

SECTION 097720 – DECORATIVE FIBERGLASS REINFORCED WALL PANELS**PART 1 - GENERAL****1.1 SUMMARY****A. Section Includes:**

1. Prefinished polyester glass reinforced plastic sheets and adhered to unfinished gypsum wallboard.
2. PVC trim.

1.2 REFERENCES**A. American Society for Testing and Materials: Standard Specifications (ASTM)**

1. ASTM D 256 - Izod Impact Strengths (ft #/in)
2. ASTM D 570 - Water Absorption (%)
3. ASTM D 638 - Tensile Strengths (psi) & Tensile Modulus (psi)
4. ASTM D 790 - Flexural Strengths (psi) & Flexural Modulus (psi)
5. ASTM D 2583- Barcol Hardness
6. ASTM D 5319 - Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels.
7. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 SUBMITTALS**A. Product Data: Submit sufficient manufacturer's data to indicate compliance with these specifications, including:**

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

B. Shop Drawings: Submit elevations of each wall showing location of paneling and trim members with respect to all discontinuities in the wall elevation.**C. Selection Samples: Submit manufacturer's standard color pattern selection samples representing manufacturer's full range of available colors and patterns.****D. Samples for Verification: Submit appropriate section of panel for each finish selected indicating the color, texture, and pattern required.****E. Submit complete with specified applied finish.**

1. For selected patterns show complete pattern repeat.
2. Exposed Molding and Trim: Provide samples of each type, finish, and color.

1.4 QUALITY ASSURANCE**A. Conform to building code requirements for interior finish for smoke and flame spread requirements as tested in accordance with:**

1. ASTM E 84 (Method of test for surface burning characteristics of building Materials)
 - a. Wall Required Rating – Class A.

B. Sanitary Standards: System components and finishes to comply with:

1. United States Department of Agriculture (USDA) requirements for food preparation facilities, incidental contact.
2. Food and Drug Administration (FDA) 1999 Food Code 6-101.11.

C. DELIVERY, STORAGE AND HANDLING

1. Deliver materials factory packaged on strong pallets.
2. Store panels and trim lying flat, under cover and protected from the elements. Allow panels to acclimate to room temperature (70°) for 48 hours prior to installation.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Building are to be fully enclosed prior to installation with sufficient heat (70°) and ventilation consistent with good working conditions for finish work
- B. During installation and for not less than 48 hours before, maintain an ambient temperature and relative humidity within limits required by type of adhesive used and recommendation of adhesive manufacturer.
 1. Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.

1.6 WARRANTY

- A. Furnish one year guarantee against defects in material and workmanship.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Marlite; 202 Harger Street, Dover, OH 44622. 800-377-1221 FAX (330) 343-4668 Email: info@marlite.com www.marlite.com.
 1. Product: Standard FRP

2.2 PANELS

- A. Fiberglass reinforced thermosetting polyester resin panel sheets complying with ASTM D 5319.
 1. Coating: Multi-layer print, primer and finish coats or applied over-layer.
 2. Thickness: 0.090" nominal
 3. Tolerance:
 - a. Length and Width: +/- 1/8 "
 - b. Square - Not to exceed 1/8 " for 8 foot panels or 5/32 " for 10 foot panels
 4. Properties: Resistant to rot, corrosion, staining, denting, peeling, and splintering.
 5. Back Surface: Smooth. Imperfections which do not affect functional properties are not cause for rejection.
 6. Front Finish: Smooth.
 7. Color: As selected from manufacturer's standard options.
 8. Fire Rating Class A Fire Rating.
 9. Size: Manufacturer's standard sheet size for the detailed application.

2.3 ACCESSORIES

- A. Provide manufacturer's standard base moldings, inside and outside corners, and end caps as required for a complete installation.
- B. Fasteners: Non-staining nylon drive rivets.
 1. Match panel colors.
 2. Length to suit project conditions.
- C. Adhesive: Manufacturer's recommended construction adhesives complying with ASTM C 557.

- D. Sealant: Manufacturer's clear or white silicone sealant.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine backup surfaces to determine that corners are plumb and straight, surfaces are smooth, uniform, clean and free from foreign matter, nails countersunk, joints and cracks filled flush and smooth with the adjoining surface.
- B. Repair defects prior to installation.
 - 1. Level wall surfaces to panel manufacturer's requirements. Remove protrusions and fill indentations.

3.2 INSTALLATION

- A. Comply with manufacturer's recommended procedures and installation sequence.
- B. Cut sheets to meet supports allowing 1/8" clearance for every 8 foot of panel.
 - 1. Cut and drill with carbide tipped saw blades or drill bits, or cut with shears.
 - 2. Pre-drill fastener holes 1/8" oversize with high speed drill bit.
 - 3. Space at 8" maximum on center at perimeter, approximately 1" from panel edge.
 - 4. Space in field of panel in rows at 16" on center, with fasteners spaced at 12" maximum on center.
- C. Apply panels to board substrate, above base, vertically oriented with seams plumb and pattern aligned with adjoining panels.
 - 1. Install panels with manufacturer's recommended gap for panel field and corner joints.
 - 2. Adhesive trowel and application method to conform to adhesive manufacturer's recommendations.
 - 3. Drive fasteners for snug fit. Do not over-tighten.
- D. Apply panel moldings to all panel edges using silicone sealant providing for required clearances.
 - 1. All moldings must provide for a minimum 1/8" (3mm) of panel expansion at joints and edges, to insure proper installation.
 - 2. Apply sealant to all moldings, channels and joints between the system and different materials to assure watertight installation.

3.3 CLEANING

- A. Remove excess sealant from panels and moldings. Wipe panel down using a damp cloth and mild soap solution or cleaner.
- B. Refer to manufacturer's specific cleaning recommendations Do not use abrasive cleaners.

END OF SECTION 097720