

SECTION 06 60 00  
PLASTIC FABRICATIONS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Cellular PVC Trim Boards for architectural millwork and window trim.

1.2 RELATED SECTIONS

- A. N/A

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:  $\pm 1/16$ "
  - 3. Variation in component thickness:  $\pm 1/16$ "
  - 4. Variation in component edge cut:  $\pm 2^\circ$
  - 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: Versatex® Trimboards manufactured by Wolfpac Technologies, Inc., 111 Leetsdale Industrial Drive, Unit 101, Leetsdale, PA, or equal.
- B. Material: Expanded rigid poly vinyl chloride material with a small-cell microstructure and density of .55 grams/cm<sup>3</sup>.
  - 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
<b>PHYSICAL</b>			
Density	g/cm <sup>3</sup>	0.55	D 792
Water Absorption	%	<0.70	D 570
<b>MECHANICAL</b>			
Tensile Strength	psi	1889	D 638
Tensile Modulus	psi	107,000	D 638
Flexural Strength	psi	4019	D 790
Flexural Modulus	psi	164,200	D 790
Nail Hold	Lbf/in of penetration	108	D 1761
Screw Hold	Lbf/in of penetration	442	D 1761
Staple Hold	Lbf/in of penetration	69	D 1761
Gardner Impact	in-lbs	98	D5420
Notched Izod Impact	ft-lbs/inch	0.250	D256
<b>THERMAL</b>			
Coefficient of Linear Expansion	in/in/°F	3.25 x 10 <sup>-5</sup>	D 696
Burning Rate	In/min	Failed to Ignite	D 635
Flame Spread Index	--	25	E 84
Heat Deflection Temp (264 psi)	°F	153	D648
Oil Canning(@140°F)	°F	Passed	D 648

## 2.2 ACCESSORY PRODUCTS

- A. Fasteners: Use only stainless steel fasteners recommended by manufacturer.
1. Install fasteners in accordance with manufacturer's recommendations.
  2. Do not use staples, small brads, wire nails, fine threaded wood screws and ring-shank fasteners.
- B. Adhesives:
1. Bonding Versatex to Itself: Bond joints with PVC cement or cellular PVC adhesives approved by manufacturer.
  2. Bonding Versatex to Various Substrates: Bond with construction adhesives recommended by manufacturer.
  3. Use scarf joint cuts in running trim.
  4. Secure bonded joints with fasteners on each side of joint.

- C. Sealants:
  - 1. Use urethane, polyurethane or acrylic based sealants that do not contain silicone.

## 2.3 FINISHES

- A. Preparation:
  - 1. Clean, Dry surface
  - 2. Finish nail holes with a polyurethane or acrylic based caulk.
  - 3. For painted surfaces, use only 100% acrylic latex paint system.

## 3 PART 3 EXECUTION

### 3.1 INSTALLATION

- A. Manufacturers instructions: Comply with manufacturer's product catalog installation instructions and product technical bulletin instructions.
- B. Cutting: Cut sheets and boards with standard saws and carbide tipped blades used for wood. Do not use fine tooth metal cutting blades.
- C. Drilling: Drill using standard woodworking drill bits. Do not use drill bits made for rigid PVC.
- D. Milling: Mill with standard woodworking milling or moulding machines of various types. Relief Angle 20° to 30°; Cutting speed to be optimized with the number of knives and feed rate.
- E. Routing: Rout with 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. Use two fasteners at each framing member for trimboard applications. Use additional fasteners for trimboards wider than 10 inches and sheet. Install fasteners no more than two inches from the end of boards.
- H. Linear Thermal Expansion and Contraction: When properly fastened, allow for 3/16" 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 06 60 00