SECTION 06670

PVC FABRICATIONS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

A. Cellular PVC Trim Boards for corner boards, soffits, fascias, battens, door pilasters, frieze boards, rake boards, architectural millwork and door/window trim.

1.2 RELATED SECTIONS

A. Section 06445 - Simulated Wood Ornaments: Fluted Pilasters, Columns.

B. Section 06455 - Simulated Wood Trim: Standing and Running Trim.

C. Section 07460 - Plastic Siding: Composite material used on exterior wall or soffit.

1.3 REFERENCES

A. ASTM D792 - Density and Specific Gravity of Plastics by Displacement.

B. ASTM D570 - Water Absorption of Plastics.

C. ASTM D638 - Tensile Properties of Plastics.

D. ASTM D790 - Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

E. ASTM D1761 - Mechanical Fasteners in Wood.

F. ASTM D5420 - Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by means of a Striker Impacted by a Falling Weight.

G. ASTM D256 - Determining the Pendulum Impact Resistance of Plastics.

H. ASTM D696 - Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer.

I. ASTM D635 - Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.

J. ASTM E84 - Surface Burning Characteristics of Building Materials.

K. ASTM D648 - Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.

L. ASTM D3679 - Standard Specification for Rigid Poly Vinyl Chloride (PVC) Siding.

1.4 SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B. Product Data: Submit product data, manufacturer's catalogs, SPEC-DATA® product Sheet, for specified products.

C. Samples: Submit three material samples representative of the texture, thickness and widths shown and specified herein.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Check with Local Building Code for installation requirements.

B. Allowable Tolerances:

1. Variation in component length: -0.00 / +1.00"

2. Variation in component width: ± 1/16"

3. Variation in component thickness: ± 1/16"

4. Variation in component edge cut: ± 2°

5. Variation in Density -0% + 10%

C. Workmanship, Finish, and Appearance:

1. Cellular PVC that is homogeneous and free of voids, holes, cracks, and foreign inclusions and other defects. Edges must be square, and top and bottom surfaces shall be flat with no convex or concave deviation.

2. Uniform surface free from cupping, warping, and twisting.

1.6 DELIVERY, STORAGE AND HANDLING

A. Trim materials should be stored on a flat and level surface on a full shipping pallet. Handle materials to prevent damage to product edges and corners. Store materials under a protective covering to prevent jobsite dirt and residue from collecting on the boards.

1.7 WARRANTY

A. Provide manufacturer's 25 year warranty against defects in manufacturing that cause the products to rot, corrode, delaminate, or excessively swell from moisture.

2 PART 2 PRODUCTS

2.1 MATERIALS

A. Acceptable products: AZEK™ Trimboards manufactured by Vycom Corporation, 801 Corey Street, Moosic, PA 18507.

B. Material: Expanded rigid poly vinyl chloride material with a small-cell microstructure and density of .55 grams/cm³.

1. Material shall have a minimum physical and performance properties specified in the following Section C.

C. Performance and physical characteristic requirements:

Property	Units	Value	ASTM Method
PHYSICAL			
Density	g/cm3	0.55	D 792
Water Absorption	%	0.15	D 570
MECHANICAL			
Tensile Strength	psi	2256	D 638
Tensile Modulus	psi	144,000	D 638
Flexural Strength	psi	3329	D 790
Flexural Modulus	psi	144,219	D 790
Nail Hold	Lbf/in of penetration	35	D 1761
Screw Hold	Lbf/in of penetration	680	D 1761
Staple Hold	Lbf/in of penetration	180	D 1761
Gardner Impact	in-lbs	103	D5420
Charpy Impact (@23°C)	ft-lbs	4.5	D256
THERMAL			
Coefficent of Linear Expansion	in/in/°F	3.2 x 10-5	D 696
Burning Rate	in.min	Not burn with flame removed	D 635
Flame Speed Index	--	20	E 84
Heat Deflection Temp 264 psi	°F	150	D648
Oil Canning (@140°F)	°F	Passed	D 648

2.2 ACCESSORY PRODUCTS

A. Fasteners: All types of fasteners that work well with wood will work as well or better with AZEK™. Provide white-painted full round head stainless-steal fasteners. Fasteners from a nail gun work well.

B. Adhesives:

1. Bonding AZEK™ to AZEK™, solvent based adhesive systems used for rigid PVC pipe work very well. Latex adhesives provide more working time.

2. Bonding AZEK™ to Various Substrates, numerous standard construction adhesives work well. In general, contact cement, epoxy, rubber based and urethane adhesives are acceptable. Test a particular adhesive for suitability.

C. Sealants:

1. Use urethane, polyurethane or acrylic based sealants without silicone.

2.3 FINISHES

A. Preparation:

1. Clean, Dry surface

2. Nail holes may be finished with a poly urethane or acrylic based caulk, or painted over.

3 PART 3 EXECUTION

3.1 INSTALLATION

A. Manufacturers instructions: Comply with manufacturers product catalog installation instructions and product technical bulletin instructions.

B. Cutting: Sheets and boards can be cut using standard saws and carbide blades used for wood.

C. Drilling: Drilling can be accomplished using twist drills recommended for metals.

D. Milling: Milling can be accomplished using standard milling machines of various types. Relief Angle 20° to 30°; Cutting speed to be optimized with the number of knives and feed rate.

E. Routing: Routing can be accomplished using standard carbide tipped routers used in woodworking.

F. Edge Finishing: Various sanding, grinding or filing tools. Do not allow excessive frictional heat to build up.

G. Nail Location: Standard nailing patterns are recommended. You can fasten closer to the edge than with wood.

H. Linear Thermal Expansion and Contraction: When properly fastened, allow for 1/8” movement for each 18’ board. When butting boards together it is recommended that the butt joint is glued with PVC cement. This will eliminate any separation at the joint. The gap can be accommodated at the ends of the run.

…END OF SECTION