



GLAZING NOTES



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What is New

Welcome to the January edition of this newsletter for glazing contractors, a few weeks behind our normal mailing schedule!

Our webinar schedule has slid due to some additional events added to our schedule, so we are looking to schedule these for late April and May. In addition, we will have duplicate session on the same topic, but we have two topics we will address on the first go around.

Information on this will be in the April edition of the newsletter as well as being sent as a separate mailing with the invitation, scheduled out in late March.

That being said, do you have questions as to how the changes in the Code affect you? What new opportunities does this offer? What are your responsibilities? What does it mean to designers? How are they being enforced? What is on the horizon as far as additional changes?

The webinar sessions will be at no cost, with registration required, and a link to register will be supplied for the scheduled sessions. 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. All you will

need is your computer with Internet connection and a telephone line so you can ask questions (the access number will be toll free).

Do you have questions on what the hose stream is and why it is so different ? Have you had a lurking question as to what is the big deal between “fire protective” products such as ceramic glazing and “fire resistive” such as laminated intumescent glazing?

Well VSGNA has posted a link, <http://www.vetrotech.com/usa/desktopdefault.aspx/tabid-527/>, which has short videos that will be of interest to you and address those two queries.



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Is there common sense left in this industry?

Inflation?

They want to raise the minimum wage, so what does that do for the rest of us?

Common Terms under Fire Rated Glazing

Authority Having Jurisdiction (AHJ) - typically the Chief Building Official, his designated representative or the Fire Marshall for the jurisdiction in which a project is being constructed. Under the Code and Florida Statutes, the only entity which can provide variances and approve conditions not covered by the Code.

Fire rated glazing component - typically rated glass being installed into rated frame or door; the glass must be tested, listed and labeled for the use and rating

HM - Hollow metal framing; can consist of sidelights to door, transoms above door(s), and borrowed frames. Rated HM is installed in rated walls but can only achieve a maximum rating of 45 minutes under Code reference NFPA 257 standard.

HM Door(s) - Hollow metal doors can be fire rated when they meet NFPA 252, and this standard combines conventional and temperature rise products. Fire rated glazing components must be used on rated doors, and on temperature rise doors ceramic glazing is limited to 100 square inches, while intumescent glazing may be installed up to the listed sizing.

Laminated Intumescent glazing - Multi-ply unit with layers of glass separated by intumescent chambers making layers. Layers provide the fire resistance, and the number of layers achieve the overall rating. The overall thickness will depend on the number of layers, which is determined by the desired rating.

In order to achieve a system rating, both the glazing, framing and/or door must be rated and have similar ratings.

Temperature rise systems - In framing, the profiles must protect the safe or non-exposed side from the fire exposed side by creating within the design a "break" thus the radiant heat transfer will not exceed 250 degrees F.

Wall systems must be tested under ASTM E119 or UL 263, while the doors must be tested under NFPA 252 as temperature rise products. Proper and matching glazing must be installed into the frames and/or doors.

Currently, there are various systems available which meet this requirement, but conventional HM framing does not.

Labeling - Fire rated framing, doors and glazing components must be permanently marked. Most common are components and systems labeled under UL (Underwriters Laboratory) or WHI (Warnock Hersey International).

Glass is permanently etched, while frames and doors will have metallic labels attached to them.

ASTM E119 - Test standard which tests systems as a wall equivalent. There are two sub-sections, one being for non-load bearing wall systems (drywall is an example), the other load bearing (this requires a weight as dead load applied during the fire test).

Fire rated glazing systems tested for temperature rise are tested as non-load bearing walls.

The test is comprised of fire endurance, smoke control, temperature rise (limited to maximum of 250 degrees F, and hose stream. Fixed framing as well as doors are typically tested as part of a system.

UL 263 - Underwriter Laboratories test protocol which mirrors ASTM E119 and is cited as an equal under Chapter 7, Section 715 of the 2010 Florida Building Code (and 2009 edition of the International Building Code) in testing and validating temperature rise systems

CPSC 16 CFR Part 1201 - Safety glazing requirements cited under Chapter 24 of the Codes (2010 Florida Building Code and 2009 and 2012 International Building Code editions), which apply to ALL glazing in hazardous conditions for human impact (yes, this is what applies to fire rated glazing - ANSI Z97.1 is not applicable)

New at Vetrotech Saint-Gobain North America

Vetrotech Saint-Gobain has launched an updated website, which has some new and expanded information available for your immediate use. At www.vetrotechusa.com you will be able to download product information, access the UL listings, secure standard details and see the different options that they can offer.

