

SPECIFICATION

SECTION 08810

GLASS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated glazing
 - 1. SuperLite™ I-W fire rated glazing material.
 - 2. Applications of fire rated glazing includes:
 - a. Fire rated glazing as vision lights in transparent wall and door assemblies.
 - b. Fire rated glazing as sidelights, windows or transoms in fire rated frames.
- B. Related Sections:
 - 1. Section 01340: Shop Drawings, Product Data and Samples.
 - 2. Section 08110: Steel Doors and Frames.
 - 3. Section 08275: Door Louvers & Vision Lights.
 - 4. Section 08510: Steel Windows.
 - 5. Section 08710: Finish Hardware.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E2074-00 Methods of Fire Tests of Door Assemblies.
 - 2. ASTM E2010-01 Methods for 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. Uniform Building Codes (UBC):
 - 1. UBC-7-2: Methods for Fire Tests of Door Assemblies.
 - 2. UBC-7-4: Methods for Fire Tests of Window Assemblies.
- D. Underwriters Laboratories, Inc. (UL):
 - 1. UL 9: Fire Tests of Door Assemblies.
 - 2. UL 10 C: Fire Tests of Window Assemblies.
- E. Standard Council of Canada (ULC):
 - 1. ULC Standard CAN4-S104-M80: Fire Tests of Door Assemblies.
 - 2. ULC Standard CAN4-S106-M80: Fire Tests of Window Assemblies.
- F. American National Standards Institute (ANSI):
 - 1. ANSI Z97.1: Standard for Safety Glazing Materials Used in Buildings.
- G. Consumer Product Safety Commission (CPSC):
 - 1. CPSC Cat II 400 ft. pounds: Safety Standard for Architectural Glazing Materials.

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: 20, 30, 45*, 60* minutes. Use of SuperLite™ I-W 45 and 60 minute is subject to AHJ approval for the specific application. *Tested without hose stream.
 - 2. Window Certification: Window assemblies with ratings of less than 60 minutes may be tested in accordance with ASTM E2010-01, NFPA 257, UBC 7-4, UL 9, CAN4-S106 Standard Test Methods.
 - 3. Door Certifications: Doors shall be tested in accordance with ASTM E2074-00, NFPA 252, UBCE 7-2, UL 10b or CAN4-S104 Standard Test Methods of Fire Tests of Door Assemblies.
 - 4. Testing Laboratory: Fire test shall be conducted by an approved independent testing laboratory, similar to Warnock Hersey International or Underwriter's Laboratories, Inc.
- B. Listings and Labels:
 - 1. Fire rated glazing shall be under current follow-up service by an approved independent agency 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 samples for finishes, colors and textures.
 - 3. Technical Information: Submit latest edition of manufacturer's product data providing product descriptions, technical data and installation instructions.

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 in addition to, and not a limitation of, other rights Owner may have under the Contract Documents.
 - 1. Warranty Period: 5 years commencing on Date of Substantial Completion.

PART 2 PRODUCTS

2.01 FIRE RATED GLAZING

- A. Manufacturer: SAFTI a division of O’Keeffe’s Inc.
 - 1. Contact: 325 Newhall Street, San Francisco, CA 94124-2693; Telephone 415/822-4222 Fax 415/822-5222

- B. Proprietary Products System: SuperLite™ Fire and Safety Rated Glass.
 - 1. SuperLite™ I -W Specialty high impact wired, fire rated glazing material.
 - 2. Thickness: 1/4” (6.4 mm).
 - 3. U Value: 1.01
 - 4. Weight: 3.0 lbs./sq.ft.
 - 5. Sound Transmission Rating: 28 STC
 - 6. Light Transmission Rating: 81%
 - 7. Glazing material shall contain wire pattern, be colorless and free from unusual distortion.

- 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 (Warnock Hersey or Underwriters 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. ANSI Z97.1, 100 ft-LB (1780 N).
 - b. CPSC 16 CFR 1201, Category II 400 ft.lbs.

- D. 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 PRODUCTS

Framing Systems: Refer to Division 8 Doors & Windows Sections for related framing systems materials.

- A. Glazing shall be installed in a rated framing system meeting ASTM E2010-01, NFPA 257, UL 9, UBC 7-4 or CAN4-S106 and ASTM E2074-00, NFPA 252, UL 10b, UBC 7-2 or CAN4-S104.

2.04 SOURCE QUALITY

- A. Source Quality: Obtain fire rated glazing products from a single manufacturer.
 - 1. Fabrication Dimensions: Fabricated 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 resistant glazing material manufacturer's specifications. Field cutting or tampering is strictly prohibited.

3.04 CLEANING

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Clean installed products in accordance with manufacture's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

END OF SECTION