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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including MasterFormat, SectionFormat, and PageFormat. The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" when editing this section. Section numbers and titles are from MasterFormat 2011 Update.

DIVISION 08 16 13

FIBERGLASS ENTRY DOORS

Specifier Notes: This section covers Therma-Tru® branded fiberglass entry door slabs ("Doors") and other components of the doors system which can be sourced through Therma-Tru®. Consult your local Therma-Tru Architectural Sales Specialist for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiberglass Entry Doors
- B. Impact Resistant Fiberglass Entry Doors
- C. Fire Rated Fiberglass Entry Doors

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section. Verify section numbers and titles.

- A. 06 40 00 - Architectural Woodwork
- B. 07 27 00 – Air Barriers: Water-resistant barrier
- C. 07 92 00 – Joint Sealants: Sealants and caulking
- D. 08 80 00 - Glazing
- E. 08 71 00 – Door Hardware
- F. 09 90 00 - Painting and Coating

1.3 REFERENCES

Specifier Notes: Standards listed by reference including revisions by issuing authority. This article does not require compliance with standards, but is merely a listing of those that may be used.

- A. American Society for Testing and Materials (ASTM):
1. ASTM E 90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
 2. ASTM E 283 – Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
 3. ASTM E 330 – Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 4. ASTM E 331 – Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
 5. ASTM E 413 – Classification for Rating Sound Insulation (STC).
 6. ASTM E 547 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
 7. ASTM E 1300 – Standard Practice for Determining Load Resistance of Glass in Buildings.
 8. ASTM E 1332 – Standard Classification for Determination of Outdoor-Indoor Transmission Class.
 9. ASTM E 1886 – Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missiles and Exposed to Cyclic Pressure Differentials.
 10. ASTM E 1996 – Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
 11. ASTM E 2235 – Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods.
- B. California Reference Standard Code:
1. CA SFM 12-7A-1 – Materials and Construction Methods for Exterior Wildfire Exposure.
- C. Canadian Standard:
1. CAN4-S104 – Standard Method for Fire Tests of Door Assemblies.
- D. Environmental Protection Agency and Department of Energy:
1. Energy Star Program Requirements Product Specification for Residential Windows, Doors, and Skylights.
- E. Code of Federal Regulations:
1. CFR 1201 Part 2 – Safety Standard for Architectural Glazing Materials.
- F. Florida High Velocity Hurricane Zone (HVHZ) Testing Application Standards:
1. TAS 201 – Impact Test Procedures.
 2. TAS 202 – Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure.
 3. TAS 203 – Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.
- G. National Accreditation & Management Institute (NAMI)
- H. National Fenestration Rating Council
1. NFRC 100 – Procedure for Determining Fenestration Product U-Factors.

2. NFRC 200 – Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance (VT) at Normal Incidence.
3. NFRC 400 – Procedure for Determining Fenestration Product Air Leakage.

I. National Fire Protection Association

1. NFPA 252 – Standard Methods of Fire Tests of Door Assemblies

J. Underwriters Laboratory

1. UL 10B – Standard for Fire Testing Door Assemblies.
2. UL 10C – Standard for Positive Pressure Fire Tests of Door Assemblies.

1.4 PERFORMANCE REQUIREMENTS

Specifier Notes: Performance ratings for doors vary by product, configuration, and size. Current performance information is found at www.thermatru.com. Consult your local Therma-Tru Architectural Sales Specialist for more information. Delete the following performance requirements if not required.

- A. Doors shall have a structural design pressure rating of DP [____].
- B. Doors shall have an impact design pressure rating of DP [____].
- C. Door Unit Air Leakage, NFRC 400, 1.57 psf (25 mph): 0.50 cfm per square foot of frame or less.
- D. Door Unit Water Penetration: No water penetration through door unit when tested in accordance with ASTM E 331 or ASTM E 547 with water applied at rate of 5 gallons per hour per square foot at 0 psf.
- E. Doors shall have a minimum STC rating of [____] or a minimum OITC rating of [____].
- F. Doors shall have a positive pressure certified fire door rating of [____] minutes.
- G. Doors shall have a minimum/maximum U-Value of [____] and a minimum/maximum SHGC of [____].
- H. Doors shall qualify for Energy Star Rating.

