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SPECIFICATION

SECTION 08 8810: FIRE RATED GLASS

PYRAN® Platinum 20-90 min. Fire Rated Ceramic Glass

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated glazing
 - 1. PYRAN® Platinum clear fire rated ceramic glass for 20-90 minute non-safety interior and exterior applications.
 - 2. Applications of fire rated glazing include:
 - a. Fire rated glazing as windows or transoms in fire rated frames.
- B. Related Sections:
 - 1. Section 01 3323: Shop Drawings, Product Data and Samples.
 - 2. Section 08 5130: Steel Windows.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E2010-01 Standard Test for Positive Pressure of Fire Tests of Window Assemblies.
- B. National Fire Protection Association (NFPA):
 - 1. NFPA 80: Fire Doors and Windows.
 - 2. NFPA 257: Fire Tests of Window Assemblies.
- C. Underwriters Laboratories, Inc. (UL):
 - 1. UL 9: Standard for Safety of Fire Tests of Window Assemblies.
- D. Standard Council of Canada (ULC):
 - 1. ULC Standard CAN4-S106: Fire Tests of Window Assemblies.
- E. Glass Association of North America (GANA)
 - 1. GANA - Glazing Manual.
 - 2. FGMA - Sealant Manual. 2
- F. [Insert building code used by Authority Having Jurisdiction]

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide a fire rating glazing manufactured, fabricated and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.



1. Fire Rating: PYRAN® Platinum is fire rated from 20-90 minutes with hose stream and is limited to non-safety rated locations.
 2. PYRAN® Platinum is tested in accordance with NFPA 80, NFPA 257, UL 9, ASTM E2010-01 and CAN4-S106.
 3. Testing Laboratory: Fire test shall be conducted by a nationally recognized independent testing laboratory.
- B. Listings and Labels:
1. Fire rated glazing shall be under current follow-up service by a nationally recognized independent testing laboratory approved by OSHA and maintain a current listing or certification. Assemblies shall be labeled in accordance with limits of listings.

1.04 SUBMITTALS

- A. Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedure Section.
1. Shop Drawings: Submit shop drawings showing layout, profiles and product components.
 2. Samples: Submit 6x6 glass samples.
 3. Technical Information: Submit latest edition of manufacturer's product data.

1.05 DELIVERY, STORAGE AND HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Delivery: Deliver materials to specified destinations in manufacturer's or distributor's packaging undamaged, complete with installation instructions.
- D. Storage and Protection: Store off ground, under cover, protected from weather and construction activities and at temperature conditions recommended by manufacturer.

1.06 PROJECT CONDITIONS

- A. A. Field Measurements: Verify actual measurements for openings by field measurements before fabrication. Show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.07 WARRANTY



- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document. Manufacturer's warranty is not intended to limit other rights that the Owner may have under the Contract Documents.
 - 1. Warranty Period: 10 years from date of shipping.

PART 2 PRODUCTS

2.01 FIRE RATED GLAZING

- A. Material: PYRAN® Platinum 20-90 minute fire protective ceramic glass with hose stream.
 - 1. Manufacturer: PYRAN® Platinum as manufactured by SCHOTT Technical Glass Solutions and distributed by GGI - General Glass International; 101 Venture Way, Secaucus, New Jersey; 800.431.2042, sales@generalglass.com, www.generalglass.com
- B. Design Requirements:
 - 1. Thickness: Must be 3/16" (5 mm) thick.
 - 2. Weight: Must weigh 2.5 lbs./sq. ft.
 - 3. Sound Transmission Rating: Must meet 31 STC.
 - 4. Fire Rating: 20-90 minutes with hose stream.
 - 5. Appearance: Must have neutral coloration free of amber tints.
 - 6. Cradle to Cradle Certification: Must be C2C Silver Certified.
 - 7. Environmental Impact: Manufacturing process and final product composition must be free from toxins or hazardous heavy metals.
- C. Manufacturer's Fire Rated Glazing Material:
 - 1. Each piece of fire-rated glazing material shall be labeled with a permanent logo including name of product, manufacturer, testing laboratory and fire rating.
- D. Substitutions: No substitutions allowed.

2.02 MATERIALS

- E. Glazing Accessories: Manufacturer recommended fire rated glazing accessory as follows:
 - 1. Glazing tape: Closed cell polyvinyl chloride (PVC) foam, Pemko Manufacturing Company, Ref. FG3000S90 or Unifax Corporation Fiberfrax Alumino-Silicate fiber glazing tape.
 - 2. Setting blocks: Calcium silicate or hardwood.
 - 3. Cleaners, primers, sealers: Type recommended by manufacturer of glass and gaskets.



2.03 RELATED PRODUCTS

- A. Glazing shall be installed in an equally rated framing system.

2.04 SOURCE QUALITY

- A. Obtain fire rated glazing products from a single manufacturer.
- B. Fabrication Dimensions: Fabricate to approved dimensions. The general contractor shall guarantee dimensions where practicable within required tolerances.

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data including product technical bulletins and installation instructions.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, have been previously installed under other sections, and are acceptable for product installation in accordance with manufacturer's instructions.

3.03 INSTALLATION (GLAZING)

- A. Comply with referenced GANA manuals and instructions of manufacturers of glass, glazing sealants and glazing compounds. 5
- B. Protect glass from edge damage during handling and installation. Inspect glass during installation and set aside pieces with edge damage that could affect performance.
- C. Set units of glass in each series with uniformity of pattern, draw, bow and similar
- D. characteristics.
- E. Cut glazing tape to length and set against permanent stops, flush with sight lines to fit openings exactly, with stretch allowance during installation.
- F. Arrange two setting blocks located at quarter points of glass with edge block no more than 6 inches from corners.
- G. Glaze vertically into labeled fire rated frames or fire rated walls with the same fire rating as the glass and push against tape for full contact at perimeter of pane or unit.
- H. Place glazing tape on free perimeter of glazing in same manner described above.
- I. Install removable stop and secure without displacing the tape.
- J. Install so that appropriate markings remain permanently visible.
- K. Field cutting or tampering is strictly prohibited.



3.04 CLEANING AND PROTECTION

- A. Protect glass from contact with contaminating substances resulting from construction operations. Remove such substances by method approved by manufacturer.
- B. Wash glass on both faces not more than four days prior to date schedule for inspections intended to establish date of Substantial Completion. Wash glass by method recommended by glass manufacturer.
- C. Remove temporary coverings and protection of adjacent work areas.
- D. Remove construction debris from project site and legally dispose of debris. 6

END OF SECTION

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