This is a work in progress due to the positive feedback already received, and additional refinements including the product selector will be introduced over the coming weeks and months. Your comments and suggestions are welcomed!

As is the case with all requests for pricing on both loose rated glass and on systems, the estimators work on information supplied to them so let me pass on some suggestions for a more timely and complete response:

- Include project name and location
- Send complete copies of the specification sections for systems, glass and hardware (important with systems including doors)
- Include relevant drawing sheets in PDF format
- Your take-off showing not only elevations with quantities and sizing, but any pertinent notes on special conditions such as exterior use, bullet resistant, sound reduction, etc.

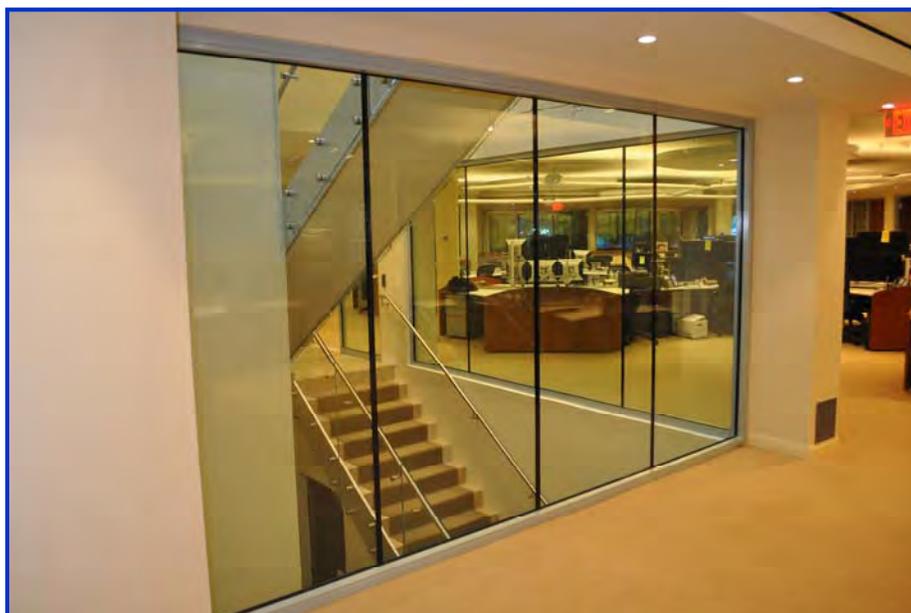
- When does this bid and when do you need it
- Your company and contact information (yes, we do get some with only a fax header)
- Who to contact with any questions

We are in a time where everyone wants everything sooner rather than later, but it takes time to generate a timely and cost effective quote for your consideration, so allow enough time to get a solid number!

In case you were not aware, VSGNA in conjunction with Greenlite has a fire rated flooring system rated for 60, 90 and 120 minutes with a number of options with regards to finish and framing. These are for applications where an open feel or other architectural effects are desired, and is very competitive in comparison to the other limited systems.

VSGNA is also working on several new systems and options for the product line which will be formally introduced over the next three to six months. More information on future issues of the newsletter.

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



Yes, this is a one hour fire rated butt-glazed wall system featuring a rated aluminum frame!

Aluflam North America

The true aluminum fire rated system - - news

In our October newsletter we had indicated that Aluflam had completed their testing of their ninety minute fire rated door, which would be a new addition to the line as well as compliment their two hour curtain wall offering.

Unfortunately we cited the incorrect approved sizing, as reflected in their UL listing. The single door maximum is 3680 and for a pair it is 7080.

This will complement its up to one hour storefront and one hour curtain wall systems which currently feature a door option with ratings up to one hour. Manufactured in southern California, this provides additional options as well as reasonable delivery times for your projects. The

finish options include clear and color anodized, standard powder coat and Kynar paint finishes.

Tested, listed and labeled under UL auspices, you can get updated information on their website, www.aluflam-usa.com.

When sending an inquiry to Aluflam please supply all needed information (see article on Vetrotech on page 3 for guidelines).

The quote will include frames, doors, door hardware and fire rated glazing as well as standard shop drawing submittals. Current lead time for quotes is one to three working days.