1.5 SUBMITTALS

- A. Refer to Division 01 33 00 Submittal Procedures [Insert division number and title].
- B. Product Data: Submit door manufacturer current product literature, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, indicating dimensions, construction, component connections, anchorage methods and locations, accessories, hardware locations, and installation details.
- D. Samples: Submit full-size or partial full-size verification sample of door illustrating glazing system, quality of construction, texture, and color of finish.

1.6 QUALITY ASSURANCE

- A. Mockup:
 - 1. Provide sample unit of representative product size and using manufacturer approved installation methods to determine acceptability of door installation methods. Comply with Division 01 43 39 Quality Assurance
 - 2. Approved mockup shall represent minimum quality required for the Work.
 - 3. Approved mockup shall [not] remain in place within the Work.
- C. Quality Assurance Submittals:
 - 1. Provide documentation for specified performance as required.
 - 2. Manufacturers' installation instructions.
- D. Manufacturer Qualifications: Manufacturer shall have successful experience in producing the type of product required for project applications equivalent to the requirements for this project.

Specifier notes: Therma-Tru manufactures fiberglass door slabs and related components and sources them to distributor and dealer fabricators for system assembly. Fabricators will have successful experience in producing the type of product required equivalent to the project requirements.

- E. Installer Qualifications:
 - 1. [Optional: Installer holds current credential as a NAMI Certified Installer of Therma-Tru Side Hinged Door Installations and as a Therma-Tru® Certified Installer.]

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Division 01 60 00 Product Requirements.
- B. Delivery: Deliver materials to site undamaged with labels clearly identifying manufacturer, product name, and installation instructions
- C. Storage: Store materials in an upright position, off ground, under cover, and protected from weather, direct sunlight, and construction activities.
- D. Handling: protect materials and finish during handling and installation to prevent damage.

1.8 WARRANTY

- A. Refer to Division 01 78 36 Warranties
- B. Therma-Tru® standard limited warranty for fiberglass Therma-Tru® Door Product and genuine Therma-Tru® components, including rot-resistant frames, mullions, and brickmould sourced from Therma-Tru (excluding primed pine door frames and oak door

frames, and non-rot resistant mullions and brickmould) used in commercial and multi-residential projects will be free from material and workmanship defects for a period of three years subject to certain limitations and restrictions. For complete details and current warranty information go to www.thermatru.com.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Basis of design:
Therma-Tru Corp.
1750 Indian Wood Circle
Maumee, OH 43537
(419) 891-7400
(800) 843-7628
www.thermatru.com
Contact:
Rod Clark
458-206-8532
rclark@thermatru.com
- B. Substitutions: Not permitted
- C. Requests for substitutions will be considered in accordance with provisions of Division 01 60 00.

2.2 FIBERGLASS ENTRY DOORS

- A. Fiberglass Entry Doors: All fiberglass doors manufactured by Therma-Tru®. Specification is for complete entry systems with components manufactured by Therma-Tru® and assembled by independent fabricators.
 - 1. Select [Classic -Craft®], [Fiber-Classic®], [Smooth-Star®], [20 Min Fire Door]
 - 2. Construction:
 - a. Classic-Craft®
3/32" minimum thickness proprietary fiberglass reinforced thermoset composite, "AccuGrain" textured to duplicate hand-crafted hardwood master or smooth surface. Door edges are machinable kiln-dried hardwood, flush and square with door faces, lock edge reinforced with full-length integrated 3-1/2-inch wide engineered lumber core. Door bottom edge is moisture- and decay-resistant composite. Core is foamed-in-place polyurethane, with a minimum density of 1.9 pcf.
 - b. Fiber-Classic®
1/16-inch minimum thickness, proprietary fiberglass-reinforced thermoset composite, wood-grained in natural hardwood patterns, stainable and paintable.

Door edges are machinable kiln-dried pine, primed, lock edge reinforced with engineered lumber core, lockset area reinforced with solid blocking for hardware backup. Door bottom edge is moisture- and decay-resistant composite. Core is foamed-in-place polyurethane, density 1.9 pcf minimum.

- c. Smooth Star®
1/16-inch minimum thickness, proprietary fiberglass-reinforced thermoset composite, surface lightly textured. Door edges are machinable kiln-dried pine, primed, lock edge reinforced with engineered lumber core, lockset area reinforced with solid blocking for hardware backup. Door bottom edge is moisture- and decay-resistant composite. Core is foamed-in-place polyurethane, density 1.9 pcf minimum.

