MARK YOUR CALENDAR FOR THESE OTHER UPCOMING EVENTS

**BEC Conference**
March 1-3, 2020
Nashville, TN

**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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Point-Supported Glazing
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February 20, 2020

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REGISTRATION OPEN at glass.org!
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

Point Supported Glazing – What is It?

- An alternative to 4-side supported or edge supported glazing
- An engineered product
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
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
Point Supported Glazing – Where is it?

- Canopies

Point Supported Glazing – Where is it?

- Railings
- Walls
Point Supported Glazing – Where is it?

• Railings

Point Supported Glazing - Design

• Industry demand for standardized engineering guidelines
  • Varying approaches used by different engineers
  • Structural Use of Glass in Buildings - IStructE
  • LD 03-0612 Point Supported Glazing - GANA
  • Engineering Structural Glass Design Guide - NSCEA
  • ASTM E1300 - specifically excludes glass with holes
  • Australian standard (AS 1288)
  • No ASTM standard for IBC reference
Point Supported Glazing – Design

- 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

Point Supported Glazing – NGA with GANA

- GIB LD 03-0616 Point Supported Glazing (2005), rev. 2012
  - Up for review
  - Contained similar recommendations
  - Consolidated efforts
  - Point Supported Glazing
  - https://www.glass.org/resources/publications/glass-informational-bulletins-technical-papers
Point Supported Glazing – NGA with GANA

Updated 2019 Version vs. Previous 2012 Version

Performance Considerations

• allowable stresses (HS & FT)
• recommendation regarding holes
• testing option

• Hardware

• Vertical Façade Applications
  • emphasis on coordination with the building engineer

• Sloped and Overhead Applications
  • information regarding interlayer considerations

References
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


Point Supported Glazing – FB07-05 (2019)

Referenced Sources

Point Supported Glazing

References:

- AS 1288 Glass in Buildings – Selection and Installation
- AS 1289: Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass

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Point Supported Glazing – FB07-05 (2019)

Testing is Always an Option

Questions?
Thirsty Thursday

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