Inteplast→ Trim Free Foam

SECTION 06 60 00

PLASTIC FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Inteplast- Trim Free Foam cellular PVC boards used for corner boards, soffits, fascias, battens, door pilasters, frieze boards, rake boards, architectural millwork and door/window trim.

1.02 RELATED SECTIONS

A. Section 06 64 00 - Plastic Paneling.
B. Section 06 65 00 - Plastic Simulated Wood Trim.
C. Section 06 66 00 - Custom Ornamental Simulated Woodwork.

1.03 REFERENCES

A. AATC 127-1985 – Hydrostatic Head Leakage Test.
B. ASTM C177 – Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
C. ASTM D256 – Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
D. ASTM D570 – Standard Test Method for Water Absorption of Plastics.
E. ASTM D635 – Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
F. ASTM D648 – Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
G. ASTM D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between −30°C and 30°C with a Vitreous Silica Dilatometer.
H. ASTM D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
I. ASTM D792 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
J. ASTM D1761 – Standard Test Methods for Mechanical Fasteners in Wood.
K. ASTM D3345 – Standard Test Method for Laboratory Evaluation of Wood and Other Cellulosic Materials for Resistance to Termites.
L. ASTM D5420 – Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).
M. ASTM D6662 – Standard Specification for Polyolefin-Based Plastic Lumber Decking Boards.
N. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
O. ASTM E330 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
P. ASTM G155 – Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
Q. AWPA E12 – Corrosion of Materials on Contact with Treated Wood.

1.04 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, manufacture's catalog, technical bulletins, for specified products.
C. Samples: Submit three material samples representative of the texture, thickness and widths shown andspecified herein.

1.05 QUALITY ASSURANCE

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

1. Variation in component length: -0.0 / +7/8"
2. Variation in component width: -0.0 / +1/16"
3. Variation in component thickness: ± 5%
4. Variation in component edge cut: ± 2°
5. Variation in Density: ± 5%

C. Workmanship, Finish, and Appearance:

1. Inteplast® Trim Free Foam cellular PVC board 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.

1.06 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 job site dirt and residue from collecting on the boards.

1.07 WARRANTY

A. Inteplast® Trim is backed by a lifetime limited warranty for single-family residential purchases and applications against rot, delaminate, splinter, crack, split, excessively swell, or suffer structural damage from termites or fungal decay. For all other purchases and applications, including commercial use, condominiums and multi-family dwellings, this warranty shall be limited to a period of twenty (20) years.

PART II PRODUCTS

2.01 MATERIALS

A. Acceptable products: Inteplast® Trim Free Foam manufactured by Inteplast Group Ltd., 101 Inteplast Blvd., Lolita, TX 77971.
B. Material: Free foam cellular PVC material with a small-cell microstructure and density of 0.57 grams/cm3.

1. Material shall have typical physical and performance properties specified in Section C on the following page.

C. Performance and physical characteristic requirements:

Property	Test Method	Value
Density, g/cm3	ASTM D792	0.60
Flexural Strength, psi	ASTM D790	3,600
Flexural Modulus, psi	ASTM D790	144,000
Weathering	ASTM G155 & ASTM D790	
Flexural Strength (Change), %		+2.4
Flexural Modulus (Change), %		+0.7
Freeze-Thaw	ASTM D6662 & ASTM D790	
Flexural Strength (Change), %		+0.1
Flexural Modulus (Change), %		+0.9
Water Resistance	AATCC 127	No Penetration
Water Absorption, 24 hrs, %	ASTM D570	< 0.3
Termite Resistance	ASTM D3345	9.2
Surface Burning, Flame Spread Index	ASTM E84	25.0
Burning Rate	ASTM D635	No burn when flame removed
Mechanical Fastener, Allowable Load, lbf	ASTM D1761	151 (8d nail and 1" thick trim)
Negative Transverse Wind Load, psf	ASTM E330	72.0
Gardener Impact Resistance, in-lbf	ASTM D5420	629 (3/4" thick trim)
Coefficient of Linear Thermal Expansion, $^{o}C^{-1}$	ASTM D696	6.27 E-5
Heat Deflection Temp., ^{o}F @ 264 psi	ASTM D648	146
Corrosion by Preservative-Treated Wood	AWAP E12	No Wt. Loss
Izod, ft-lb/in	ASTM D256	0.37
Heat Conductivity, Btu-in/hr-ft2-^{o}F	ASTM C177	0.5

