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Department of Business and Professional Regulation

Deputy Agency Clerk

CLERK Brandon Nichols

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PETITION FOR DECLARATORY STATEMENT before THE FLORIDA BUILDING COMMISSION MAY 19TH, 2017

Company: Faour Glass Technologies Address: 5119 W. Know Street

Tampa, FL 33634

Name: Angelo Rivera
Title: Vice President
Telephone: 813.629.3189
Email: arivera@faourglass.com

DS 2017-030

Petitioner's Representative: Shawn G. Collins, P.E.

Telephone: (813)235-8712

Email: shawngcollins1@gmail.com

Statutory Provision: Agency Rule, or Agency Order on which the Declaratory Statement is being sought:

Product Approval Rule: 61G20-3.001

Petition:

Petitioner's representative served as the "witnessing engineer" as required by TAS 201-94, TAS 202-94, TAS 203-94 and TAS 301-94 for the frameless impact curtainwall system, herein SLIMPACT®, documented under Florida Product Approval 15533.1 (non-HVHZ) and 15533.2 (HVHZ). In summary, the SLIMPACT® is an all glass window wall system that does not utilize aluminum framing that traditional curtainwall and window walls utilize. This product falls within the scope of Rule 61G20-3.001, subsection (a), panel walls. The Florida Building Commission approved revision 3 of this statewide approval on August 8th, 2016. Additionally, it is widely understood that testing protocols are an integral part of the approval process for all fenestration products to provide standardized testing for similar product offerings. Standardized testing for products located in wind-borne debris regions are of paramount importance as they prove the ability of products to perform in wind-borne debris events promoting life and property safety.

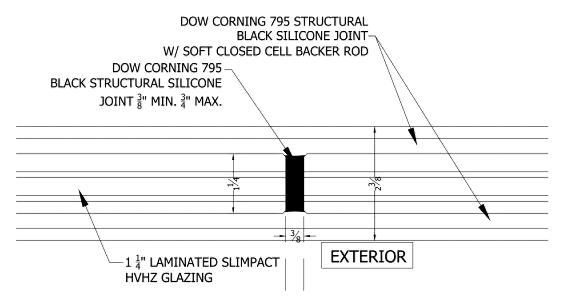
The testing for the SLIMPACT® product was performed to the applicable test protocols for HVHZ compliance and documented on test report D2758.01-401-18 (available upon request). (2) Two impacts were made to each lite of glass and to the structural silicone joint (see clarification below) to satisfy the provisions set forth in TAS 201-94, sections 1626.2.5 and 1626.2.5.2. The structural silicone joint was impacted at ½ of the span and deemed applicable, to satisfy the language found in section 1626.2.5.2 "thinnest section of the assembly." Moreover, section 6.3.2.2 of TAS 201-94 dictates any specimen containing "more than one component" have additional impacts at one half of the span at each component. This interpretation is further reinforced by the potential failure of this joint, as defined in section 1626.3.8, while undergoing cyclic wind pressure loading in accordance with TAS 203-94.



Petition (cont.):

This inquiry was brought forward to Florida DPBR and it was suggested by DPBR staff that a formal declaratory statement be filed and presented to the Florida Building Commission to render an opinion for future testing.

Clarification of "Structural Silicone Joint"



Note 1: The above detail can be found on sheet D-6 (Sheet 54 of 55) of the referenced Florida Product Approval

Note 2: The above detail is also notated as a "butt-glazed joint" on test report D2758.01-401-18

Referenced Code and Test Protocol sections:

61G20-3.001 Scope.

- (1) Products in the following categories as defined by subcategories of subsection 61G20-3.002(31), F.A.C., shall be available for approval by the Commission pursuant to Rule 61G20-3.007, F.A.C., for use in the state:
 - (a) Panel Walls;
 - (b) Exterior Doors;
 - (c) Roofing Products;
 - (d) Skylights;
 - (e) Windows;
 - (f) Shutters; and
 - (g) Structural Components.
- (2) This rule applies to approval of products and systems, which comprise the building envelope and structural frame, for compliance with the structural requirements of the Florida Building Code.



