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SPECIFICATION
SECTION 08 8810: FIRE RATED GLASS & FRAMING
PYRAN® Platinum F 20-180 min. Fire Rated Filmed Ceramic Glass

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated glazing
1. PYRAN® Platinum F clear fire rated, safety rated filmed ceramic glass for 20-180 minute interior and exterior applications.
 2. Applications of fire rated glazing include:
 - a. Fire rated glazing as vision lites in door assemblies.
 - b. Fire rated glazing as sidelites, windows or transoms in fire rated frames.
- B. Related Sections:
1. Section 01 3323: Shop Drawings, Product Data and Samples.
 2. Section 06 4000: Architectural Woodwork.
 3. Section 08 1110: Steel Doors and Frames.
 4. Section 08 1400: Wood Doors and Frames.
 5. Section 08 5130: Steel Windows.
 6. Section 08 7000: Finish Hardware.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
1. ASTM E2074-00 Methods of Fire Tests of Door Assemblies, including Positive Pressure Testing of Side-hinged and Pivoted Swinging Door Assemblies.
 2. 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 252: Fire Tests of Door Assemblies.
 3. NFPA 257: Fire Tests of Window Assemblies.
- C. Underwriters Laboratories, Inc. (UL):
1. UL 9: Standard for Safety of Fire Tests of Window Assemblies.
 2. UL 10B: Standard of Safety of Fire Tests of Door Assemblies.
 3. UL 10C: Standard for Safety of Positive Pressure Tests of Door Assemblies.
- D. Standard Council of Canada (ULC):
1. ULC Standard CAN4-S104: Fire Tests of Door Assemblies.
 2. ULC Standard CAN4-S106: Fire Tests of Window Assemblies.
- E. Consumer Products Safety Commission (CPSC):
1. CPSC 16 CFR 1201: Safety Standard for Architectural Glazing Materials.

- F. American National Standards Institute (ANSI):
 - 1. ANSI Z97.1: Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test.
- G. Glass Association of North America (GANA)
 - 1. GANA – Glazing Manual.
 - 2. FGMA – Sealant Manual.
- H. [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 F is fire rated from 20-180 minutes and is impact safety rated to meet CPSC 16 CFR 1201 Category I and II.
 - 2. PYRAN® Platinum F is tested in accordance with NFPA 80, NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C, ASTM E2074-00, ASTM E2010-01, ASTM E2074-00, ASTM E2010-01, CAN4-S104 and CAN4-S106.
 - 3. Maximum Sheet Size is 51 in. x 99 in. Maximum clear view area for 60-180 min. temperature rise doors is 100 sq. in. Maximum clear view area for 20-90 minute non-temperature rise doors is 2,736 sq. in. (36 in. width x 76 in. height). Maximum clear view area for sidelites, openings and transoms where ASTM E-119/UL 263/ULC-S101 is not required is 4,933 sq. in. (98-1/4 in. width or height).
 - 4. 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 6 x 6 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. 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 F 20-180 minute fire protective safety filmed glass ceramic with hose stream.
- B. Manufacturer: PYRAN® Platinum F as manufactured by SCHOTT Technical Glass Solutions and distributed by SAFTI *FIRST* Fire Rated Glazing Solutions.
 - 1. Contact: 100 N Hill Drive, Suite 12, Brisbane, CA 94005; Telephone 888.653.3333; Fax 888.653.4444; email info@safti.com; Web site www.safti.com
- C. 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. Appearance: Must have neutral coloration free of amber tints.
 - 5. Fire Rating: Must be fire rated from 20-180 minutes with hose stream.
 - 6. Impact Safety Rating: Must meet CPSC 16 CFR 1201 Category I & II.
 - 7. Cradle 2 Cradle Certification: Must be C2C Silver Certified.
 - 8. Environmental Impact: Manufacturing process and final product composition must be free from toxins or hazardous heavy metals.
- D. 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.

E. Substitutions: No substitutions allowed.

2.02 MATERIALS

- A. 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

Note: Basis of design for fire rated framing system is GPX Framing as manufactured by SAFTI *FIRST*[™]

- 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.
- 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 characteristics.

- D. Cut glazing tape to length and set against permanent stops, flush with sight lines to fit openings exactly, with stretch allowance during installation.
- E. Arrange two setting blocks located at quarter points of glass with edge block no more than 6 inches from corners.
- F. 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.
- G. Place glazing tape on free perimeter of glazing in same manner described above.
- H. Install removable stop and secure without displacing the tape.
- I. Install so that appropriate markings remain permanently visible.
- J. 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.

END OF SECTION

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