2.02 ACCESSORY PRODUCTS

A. Fasteners:

1. Use fasteners designed for wood trim and wood siding (thinner shank, blunt point, full round head) with Inteplast- Trim Free Foam.
2. Use a highly durable fastener such as stainless steel or hot-dipped galvanized.
3. Staples, small brads and wire nails must not be used as fastening members.
4. The fasteners should be long enough to penetrate the solid wood substrate a minimum of 1-3/8”.
5. Standard nail guns work well with Inteplast- Trim Free Foam.
6. Use 2 fasteners per every framing member for trim boards applications. Trim boards of 12” or wider, as well as sheets, will require additional fasteners.
7. Fasteners must be installed no more than 2” from the end of each board.
8. Inteplast- Trim Free Foam should be fastened into a flat, solid substrate. Fastening Inteplast- Trim Free Foam into hollow or uneven areas must be avoided.
9. Pre-drilling is typically not required unless a large fastener is used or product is installed in low temperatures.
10. 3/8” and 1/2” sheet product is not intended to be ripped into trim pieces. These profiles must be glued to a substrate and mechanically fastened.

B. Adhesives:

1. Glue all joints between Inteplast® Trim Free Foam such as window surrounds, long fascia runs, etc. with cellular PVC cement, to prevent joint separation.
2. The glue joint should be secured with a fastener and/or fastened on each side of the joint to allow adequate bonding time.
3. Surfaces to be glued should be smooth, clean and in complete contact with each other.
4. To bond Inteplast® Trim Free Foam to other substrates, various adhesives may be used. Consult adhesive manufacturer to determine suitability.

C. Sealant:

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

2.03 FINISHES

A. Inteplast® Trim Free Foam do not require paint for protection, but may be painted to achieve a custom color.
B. Preparation:

1. No special surface preparation is required prior to painting - sanding is not necessary for paint adhesion.
2. Surface must be clean and dry.
3. If desired, nail holes may be filled with polyurethane or acrylic based caulk.
4. Use a 100% acrylic latex paint with a Light Reflective Value (LRV) of 54 or higher.
5. Follow the paint manufacturer's recommendations to apply.

PART III EXECUTION

3.01 INSTALLATION

A. Manufacturers instructions:

1. Comply with manufacturer's product catalog installation instructions and product technical bulletin instructions.

B. Cutting:

1. Inteplast® Trim Free Foam can be cut using the same tools used to cut lumber.
2. Carbide tipped blades designed to cut woodwork well. Avoid fine tooth metal cutting blades.
3. Rough edges from cutting may be caused by excessive friction, poor board support, or worn or improper tooling.

C. Drilling:

1. Inteplast® Trim Free Foam can be drilled using the same tools used to drill lumber.
2. Drilling Inteplast® Trim Free Foam is similar to drilling a hardwood. Care should be taken to avoid frictional heat buildup.
3. Use standard woodworking drills. Do not use drills made for normal rigid PVC.
4. Periodic removal of Inteplast® Trim Free Foam shavings from the drill hole may be necessary.

D. Milling:

1. Inteplast- Trim Free Foam can be milled using standard milling machines used to mill lumber.
2. Relief Angle 20° to 30°.
3. Cutting speed to be optimized with the number of knives and feed rate.

E. Routing:

1. Inteplast- Trim Free Foam can be routed using standard router bits and the same tools used to rout lumber.
2. Carbide tipped router bits are recommended.

F. Edge Finishing:

1. Edges can be finished by sanding, grinding or filing with traditional woodworking tools.

G. Nail Location:

1. Use 2 fasteners per every framing member for trim board applications.
2. Inteplast- Trim Free Foam of over 12” or wider, as well as sheets, will require additional fasteners.
3. Fasteners must be installed no more than 2” from the end of each board.

H. Thermal Expansion and Contraction:

1. Inteplast- Trim Free Foam expands and contracts with changes in temperature.
2. Properly fastening Inteplast- Trim Free Foam along its entire length will minimize expansion and contraction.
3. When properly fastened, allow for 1/8” per 18 foot of Inteplast- Trim Free Foam for expansion and contraction.
4. Joints between pieces of Inteplast- Trim Free Foam should be glued to eliminate joint separation.
5. Allow expansion and contraction space at the ends of long runs.

END OF SECTION