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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*, as described in *The CSI Construction Specifications Practice Guide*.

This 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" after editing this section.

Section numbers and titles are from *MasterFormat 2012 Update*.

SECTION 06 00 00

EXTERIOR TREATED WOOD COMPOSITE TRIM

Specifier Notes: This section covers JELD-WEN, inc. "MiraTEC" exterior treated wood composite trim.

MiraTEC trim is an engineered, exterior treated wood composite trim product for non-structural applications. MiraTEC trim is factory-primed on four sides with a low VOC primer containing a mildewcide. It is reversible with a clear cedar wood-grain texture on one side and smooth texture on the other. The product needs to be finish painted for the 50-year warranty to be valid.

Consult JELD-WEN, inc. for assistance in editing this section for the specific application.

Specifier Notes: MiraTEC trim is a green product.

Sustainable Materials: No old growth wood is used in the manufacture of MiraTEC trim. It is made from wood that is of no commercial timber value and is the byproduct of other operations. This leftover wood is also detrimental to the overall vitality of the forest. All wood comes from an area within a 200-mile radius of the Towanda, PA production facility. The facility uses 100% northern hardwoods, which includes maple, beech, oak, and other species. MiraTEC trim is treated with zinc borate, an EPA-registered biocide and a naturally occurring earth chemical that is environmentally safe and ensures protection against termites.

No Added Urea Formaldehyde: MiraTEC trim has no added urea formaldehyde. This is certified by Scientific Certification Systems under certificate number SCS-NAUF-01802. Through repeated testing by the Composite Panel Association (CPA), MiraTEC trim has demonstrated formaldehyde emissions equivalent to background levels found in the environment.

Complies with CARB: MiraTEC trim is acknowledged by the California Air Resources Board's (CARB) Airborne Toxic Control Measure (ATCM) 93120 to utilize exempt status ultra-low emitting formaldehyde (ULEF) resins.

Low VOC Primer: MiraTEC trim is factory-primed on four sides with a low VOC primer containing a mildewcide.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Exterior-grade, treated wood composite trim for non-structural applications.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

- A. Section 06 22 00 – Millwork.
- B. Section 06 40 00 – Architectural Woodwork.
- C. Section 06 44 00 – Ornamental Woodwork.
- D. Section 06 46 29 – Wood Fasciae and Soffits.
- E. Section 07 46 00 – Siding.
- F. Section 10 14 00 – Signage.
- G. Section 10 55 16 – Mail Collection Boxes.

- H. Section 10 55 23 – Mail Boxes.
- I. Section 10 71 13.26 – Decorative Exterior Shutters.

1.3 REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this section, complete with designations and titles.

- A. ASTM C 920 – Standard Specification for Elastomeric Joint Sealants.
- B. ASTM D 1037 – Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
- C. AWWA E7 – Standard Method of Evaluating Wood Preservatives by Field Tests with Stakes.
- D. AWWA E16 – Field Test for Evaluation of Wood Preservatives to be Used Out of Ground Contact: Horizontal Lap-Joint Method.
- E. ANSI/UL 723 (ASTM E84-01) – Standard Test Method for Surface Burning Characteristics of Building Materials.

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer’s product data, including installation instructions.
- C. Samples: Submit manufacturer’s sample of composite trim.
 - 1. Sample Size: Minimum 5 inches by 5 inches.
- D. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty Documentation: Submit manufacturer’s standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer’s Qualifications: Manufacturer regularly engaged, for past 10 years, in manufacture of composite trim of similar type to that specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 - 3. Store composite trim under cover, protected from weather, off ground, and on flat surface.
 - 4. Keep composite trim dry.
 - 5. Protect materials during storage, handling, and installation to prevent damage.

1.7 WARRANTY

- A. Warranty Period:
 - 1. Composite Trim Material: 50 years.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: JELD-WEN, inc., 825 Shiner Road, PO Box 311, Towanda, Pennsylvania 18848. Toll Free 800-255-0785. Website www.miratectrim.com. E-mail miratec@jeld-wen.com.

2.2 EXTERIOR TREATED WOOD COMPOSITE TRIM

- A. Composite Trim: "MiraTEC" exterior treated wood composite trim.
 - 1. Description: Exterior-grade, treated wood composite trim for non-structural applications.
 - 2. Compliance: ICC-ES Evaluation Report ESR-3043.
 - 3. Material:
 - a. Wood fibers combined with phenolic resins, zinc borate, and water repellent.
 - b. No added urea formaldehyde.
 - 4. Surface:
 - a. Clear cedar wood grain texture on 1 side, smooth surface on other side.
 - b. Factory-primed on 4 sides with low VOC primer containing mildewcide.
 - 5. Substrate:
 - a. 1-piece solid substrate, uniform density, not laminated.
 - b. No knots or voids.

Specifier Notes: Specify thickness of the composite trim boards.

MiraTEC trim is available in nine nominal board widths: 3", 4", 5", 6", 8", 10", 12", 16", and 2" MiraTEC batten.

- 6. Thickness: [5/8-inch actual] [4/4 (3/4-inch actual)] [5/4 (1-inch actual)] [Indicated on the Drawings].

- B. Typical Properties, 4/4 Thickness:
 - 1. Density, ASTM D 1037: 47.6 pcf.
 - 2. Modulus of Rupture, ASTM D 1037: 2,860 psi.
 - 3. 24-Hour Soak, ASTM D 1037:
 - a. Water Absorption: 6.6 percent.