3. Door Style

a. Classic-Craft®

- 1. American Collection: Enter Style Number [].
- 2. Mahogany Collection: Enter Style Number [].
- 3. Rustic Collection: Enter Style Number [].
- 4. Oak Collection: Enter Style Number [].
- 5. Canvas Collection: Enter Style Number [].

b. Fiber-Classic®

- 1. Mahogany Collection: Enter Style Number [].
- 2. Oak Collection: Enter Style Number []

c. Smooth-Star®

- 1. Enter Style Number [].

- B. Frames: Provided and assembled by third party fabricators to exacting specifications from Therma-Tru to help maximize system performance. Therma-Tru® strongly recommends the use of rot-resistant frames, mullions, and brickmould sourced from Therma-Tru, however, the use of a non Therma-Tru® frame system (or a Therma-Tru Primed Pine Frame or Therma-Tru Oak Frame) will not automatically void the entire limited warranty. Refer to 1.8.B for clarification.

- 1. Milled from 5/4 kiln-dried material with profiled ½” stop and 6 degree sill gain prep.
- 2. Jamb Width [Standard 4 9/16”] Optional: [5 ¼”] [6 9/16”]
- 3. Rot Resistant – frames, mullions, and brickmould sourced through Therma-Tru.

C. Sills

- 1. Inswing: [Composite Adjustable] [Hardwood Adjustable] [Basic Fixed] [Basic Composite Adjustable] [Moderate Climate]
- 2. Outswing: [Composite Outswing] [Aluminum with Thermal Break] [Aluminum No Thermal Break][Coastal]
- 3. Other:[Public Access Sill]
- 4. Finish: [Mill] [Bronze] [Brass] [Satin nickel]

2.3 HARDWARE

Specifier Notes: Fiberglass entry doors are available with optional Therma-Tru factory installed multi-point lock; prepped for standard locking hardware; or no bore.

- A. Hinges: Steel, [optional ball bearing] 4 x 4 x 0.098 inches finished to match hardware, plated screws to match
1. Finish: [US4, Zinc dichromate] [US3, bright brass] [US5, antique brass] [US15, brushed nickel] [US17A, black nickel] [US15A, antique nickel] [US26, polished chrome] [US10B, oil rubbed bronze] [US32D stainless steel]

Specifier Notes: Multi-point locking system is optional. Delete if not required.

- B. Locking Hardware:
1. Multi-point lock system includes stainless steel face plate.
 2. Multi-point lock system handle set hardware: [Heirloom] [Venture] [Millennium] [Ara] [Decade]
 3. Finish: [US3, bright brass] [US5, antique brass] [US15, brushed nickel] [US17A, black nickel] [US15A, antique nickel] [US26, polished chrome] [US10B, oil rubbed bronze] [BY, white]

Specifier Notes: Decorative and specialty glass is standard and included with the select model numbers.

2.4 GLAZING

1. Therma-Tru factory glazed with [double-pane] or [triple-pane] construction.
2. [Decorative] [Specialty] designated by door model number.
3. Privacy glass: [Chord] [Rain] [Chinchilla] [Granite]

2.5 INSTALLATION ACCESSORIES

- A. Sill pan
- B. Corner seal pad
- C. Rain deflector
- D. Rain Guard

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive doors. Notify Architect in writing any unacceptable conditions that would adversely affect installation or subsequent performance of the product. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install fiberglass doors in full compliance with Therma-Tru® written instructions and approved shop drawings.
- B. Install 20 minute doors with permanent fire door certification label in compliance with the requirements of the labeling agency and NFPA.
- C. Maintain alignment and compatibility with adjacent work.

3.3 FINISHING

- A. Finish in compliance with Therma-Tru® written recommendations. Guidance for proper finishing is available at www.thermatru.com – “Recommendations for Proper Finishing and Painting or Staining.”

3.3 Protection

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products prior to Substantial Completion in accordance with Therma-Tru written recommendations. Guidance for proper finishing is available at www.thermatru.com – “Recommendations for Proper Finishing and Painting or Staining.”

END OF SECTION