Resources

What are some of the most common resources you can use today:

- Code books, standards and other resources - www.iccsafe.org
- Training sessions on Florida Code and Code officials data - www.boaf.net
- Product approval process and search database of approved products - www.floridabuilding.org
- UL Product Directory - www.ul.com
- WHI Product Directory - www.intertek.com

Calendar

JANUARY

3rd Office returns from Holiday break

MARCH

18th Program for Jacksonville Chapter CSI

19th Program for Miami Chapter CSI

29th Office closed for Good Friday

APRIL

TBD First webinar topic for glazing contractors

MAY

TBD Second webinar topic for glazing contractors

27th Office closed for Memorial Day

JUNE

20th – 22nd AIA National Convention – Denver, CO

JULY

4th & 5th Office closed in celebration of Independence Day

SEPTEMBER

2nd Office closed for Labor Day

10th – 12th Glass Build 2013 – Atlanta, GA

25th – 27th Construct 2013 – Nashville, TN

NOVEMBER

28th & 29th Office closed in observance of Thanksgiving

DECEMBER

20th Office closes at end of day for Xmas / New Year Holiday

JANUARY 2014

6th Office opens after New Year Holiday

Questions Received

Q. For glass to be fire and hurricane impact rated for exterior use, what are the specific requirements and is there an option to modify fire rated glass with a conventional laminated glass?

A. The Code is clear in its requirements that the glass must be tested as an assembly which means that the combination of fire and hurricane impact must be tested and listed. This would preclude a glazier or other non-approved fabricator from making any modifications or creating their own assembly make-ups. Remember that these units must be tested, listed and labeled as an assembly.

Q. I see contradictory comments regarding quoting fire rated glass for framing by others, then in similar projects stating that a complete system must be supplied. Why?

It all depends on what is required as this is guided by the group type, occupancy and density of the project, which then dictates, per Code, what is required. The architect then furnished that information via the ratings on the construction documents.

In situations where in a one hour rated wall 45 minute assemblies such as fixed frames and doors are permitted, then you will see the typical HM usage for fixed frames and door frames with either rated HM or wood doors being indicating. Such assemblies will typically have just the proper fire rated glass quoted for installation.

If this same project had a requirement under the Code that the one hour rated wall required a 60 minute assembly, then the fixed framing would be required to be different as there is a Code requirement which requires it also meet temperature rise, which conventional framing such as HM will not meet, and the glass must also meet those requirements. In these cases manufacturers will quote you a package of frames, doors and glass.

You will be seeing this more and more as the Code enforcement along with the higher density requires a higher level of protection.

Q. I am confused in that on one project there are fixed openings in a stairwell with a note requiring the rating to be one hour, while on another project with a similar application of fixed openings in the stairwell the architect notes a 45 minute rating. Why the difference and is there a reason for it?

Let me clarify that in both cases we were looking at a three story building which Code dictates must be rated at one hour.

The Code requires that stairwells must be fully protected and also uses them as areas of refuge for those persons who are handicapped and cannot easily egress down stairs. The secure area of refuge allows fire rescue personnel to assist them to evacuate.

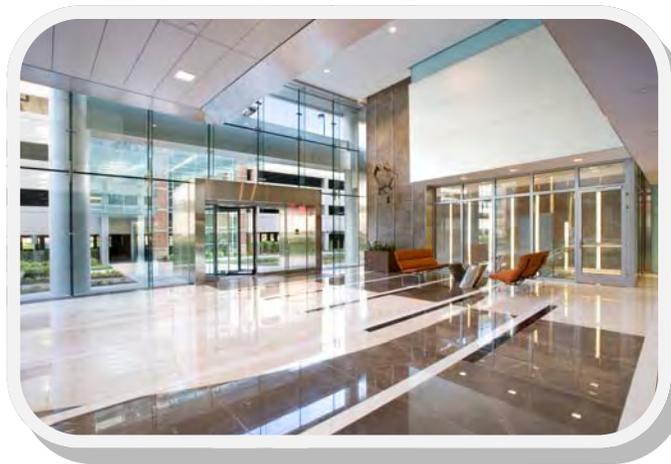
That being said the Code has been interpreted as requiring the materials incorporated into such stairwells to have the same rating of one hour. The correct products to use, under the 2010 FBC, would be fixed window assemblies which have meet the requirements under ASTM E-119 and would also, if an exterior use, have to meet the required product approval requirements. So on the examples you note in your question, both would have to use one hour rated units.

We welcome your questions on Codes, issues on fire rated glass products or systems, as well as examples of common oversights, confusing terminology or project requirements so we can not only address them but share them for education of the industry.

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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

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

Boilerplate

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Are you still chugging along?