the view panel is larger, then an intumescent must be used. There are a number of product options so just ask and make sure that a proper product is quoted. We do have some vendors which are not up to date as what our Code edition requires, so double check.

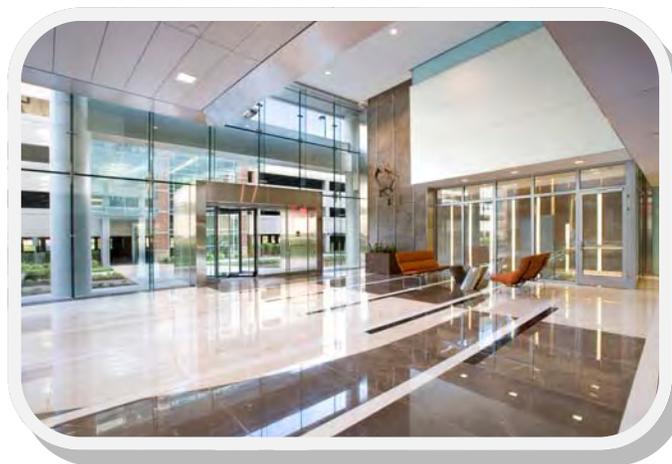
*I want to thank all who submitted questions, and I do try to place the most interesting and timely ones in this section, If you have a question, send them in with as much details as you have, and I will answer them, and select the most topical ones for future inclusion in an issue.*

*One of the trends we may be addressing in our next edition deals with installation related requirements as well as hardware limitations and options.*

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Application of open concept meeting Code with fire rated curtain wall at exterior and interior system at vestibule.

Materials by Vetrotech Saint-Gobain North America

**We have additional information on  
our website for your reference - -**

[www.rjlassoc.com](http://www.rjlassoc.com)

**Education and information to assist commercial glaziers, designers and code officials**

## Boilerplate

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Are you still chugging along?