- b. Thickness Swell: 2.8 percent.
- 4. Accelerated Aging Test, 6-Cycle, ASTM D 1037: Retained 90 percent of original strength.
- 5. Termite Resistance and Decay, AWPA E7 Rating Scale, 3-Year Exposure: 7.8 out of 10.
- 6. Rot Resistance, AWPA E16: 1.0 out of 5.
- 7. ANSI/UL 723 (ASTM E84-01):
 - a. Flame Spread: 125.
 - b. Smoke Developed: 110.

2.3 ACCESSORIES

Specifier Notes: Consult JELD-WEN, inc. for information regarding the adhesives tested with MiraTEC composite trim. The end user of MiraTEC composite trim should contact the adhesive manufacturer for information on suitable adhesives for the specific application.

- A. Adhesives: Designed for use on wood composite materials.
- B. Fasteners:
 - 1. Nails appropriate to style of construction and as specified.
 - 2. Equal or better in performance (such as nail withdrawal, bending strength, and corrosion resistance) to 6d or 8d 15-gauge finish nails or headed nails.
 - 3. Long enough to penetrate 1-1/4 inches into structural wood studs or studs and structural sheathing material.

Specifier Notes: For installations near oceans, large bodies of water, or in high-humidity climates, JELD-WEN, inc. recommends using stainless steel fasteners on MiraTEC composite trim. For these installations, do not use electro-galvanized fasteners, due to poor long-term rust resistance.

- 4. [Corrosive resistance equivalent to hot-dipped galvanized nails] [Stainless steel].
- 5. Fasteners Not Acceptable:
 - a. Staples.
 - b. Brads.
 - c. T-nails.
- C. Joint Sealants:
 - 1. Exterior quality sealants that remain flexible over time.
 - 2. ASTM C 920.
 - 3. Specified in Section 07 92 00.
 - 4. Not Acceptable: Hard-setting caulk or Bondo.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas and surfaces to receive composite trim.
- B. Notify Architect of conditions that would adversely affect installation.

- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install composite trim in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install composite trim plumb, level, and square.
- C. Cut composite trim in accordance with manufacturer's instructions.
- D. Fastening:
 - 1. Fasten composite trim in accordance with manufacturer's instructions.
 - 2. Set nails a minimum of 1/2 inch from edge.
 - 3. Do not nail into edges.
 - 4. Set nails flush or slightly countersunk not more than 1/8 inch.
 - 5. Apply spackling putty. Reapply putty as needed for desired appearance.
 - 6. 4/4 and 5/4 Fascia and Soffit Applications: Fasten directly to rafter ends, double nail a minimum of 24 inches on center.
 - 7. 5/8-Inch Fascia and Soffit Applications: Include trim sub-fascia and nail 16 inches on center to rafter ends or sub-fascia.
 - 8. All Other Horizontal and Vertical Applications: Double nail 16 inches on center, falling on studs.
 - 9. Fasten trim from one end to the other.
 - 10. Do not nail towards the center from both ends.
 - 11. Use adhesives in accordance with adhesive manufacturer's instructions.
- E. Butt Joints:
 - 1. Ensure joints fall over framing members.
 - 2. Miter, scarf, or bevel composite trim as required.
 - 3. Runs Less than 30 Feet in Length: Install butt joints to lightly touch.
 - 4. Runs Over 30 Feet in Length: Space butt and scarf joints 1/8 inch apart and apply joint sealants into full depth of 1/8-inch joint.
 - 5. Double nail on both sides of joint, a minimum of 1/2 inch from edge.
- F. Flashing and Moisture Control:
 - 1. Do not apply composite trim to wet sheathing.
 - 2. Do not apply composite trim closer than 6 inches to finished grade or final landscaping.
 - 3. Do not allow composite trim to stand in water.
 - 4. Do not allow direct contact of composite trim with masonry or concrete.
 - 5. Do not allow water to stand on or leak behind composite trim.
 - 6. Properly flash and space composite trim a minimum of 1/2 inch from concrete flatwork or horizontal brick ledge.
 - 7. Separate composite trim at foundations or brick veneer from masonry by metal flashing, polyethylene film, 30-lb. felt, or 1/4-inch to 1/2-inch air space using masonry standoffs.
 - 8. Horizontal Applications including Window and Door Headers: Flash in accordance with siding manufacturer's, window manufacturer's, or door manufacturer's instructions.
 - 9. Maintain a minimum angle of 100 degrees from vertical to provide positive drainage.

G. Joint Sealants: Apply joint sealants at butt joints and where composite trim abuts siding, windows, doors, or other materials.

H. Paint Application:

1. Prime and paint exposed field-cut edges of composite trim using high-quality exterior oil/alkyd solvent-based or acrylic-latex primer recommended by paint manufacturer for application over composite wood substrates.
2. Coat exposed surfaces including bottom edge.
3. Finish composite trim with 2 coats of paint within 90 days after installation.
4. If material is not painted within 90 days, reprime composite trim using exterior primer recommended for use on composite wood products and is compatible with topcoat to be used.
5. Use same primer for repair of damage to original factory-applied primer.
6. Apply total field-applied dry film paint thickness of a minimum of 2-1/2 mils on composite trim.

3.3 PROTECTION

A. Protect installed composite trim to ensure that, except for normal weathering, trim will be without damage or deterioration at time of Substantial Completion.

END OF SECTION