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SPECIFICATION
SECTION 08 1125: INTERIOR ALUMINUM DOORS AND FRAMES
Titan 20 Minute Aluminum Door

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fire rated framing system.
 - 1. 20 minute fire protective full vision aluminum stile and rail glass doors for interior use.
- B. Related Sections:
 - 1. Section 01 3323: Shop Drawings, Product Data and Samples
 - 2. Section 08 4113: Aluminum Framed Entrances and Storefronts
 - 3. Section 08 4113.13: Fire Rated Aluminum Framed Entrances and Storefronts
 - 4. Section 08 7100: Finish Hardware
 - 5. Section 08 8000: Glazing

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM E152: Methods of Fire Tests of Door Assemblies.
 - 2. ASTM E2074: Standard Test Method for Fire Tests of Door Assemblies, including Positive Pressure Testing of Side-hinged and Pivoted Swinging Door Assemblies.
- B. National Fire Protection Association (NFPA):
 - 1. NFPA 80: Fire Doors and Windows.
 - 2. NFPA 252: Fire Tests of Door Assemblies.
- C. Underwriters Laboratories, Inc. (UL):
 - 1. UL 10 B: Standard for Safety of Fire Tests of Door Assemblies.
 - 2. UL 10 C: Standard for Safety of Positive Pressure Fire Tests of Door Assemblies.
- D. Standard Council of Canada (ULC):
 - 1. ULC Standard CAN4-S104: Fire Tests of Door Assemblies.
- E. Consumer Product Safety Commission (CPSC):
 - 1. CPSC 16 CFR 1201: Safety Standard for Architectural Glazing Materials.
- F. Glass Association of North America (GANA)
 - 1. GANA – Glazing Manual.
 - 2. FGMA – Sealant Manual.
- G. [Insert building code used by Authority Having Jurisdiction]

1.03 SYSTEM DESCRIPTION

A. Performance Requirements:

1. Fire Rating: must meet 20 minutes.
2. Door Certifications: must be tested in accordance with ASTM E2074-00, NFPA 80, NFPA 252, UL 10B and 10C.
3. Testing Laboratory: Fire test must be conducted by a nationally recognized independent testing laboratory.
4. Glazing: must be 20 minute fire protective glazing up to the max. size tested. All glazing used in doors must meet CPSC Cat. I or II impact safety.
5. Max. Door Opening Sizes: must meet maximum sizes of 48" x 108" for single doors and 96" x 108" for pair doors. No intermediate rails required.

B. Listings and Labels:

1. Fire protective do system 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 samples for finishes, colors and textures.
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 FABRICATION DIMENSIONS

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.

PART 2 PRODUCTS

2.01 MANUFACTURERS – FIRE PROTECTIVE ALUMINUM DOOR

- A. Manufacturer of Door System: Titan 20 Minute Aluminum Door by Titan Metal Products, a division of SAFTI *FIRST*® Fire Rated Glazing Solutions.Inc.
 - 1. Contact: 1891 Wardrobe Avenue Merced, CA 95341-6406; Telephone 866.848.2667; email info@titanmetalproducts.com; Web site www.titanmetalproducts.com
- B. Manufacturer of Glazing Material: SuperLite®I by SAFTI *FIRST*® Fire Rated Glazing Solutions.
 - 1. Contact: 100 N Hill Drive, Suite 12, Brisbane, CA 94005; Telephone 888.653.3333; Fax 415.824.5900; email info@safti.com; Web site www.safti.com
- C. Substitutions: No substitutions allowed.

2.02 MATERIALS – DOOR

- A. Description: 20 minute full vision aluminum stile and rail door [having ADA compliant bottom rail].
 - 1. Provide with 20 minute (without hose stream test) fire rated label, factory glazed with SuperLite®I. [SuperLite®I with PPG Starphire® Ultra-Clear Low-Iron Tempered Glass and SuperLite®I Pattern Glass available as options.]
- B. Properties:
 - 1. Aluminum: Meeting requirements of ASTM B221, 6063T5 alloy, and as otherwise required to assure compliance with dimensional tolerances and maintain color uniformity.
 - 2. Anchorage Devices, Clips and Fasteners: Manufacturer's standard type, compatible with materials being secured.
 - 3. Accessories: As necessary for complete system.
 - 4. 48" x 108" for single doors and 96" x 108" for pair doors. No intermediate rails required.
 - 5. 5 in. profile width
 - 6. 10 in. ADA compliant bottom rail (can be modified with AHJ approval).
 - 7. 1-3/4 in. door depth.

