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SPECIFICATION
SECTION 08 8810: FIRE RATED GLASS & FRAMING
SuperLite™ I 20 minute and
SuperLite™ I 20 minute with Starphire® Ultra-Clear Glass by PPG

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated glazing
1. SuperLite™ I fire protective, safety rated, specialty tempered glazing material for 20 minute interior and exterior applications.
 2. Applications of fire rated glazing include:
 - a. Fire rated glazing as vision lites in fire rated door applications.
 - b. Fire rated glazing as openings 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 8000: Glazing.
 4. Section 08 1110: Steel Doors and Frames.
 5. Section 08 1120: Aluminum Doors and Frames.
 6. Section 08 1113: Hollow Metal Doors and Frames.
 7. Section 08 1400: Wood Doors and Frames.
 8. Section 08 5130: Steel Windows.
 9. Section 08 7000: Finish Hardware.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
1. ASTM E152: Methods of Fire Tests of Door Assemblies.
 2. ASTM E163: Methods of Fire Tests of Window Assemblies.
 3. ASTM E2074-00: Methods of Fire Tests of Door Assemblies, including Positive Pressure Testing of Side-hinged and Pivoted Swinging Door Assemblies.
 4. 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 for 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.
3. CSN/ULC-S101M: Standard Methods of Fire Endurance Tests.

E. Consumer Product Safety Commission (CPSC):

1. CPSC 16 CFR 1201 Cat. I & II: Safety Standard for Architectural Glazing Materials.

F. Glass Association of North America (GANA)

1. GANA – Glazing Manual.
2. FGMA – Sealant Manual.

G. [American Recovery and Reinvestment Act

1. Section 1605, Title XVI Buy American Provision]

H. [Insert building code used by Authority Having Jurisdiction]

1.03 SYSTEM DESCRIPTION

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

1. Fire Rating: 20 minutes without hose stream.
2. Fire protective, safety rated, specialty tempered glass tested in accordance with NFPA 80, NFPA 252, NFPA 257, UL 9, UL 10B and UL 10C.
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. 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: Lifetime warranty from date of shipping.

PART 2 PRODUCTS

2.01 FIRE RATED GLAZING

- A. Material: [SuperLite I 20 minute specialty tempered glazing] [SuperLite I 20 minute with Starphire® Ultra-Clear Glass by PPG specialty tempered low-iron glazing] without hose stream.
- B. Manufacturer: SuperLite I as manufactured and distributed by SAFTI *FIRST*.
 - 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.
 - 2. Fire rated glass and framing must be provided by a single-source, US manufacturer. Distributors of fire rated glass and framing are not to be considered as manufacturers.
- C. Design Requirements:
 - 1. Thickness: Must be 1/4" (6 mm) thick. 1/2" (12 mm) available.
 - 2. Weight: Must weigh 3.0 lbs./sq. ft.
 - 3. Solar Heat Gain Coefficient: Must provide 0.82 SHGC.
 - 4. Sound Transmission Rating: Must provide STC 28 rating.
 - 5. Appearance: Must be [specialty tempered] [low-iron specialty tempered] float glass.
 - 6. Visible Light Transmission: Must meet 0.88
 - 7. Fire Rating: Must be fire rated to 20 minutes without hose stream test.
 - 8. Impact Safety Resistance: Must meet CPSC 16 CFR 1201 Cat. I (150 ft. lbs.; limited to 1,296 sq. in.) & II (400 ft. lbs.; up to maximum size tested).

- 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, fire rating period and safety glazing standards.
 - 2. Glazing material installed in Hazardous Locations, subject to human impact, shall be certified and permanently labeled as meeting applicable requirements referenced in NFPA 80:
 - a. CPSC 16 CFR 1201, Category I & II

E. Substitutions: No substitutions allowed.

2.02 MATERIALS

- A. Glazing Accessories: Manufacturer recommended fire rated glazing accessory as follows:
 - 1. Glazed with EPDM tape or other flame resistant gasket material and calcium silicate setting blocks.

2.03 RELATED MATERIALS

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

- A. Glazing shall be installed in an equivalently 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

- A. Installation shall be in strict accordance with the fire glazing material manufacturer's specifications. 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

In the interest of continuous improvement of its product line, SAFTI*FIRST*[™] reserves the right to modify its products' composition, colors, textures, sizes, and other physical and performance attributes and these guide specifications at any time. SAFTI*FIRST*[™] makes no expressed or implied warranties regarding content, errors, or omissions in the information presented. Specifications modified or rewritten not in conformance with manufacturer's standard processes, products, and procedures may void warranties and related remedies.