

Technical Information: Specification

SECTION 06610- Fiberglass Reinforced Polyester Components

PART 1 - GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Sealant Section 07900
- B. Metal Stud Section 05410
- C. Flashing and Sheet Metal Section 07600

1.02 COORDINATION

- A. Coordinate provision of Fiberglass Reinforced Polyester (FRP) components with Section 05410.

1.03 QUALIFICATIONS

- A. Work of this Section only to be carried out by manufacturer who has adequate plant, equipment and skilled tradesmen to perform it expeditiously and who is known to have executed satisfactorily the manufacture and installation of projects similar in scope and nature.
- B. Manufacturer to have adequate in-plant laboratory facilities to ensure rigid quality control of incoming materials and manufacturing processes.
- C. Manufacturer to be an established firm manufacturing FRP architectural building fabrications and to have been in business for a minimum of ten (10) years.

1.04 SHOP DRAWINGS AND SAMPLES

- A. Shop drawings: Submit shop drawings in accordance with Section 01300. Show complete range of modules, fixing, framing, layout of panels, dimensions, etc. Outline installation procedures.
- B. Samples: Submit a minimum of three (3) 6" x 6", flat samples of finish for Owner's approval. Submit sample panel in accordance with Section 01300.
- C. Mock-ups and Molds: Prior to production, erect mock-up unit on site or in the production facility for inspection. Mock-up to include typical joint condition. Manufacturer will be responsible for making any adjustment to sample prior to manufacturing the balance, including adjustments for aesthetics, structural fastening, etc.

1.05 PROJECT/SITE CONDITION VERIFICATION

- A. Field Measurements: Prior to manufacturing, the installation contractor will be responsible for obtaining all field measurements for verification of shop drawing dimensions and inclusion of them on manufacturers cut sheets.
- B. Prior to installation: The installer shall check job site dimensions. Any discrepancies between design and field dimension shall be brought to the attention of the General Contractor and the Architect.

1.06 MAINTENANCE

- A. Provide data for maintenance and repairs of FRP for incorporation into Maintenance Manual specified in Section 01700.

1.07 PRODUCT HANDLING

- A. FRP to be suitably packaged or crated to prevent damage in shipment and handling. Finished surfaces to be protected by sturdy wrappings. Where it assists in identification of various different types, label units.
- B. At time of installation, remove units from storage to place of installation, uncrate and fasten in place.
- C. Provide all necessary anchors, accessories and portable equipment.

1.08 WARRANTY

A. Provide a written guarantee stating that the FRP products are guaranteed against delamination, chalking, cracking, crazing, discoloration, breakage or loosening from mountings (other than by malicious cause) for a period of one year from the date of Substantial Completion.

1.09 DESIGN RESPONSIBILITY

A. The design of the FRP components and assembly shall meet all Dead, Live, Seismic, and Wind loads as required by code in the jurisdiction of the project. All wind loads shall be considered as an inward pressure and as an outward suction.

PART 2 - PRODUCTS

2.01 PHYSICAL CHARACTERISTICS

Flexural Strength (psi):	ASTM D-790M-86	20,000-30,000
Flexural Modulus (psi):	ASTM D-790M-86	10-12x10 ^{exp.5}
Tensile Strength (psi):	ASTM D-638M-86b	12,200-18,800
Barcol Hardness:	ASTM D-2583-87	45-55
Glass Content:	y weight;	25 - 30%.

2.02 MATERIALS

- A. Gel Coat: Polyester neo pentyl glycol type, to obtain optimum processing and service qualities in the finished product. Formulated to be non-fading, non- chalking, ultraviolet stabilized and scratch resistant.
- B. Resin: General Purpose polyester type resin.
- C. Glass: Fibers of glass to suit resin system. Generally 'E' type fiberglass, random chopped fibres.
- D. Fasteners: Corrosion resistant, sized to resist applied loads.

2.03 FINISH

- A. Finished surfaces to be smooth, free from all defects.
- B. Moldings to be consistent in color and texture to match approved samples and to provide uniform appearance with adjacent sections that can be viewed together.
- C. Color and finish shall be as selected by the Architect from the manufacturer's standard finishes.

2.04 ACCEPTABLE MANUFACTURERS

A. Vista FRP Products, 403 Clements Road West, Ajax, Ontario, Canada, L1S 6N3
 Phone: 1-905-428-3001 Fax: 1-905-428-3308 or approved equal.

PART 3 - EXECUTION

3.01 FRAMING

A. Review framing provided under Section 05500. Request adjustments if necessary to bring installation true to lines and to accurately match requirements of moldings.

3.02 FABRICATION

- A.** Fibreglass components to be manufactured using a General Purpose resin.
- B.** Gel-coat to be enhanced with UV inhibitor. Gel-coat thickness to be .015 to .025 inches.
- C.** Products to be true to profile, with finely formed corners and edges.
- D.** Internal baffles as required by the structural design.
- E.** Design joints to resist the penetration of wind or water and to provide for effective sealing.
- F.** Finished thickness of laminate to be not less than 3/16" and to be thicker where required to provide stiffness. Build in reinforcement if required.
- G.** Parting lines to be minimal and located so as not to detract from the finished appearance.

3.03 INSTALLATION

- A.** Install FRP components plumb, level and true without distortion.
- B.** Secure moldings to framing solidly and safely.
- C.** Make any adjustments required to ensure a firm installation, including re-fabrication of poorly fitting units.

END OF SECTION 06610