From the Florida Building Code 5th ed. (2014):

1609.1.2 Protection of openings.

In wind-borne debris regions, glazed openings in buildings shall be impact resistant or protected with an impact-resistant covering meeting the requirements of SSTD 12, ANSI/DASMA 115 (for garage doors and rolling doors) or TAS 201, 202 and 203, AAMA 506. ASTM E 1996 and ASTM E 1886 referenced herein, or an approved impact-resistant standard as follows:

- 1. Glazed openings located within 30 feet (9144 mm) of grade shall meet the requirements of the large missile test of ASTM E 1996.
- 2. Glazed openings located more than 30 feet (9144 mm) above grade shall meet the provisions of the small missile test of ASTM E 1996.
- Storage sheds that are not designed for human habitation and that have a floor area of 720 square feet (67 m²) or less are not required to comply with the mandatory windborne debris impact standards of this code.
- 4. Openings in sunrooms, balconies or enclosed porches constructed under existing roofs or decks are not required to be protected provided the spaces are separated from the building interior by a wall and all openings in the separating wall are protected in accordance with Section 1609.1.2 above. Such spaces shall be permitted to be designed as either partially enclosed or enclosed structures.

From TAS 201-94:

6.3.2.2 When testing any specimen with more than one component, in addition to complying with the impacts required by Section 1626.2 of the *Florida Building Code*, *Building* the framing member connecting these components shall be impacted at one half the span of such member with the large missile at a speed indicated in Section 1626.2.4 of the *Florida Building Code*, *Building*.

Referenced Code and Test Protocol sections (cont.):

1626.2.5

Each test specimen shall receive two impacts, except as noted in Sections 1626.2.5.1 and 1626.2.5.2, the first within a 5-inch (127 mm) radius circle having its center on the midpoint of the test specimen and the second within a 5-inch (127 mm) radius circle in a corner having its center in a location 6 inches (152 mm) away from any supporting members.

1626.2.5.1

For window, glass block, fixed glass and skylight assemblies, both impacts shall be to glass or other glazing infill. For test specimens with more than one light of glass, a single light closest to the center of the assembly shall be selected and impacted twice in accordance with Section 1626.2.5. If a light of glass is sufficiently small to cause the 5-inch (127 mm) radius circle to overlap, two separate lights shall be impacted, one time each.

1626.2.5.1.1

For window, fixed glass and skylight assemblies comprised of different glass thickness, types of glass or different types of glazing infill, each separate thickness or type shall be impacted twice in accordance with Section 1626.2.5.

1626.2.5.2

For doors, wall cladding and external protection devices, both impacts shall be to the thinnest section through the assembly. For doors, wall cladding and external protection devices with horizontal and/or vertical bracing, both impacts shall be within a single area that is not reinforced and shall be in accordance with Section 1626.2.5.

1626.2.5.2.1

For doors with glass, the glass shall be impacted twice and the thinnest section through the assembly that is not glass shall be impacted twice in accordance with Section 1626.2.5.



From the Florida Building Code 5th ed. (2014):

1626.3.8

A particular system of construction shall be deemed to comply with this test if three test specimens reject the small missile impacts without penetration and resist the cyclic pressure loading with no crack forming longer than 5 inches (127 mm) and $^{1}/_{16}$ inch (1.6 mm) in width through which air can pass.

Closure:

In summary, for future testing to be compliant with TAS 201 and the above referenced sections for the Florida Building Code 5th edition, are large missile impacts required at the structural silicone joint?

Petitioner and Petitioner's Representative respectfully believe that in the interest of life and property safety that large missile impacts are required on this joint, as it is the weakest component of the system. Thus, this component should be impacted to satisfy the test protocols, the spirit of the code and to promote life and property safety.

Signatures:

Angelo Rivera

VP, Faour Glass Technologies

Date: 05/19/2017

Shawn G. Collins, P.E. Petitioner's Representative

Date: 05/19/2017