2.03 MATERIALS – GLASS

- A. Assemblies shall be glazed with SuperLite® I glazing products.
- B. Properties:

1. Fire protective glass up to the max. size tested.
2. Individual Lites shall be identified with a listing mark.
3. Glazing material installed in "Hazardous Locations" (subject to human impact) shall be certified to meet the applicable requirements for fire rated assemblies referenced in ANSI Z97.1 Standard for Safety Glazing Materials Used in Buildings and/or CPSC 16 CFR 1201 Safety Standard for Architectural Glazing Materials.
4. Visible daylight transmission: Varies by glazing type. Refer to SuperLite® I product data for more information.
5. STC rating: Varies by glazing type. Refer to SuperLite® I product data for more information.

2.03 FABRICATION

- A. Door assemblies shall be factory glazed unless specified otherwise.
- B. Door frames shall be furnished knocked down unless specified otherwise.
- C. Door assemblies shall be factory prepared for field mounting of hardware.
- D. Fabrication Dimensions: Fabricate to approved dimensions. The general contractor shall guarantee dimensions within required tolerance. Obtain approved shop drawings prior to fabrication.

2.04 FINISHES

- A. Factory finish extruded door components so that all parts exposed to view upon completion of installation are uniform in finish and color. Exposed surfaces shall be free of scratches and other serious blemishes.
- B. Factory Applied Paint Finish: Comply with AAMA(2603) 603.8 and AA-DAF-45, factory applied baked enamel coating.
 1. Color: (As selected from manufacturer's standard colors) (Custom color to match Architect's sample).
- C. Clear Anodized: AA-M12C22A21, etched, medium matte, clear anodic coating.

2.05 DOOR HARDWARE FOR SINGLE AND PAIR DOORS

- A. Hardware shall be supplied with the fire door. Hardware selection shall be from door manufacturer's standard recommended hardware groups as specified below. Please indicate finish. Custom hardware available - call the manufacturer for more information.

Quantity	Item	Description/Part #	Manufacturer
1	Lockset	9070	Schlage
1	Rim Panic	99L-F	Von Duprin
1	Surface Rod Panic	9927L-F	Von Duprin
3 or 4	Hinge	PBB 4B81 4-1/2 X 4-1/2 626	PBB

1	Closer	4040XP	LCN
1	Autodoor Bottom	412 CPKL	Pemko
1	Smoke Seal	S44D	Pemko

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. Openings shall be plumb, square and within allowable tolerances. The Architect/Engineer shall be notified of any conditions that jeopardize the integrity of the proposed fire wall/door framing system. Do not proceed until such conditions are corrected.

3.03 INSTALLATION

- A. Fire door installation shall be by a licensed contractor and in strict accordance with the approved shop drawings.
- B. Comply with frame and door manufacturer's printed installation instructions and approved shop drawings. Do not attempt installation in areas where wall thickness exceeds tolerances of specified throat size.
- C. Install frames plumb and square, free from warp or twist, securely anchored to substrates with fasteners recommended by frame manufacturer. Maintain dimensional tolerances and alignment with adjacent work. Ensure joints are hairline tight and surfaces flush with adjacent components.
- D. Set all doors in correct locations as shown on the drawings, level, square, plumb and in alignment with other work in accordance with the manufacturer's installation instructions and approved shop drawings.

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. Protect exposed portions of aluminum surfaces from damage by plaster, lime, acid, cement, and other contaminants.

- D. Remove temporary coverings and protection of adjacent work areas.
- E. Remove construction debris from project site and legally dispose of debris.
- F. Protect as required to assure that frames and doors will be without damage until Substantial Completion.

END OF SECTION

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