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**SPECIFICATION**  
**SECTION 08 8810: FIRE RATED GLASS & FRAMING / 08 8853 SECURITY GLAZING**  
**SuperSecure™ II-XLS FIRE RESISTIVE SECURITY GLAZING**  
**45 – 120 MINUTES**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Fire rated glazing
1. SuperSecure™ II-XLS 45-120 min. fire resistive security glazing for interior and exterior applications.
  2. Applications of fire resistive security glazing includes:
    - a. Glazing as vision lites in door assemblies.
    - b. Glazing as sidelites, windows, transoms in fire rated frames.
- B. Related sections:
1. Section 01 3323: Shop Drawings, Product Data and Samples.
  2. Section 08 8000: Glazing.
  3. Section 08 3445: Security Doors and Frame.
  4. Section 08 3413: Detention Doors and Frames.
  5. Section 08 5633: Security Windows.
  6. Section 08 5663: Detention Windows.
  7. Section 08 5130: Steel Window.
  8. Section 08 1110: Steel Doors and Frames.
  9. Section 08 7000: Finish Hardware.

**1.02 REFERENCES**

- A. American Society for Testing and Materials (ASTM):
1. ASTM E119: Methods for Fire Tests of Building Construction and Materials.
  2. ASTM E152: Methods for Fire Tests of Door Assemblies.
  3. ASTM E163: Methods for Fire Tests of Window Assemblies.
  4. ASTM E2074: Standard Test Method for Fire Tests of Door Assemblies, including Positive Pressure Testing of Side-hinged and Pivoted Swinging Door Assemblies.
  5. ASTM E2010-1: Standard Test for Positive Pressure of Fire Tests of Window Assemblies.
  6. ASTM F1233: Standard Test Method for Security Glazing Materials and Systems.
  7. ASTM F1915: Standard Test Method for Glazing for Detention Facilities.
- B. National fire Protection Association (NFPA):
1. NFPA 80: Fire Doors and Windows.
  2. NFPA 251: Fire Tests of Building Construction and Materials.
  3. NFPA 252: Fire Tests of Door Assemblies.
  4. 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 10 B: Standard for Safety of Fire Tests of Door Assemblies.
  3. UL 10 C: Standard for Safety of Positive Pressure Tests of Door Assemblies.
  4. UL 263: Fire Tests of Building Construction and Materials.

- D. Standard Council of Canada:
1. ULC Standard CAN4-S101: Fire Tests of Building Construction and Materials.
  2. ULC Standard CAN4-S104: Fire Tests of Door Assemblies.
  3. ULC Standard CAN4-S106: Fire Tests of Window Assemblies.

- E. California Department of Corrections & Rehabilitation (CDCR):
1. CDCR 860-09a

- F. Consumer Product Safety Commission (CPSC):
1. CPSC 16 CFR 1201: Safety Standard for Architectural Glazing Materials.

- G. Glass Association of North America (GANA)
1. GANA – Glazing Manual.
  2. FGMA – Sealant Manual.

- H. [American Recovery and Reinvestment Act
1. Section 1605, Title XVI Buy American Provision]

- I. [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: 45-120 minutes with hose stream.
  2. CDCR Forced Entry Rating: CDCR 860-09a testing requirements.
  3. ASTM F1915 Grade: Meets Grade 1-4.
  4. Fire resistive security glazing tested in accordance with ASTM E119, NFPA 80, NFPA 251, NFPA 252, NFPA 257, UL 9, UL 10B, UL 10C, UL 263, CDC 860-09a and ASTM F1915.
  5. Testing Laboratory: Fire test shall be conducted by a nationally recognized independent testing laboratory.
- B. Listings and Labels:
1. Fire resistive security glazing shall be under current follow-up services by 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 layouts, profiles and product components.
2. Samples: Submit 12x12 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 or distributor's packaging.

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: 5 years from date of shipping.

### **PART 2 PRODUCTS**

#### 2.01 FIRE RESISTIVE SECURITY GLAZING

A. Material: SuperSecure™ II-XLS 45-120 minute fire resistive security glazing.

B. Manufacturer: SuperSecure™ II-XLS 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@safte.com](mailto:info@safte.com); Web site [www.safte.com](http://www.safte.com).
2. Fire resistive security 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. Make-up: Tempered Glass-clad Polycarbonate insulated over Laminated Tempered Glass combined with a proprietary polymer in accordance with required fire-resistive fire-rating.
2. Thickness and Weight (all dimensions and weights are nominal):

CDCR

Fire Rating	Thickness	Weight
45 minutes	1.375 in.	12 lbs./sq. ft.
60 minutes	1.75 in.	13.5 lbs./sq. ft.
90 – 120 minutes	2.125 in.	18 lbs./sq. ft.

ASTM F1915 Grade 1

Fire Rating	Thickness	Weight
45 minutes	1.75 in.	16.3 lbs./sq. ft.
60 minutes	2.125 in.	17.3 lbs./sq. ft.
90 – 120 minutes	2.5 in.	20.3 lbs./sq. ft.

ASTM F1915 Grade 2

Fire Rating	Thickness	Weight
45 minutes	1.5 in.	14.16 lbs./sq. ft.
60 minutes	1.875 in.	15.16 lbs./sq. ft.
90 – 120 minutes	2.25 in.	18.16 lbs./sq. ft.

ASTM F1915 Grade 3

Fire Rating	Thickness	Weight
45 minutes	1.375 in.	13.8 lbs./sq. ft.
60 minutes	1.175 in.	14.8 lbs./sq. ft.
90 – 120 minutes	2.125 in.	17.8 lbs./sq. ft.

ASTM F1915 Grade 4

Fire Rating	Thickness	Weight
45 minutes	1.125 in.	13.1 lbs./sq. ft.
60 minutes	1.625 in.	14.1 lbs./sq. ft.
90 – 120 minutes	2 in.	17.1 lbs./sq. ft.

3. Dimensions (call SAFTI *FIRST* for custom sizes exceeding 96 in. up to 124 in.):

Fire Rating	Application	Max CV Area	Max CV W	Max CV H	Stops
45 - 60 minutes	Doors, Sidelites, Windows, Transoms, Walls	4952 sq. in.	96"	96"	1"
90-120 minutes	Doors, Sidelites, Windows, Transoms, Walls	4876 sq. in.	96"	96"	1"

4. Appearance: Clear, non-wired glazing

5. Fire Rating: Must be fire rated from 45-120 minutes with hose stream and meet ASTM E-119.
6. CDCR Forced Entry Rating: Must have CDCR 860-09a testing requirements
7. ASTM F1915 Grade: Must meet Grade 1-4 per ASTM F1915.
8. Impact Safety Resistance: CPSC 16 CFR 1201 Cat. I & II.

D. Manufacturer's Fire Resistive Security Glazing Material:

1. Each piece of fire resistive security 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 materials installed in Hazardous Locations, subject to human impact, shall be certified and permanently labeled as meeting applicable requirements reference in NFPA 80:
  - a. CPSC 16 CFR 1201 Cat. I & II

E. Substitutions: No substitutions allowed.

## 2.02 MATERIALS

A. Glazing Accessories: Manufacturer recommended fire rated glazing accessory as follows:

1. Glazing with EPDM tape or other listed flame resistant gasket material and calcium silicate setting blocks.

## 2.03 RELATED PRODUCTS

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

## 2.04 SOURCE QUALITY

- A. Obtain fire resistive security 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, SAFTIFIRST™ reserves the right to modify its products' composition, colors, textures, sizes, and other physical and performance attributes and these guide specifications at any time. SAFTIFIRST™ 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.