thirsty THURSDAY Quench your thirst for knowledgel

Point-Supported Glazing

Melissa Szotkowski Structural Glass Systems Manager Oldcastle BuildingEnvelope®

MARK YOUR CALENDAR FOR THESE OTHER UPCOMING EVENTS

BEC Conference March 1-3, 2020 Nashville. TN REGISTER NOW! glass.org

Thirsty Thursday March 19, 2020 webinar

NGA Glass Conference: Chicago July 28-30, 2020 Northbrook, IL

GlassBuild America, with Glazing Executives Forum Sept 15-17, 2020 Las Vegas, NV

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February 20, 2020

Outline

- 1. Point Supported Glazing
 - a) What is it?
 - b) Where is it?
- 2. Design
 - a) Existing Design Tools
 - b) Standards Development
- 3. Updated NGA Glass Technical Paper



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Point Supported Glazing – What is It?



- An alternative to 4-side supported or edge supported glazing
- An engineered product

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Point Supported Glazing – What is it?

- A form of structural glass
 - Monolithic
 - Laminated
 - Insulating
 - Insulating with Laminated



Point Supported Glazing – What is It?

- Designed for transparency
 - Thru-hole fittings
 - Patch/clamp fittings







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Point Supported Glazing – What is It?



- Supported by back up structure
 - Metal framing
 - Glass fins
 - Tension rods



Point Supported Glazing – Where is it?

- Canopies
- Skylights/Roofs
- Walls



Point Supported Glazing – Where is it?

- Skylights/Roofs
- Walls



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- ASTM standard practice under development
 - E06.52 WK37764 Structural Use of Glass in Buildings
- GANA Point Supported Glass task group formed
 - List of general recommendations
 - Conservative allowable stress values
 - Current design practices
 - Published test data
 - ASTM C1048 values and ASTM E1300 values and methods
 - Basic Method and Analytical Method







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Point Supported Glazing – FB07-05 (2019)

Allowable Stresses

- Fully Tempered 9,700 psi (67 MPa)
- Heat Strengthened 3,500 psi (24 MPa)

Countersunk Hole Detail

- 3/8" (10mm) minimum thickness
- 40% thickness remaining minimum

General Guidance

- ASTM E1300 Standard Practice for Determining Load Resistance of Glass in Buildings
- ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
- <u>https://www.astm.org/Standard/standards-and-publications.html</u>



Point Supported Glazing – FB07-05 (2019)



Testing is Always an Option

Point Supported Glazing – FB07-05 (2019)

NGA Glass Technical Papers https://www.glass.org/resources/publications/

Questions?



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