



COMPOSITE CLADDING

SECTION 07 46 00 SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Siding Panels.

1.2 RELATED SECTION

- A. Rough Carpentry; Framing and Wall Sheathing.

1.3 REFERENCES

- A. ASTM D635-18: Standard Test Methods for Rate of Burning and/or Extent and Time of Burning of Plastics in Horizontal Position.
- B. ASTM E84-18: Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM E119-19: Standard Test Method for Fire Tests of Building Construction and Materials.
- D. NFPA 268: Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
- E. ASTM D1929-16: Standard Test Method for Determining Ignition Temperature of Plastics.
- F. ASTM D696-16: Standard Test Method for Coefficient of Linear Dimension Changes of Plastics.
- G. ASTM D4226-16: Standard Test Methods for Impact Resistance or Rigid Poly (Vinyl Chloride) (PVC) Building Products.
- H. ASTM D3679-17: Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding.
- I. ASTM C1363-11: Standard Test Method for Thermal Performance of Building Material and Envelope Assemblies by Means of a Hot Box Apparatus.
- J. ASTM G155-13: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
- K. ASTM D5206-13: Standard Test Method for Windload Resistance of Rigid Plastic Siding.
- L. ASTM D3345-17: Standard Test Method for Laboratory Evaluation of Solid Wood for Resistance to Termites.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Manufacturer's installation instructions.
- C. Regulatory Requirements:
 - 1. Intertek Code Compliance Research Report #0316
 - 2. ICC-ES Evaluation Report, ESR-4449
 - 3. Florida Product Approval #31747

1.5 QUALITY ASSURANCE

- A. Manufacturer: Maintain rigorous production quality control standards to ensure that siding will perform as expected for its intended use.
- B. Regulatory Requirements:
 - 1. Intertek Code Compliance Research Report #0316
 - 2. ICC-ES Evaluation Report, ESR-4449
 - 3. Florida Product Approval #31747

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Refer to manufacturer's installation instructions for storage and handling.

1.7 WARRANTY

- A. Upon completion, provide a written transferable, lifetime limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Associated Materials Incorporated, located at 3773 State Road, Cuyahoga Falls, OH 44223; Toll-Free Tel: 800-922-6009.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 MATERIALS

- A. Siding - General Requirements: Produced from glass fiber-reinforced polymer and graphite-infused polystyrene foam.
 - 1. Fire Properties:
 - a. Average Time of Burning: No self-sustained burn, Pass when tested in accordance with ASTM D635-18.
 - b. Average Extent of Burning: No self-sustained burn, Pass when tested in accordance with ASTM D635-18.
 - c. Flame Spread Index: Less than or equal to 25, when tested in accordance with ASTM E84-18b.
 - d. Smoke Developed Index: Less than or equal to 450, when tested in accordance with ASTM E84-18b.
 - e. ALIGN may be used in ASTM E119 fire resistance rated assemblies.

- f. ALIGN approved for use as specified in section 1406 of the International Building Code as tested to NFPA 268.
 - g. Ignition Temperature: When tested in accordance with ASTM D1929, no self ignition and no flaming; no smoldering at less than 770°F (410°C).
2. Typical ALIGN Siding Properties:
- a. Camber: < 1/8" (3.18 mm) per ASTM D3679.
 - b. Heat Shrinkage: 0.2 % per ASTM D3679.
 - c. Impact Resistance: 57 inch lbs. per ASTM D4226, Procedure A.
 - d. Weatherability: No surface or structural defects such as peeling, cracking, or chipping when tested per ASTM G155-13.
 - e. Color: Spectrophotometer controlled, exceeding ASTM requirement of DE 1.5.
 - f. Coefficient of Linear Expansion: 2.3 by 10⁻⁵ in/in °F, per ASTM D696.
 - g. Gloss: Garner Gloss meter controlled.
 - h. Surface Distortion: Exceeds 165°F (40.5°C), per ASTM D3679.
 - i. R-value: 2.0, per ASTM C1363-11.
 - j. Wind Resistance: 53 psf (180 mph/290 km/h) per ASTM D5206-13. Exposure B, 30 ft. (9144 mm) mean roof height, Safety Factor 1.5, PEF .5.
 - k. Termite Resistance: Conclusion that ALIGN met the conditions for complete resistance to the termite attack when tested to ASTM D3345.
3. Interlock: Post-form style stack lock with positive interlock; both ends of panels factory cut and notched for overlap.
4. Nail Slots: Elongated 1-inch (25 mm) slots spaced approximately 1/2 inch (6 mm) apart in nailing hem to allow for expansion and contraction.

2.3 SIDING

- A. Horizontal Siding: ALIGN 7" Clapboard:
- a. Panel Thickness: 3/4" (19 mm)
 - b. Panel Projection: 3/4" (19 mm)
 - c. Panel Length: 12'3" (3733.8 mm)
 - d. Exposure: 7" (177.8 mm)
 - e. Finish: Low Gloss, Cedar Grain
 - f. Interlock: Stack Lock

PART 3 EXECUTION

3.1 EXAMINATION

- A. Confirm that all critical dimensions are as specified on the drawings.
- B. Beginning installation indicates Installer's acceptance of substrate as suitable to accept siding.

3.2 PREPARATION

- A. Repair substrate flaws or defects before applying siding or soffits.
- B. Where necessary, fur surfaces to an even plane and free from obstructions before application.

3.3 INSTALLATION

- A. Install siding in accordance with manufacturer's installation instructions.
- B. Install siding and accessories in accordance with best practice, with all joint members plumb and true.

3.4 FIELD QUALITY CONTROL

- A. After installation of siding, check entire surface for obvious flaws or defects.
- B. Replace and repair any problem areas, paying close attention to the substrate for causes of the problem.

3.5 CLEANING

- A. After application of siding, clean as necessary to remove all fingerprints and soiled areas.
- B. Upon completion of siding application, clean entire area, removing all scrap, packaging, and unused materials related to this work.

END OF SECTION