

Guide Specification

Tournesol Siteworks Fiberglass Planters and Planter Liners

1.0 GENERAL

1.1 WORK INCLUDED

- A. Provision of fiberglass planters and planter liners

1.2 RELATED WORK

- A. Section 03300 Cast-in-Place concrete
- B. Section 06100 Rough Carpentry
- C. Section 06200 Finish Carpentry

1.3 SUBMITTALS

- A. Product Data: Manufacturer's standard catalog cut sheets.
- B. Samples: As required for color selection or material thickness only.
- C. Shop Drawings: For custom applications, showing critical sizes and dimensions for installation and integration with other work.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Unwrap and inspect planters and planter liners after delivery for signs of damage during transit.
- B. Protect planters and planter liners from damage during storage and handling.
- C. Store planters and planter liners indoors if possible. Do not stand or walk on planters or planter liners.

1.5 PROJECT CONDITIONS

- A. Contractor to provide adequate structural support for planter liner units. Unless otherwise specified, planters and liners should have continuous basal support.
- B. Protect units from damage by adjacent work.

2.0 PRODUCTS

2.1 ACCEPTABLE PRODUCTS/MANUFACTURERS

- A. Fiberglass Planters and planter liners, manufactured by Tournesol Siteworks LLC. 30955 San Antonio St., Hayward, CA 94544 Tel: (800) 542-2282 FAX (510) 471-6243

2.2 FIBERGLASS PLANTERS AND PLANTER LINERS

- A. Materials - All parts shall be constructed of glass fiber reinforced polyester resin, using either the hand-layup or spray-layup methods.
 1. Glass fibers shall be PPG or equivalent. For hand layup fibers should be uniform chopped strand mat, minimum 3 oz. density. Smaller round containers will use one layer of mat (or spray equivalent), smaller squares and larger round containers must use two layers (or spray equivalent), larger square and rectangular containers must use min. 3 layers (or spray equivalent).
 2. Polyester resin shall be compounded by a reputable manufacturer. All planters and planter liners will be fabricated of 100% resin – inorganic fillers will not be acceptable.
 3. Gel coating (where necessary) shall be of specified color. Metallic finishes will use atomized metal thoroughly blended with polyester resin, and applied over clean surfaces.

4. Painted finishes will be made of polyurethane low VOC (less than 2.8 VOC) enamel with excellent corrosion and chemical resistance by PPG (AUE 280) or equivalent.

B. Construction

Architectural parts shall be fabricated by hand-layup, spray laminate, or resin transfer method using suitable molds to attain the desired surface finish. The finished reinforced plastic material shall be not less than 5/32" thick and thicker in those areas requiring additional structural strength.

Where ribs or stiffeners are to be fastened to liner sections by spray laminating over premolded forms, the stiffeners or ribs shall be located and spray laminated into position so that the finished joint shall conform to performance specifications below.

For vertical surface reinforcement, an inorganic honeycomb strengthening layer using double-veiled, bonded material shall be located and hand- or spray-laminated into position prior to the wall material setting. The entire honeycomb panel must be subject to pressure during curing to ensure proper bonding to wall. Honeycomb thickness will be minimum 1/4", or thicker as required for larger spans. Marine-grade plywood may be substituted for bottom panels to be penetrated with drainage or irrigation holes.

Interior of planter or planter liner to be waterproofed with additional layer of black gel coating, additional waterproofing available as specified.

C. Performance characteristics and capacities, finished product to yield the following minimum performances:

Hardness, Barcol	50
Tensile Strength, Ultimate	12500 psi
Elongation at break	1.3%
Modulus of Elasticity	1020 ksi
Flexural Modulus	754 ksi
Flexural Yield Strength	27600 psi
Compressive Yield Strength	21800 psi
Glass content, average	35%

Vertical wall panels will not deform more than L/200 when loaded with 80 lbs/cu ft. soil mass. Similar performance with heavier media is available per specification.

D. Finish: specified finish; factory finished.

E. Sizes: Modular units fabricated to size by manufacturer as required to fill specified areas. Refer to catalog for standard sizes. Custom sizes as per approved shop drawings.

F. Fire retardant requirement can be met with the addition of retardant chemicals to the resin. Additional information is available for this specification.

2.3 PLANTER ACCESSORIES

A. Field installed drainage/irrigation connection fitting. Thread-by-thread thermoplastic drainage adapter, 1/2", 3/4" and 1"NPT female thread available. Contractor to locate drainage hole, drill as necessary, and install fitting.

B. Lifting hooks or stabilizer anchors, quantity, size, and capacity as specified.

3.0 EXECUTION

3.1 PREPARATION

A. Prior to planter or planter liner fabrication, the contractor shall verify as-built dimensions of planter area or receptacles to ensure proper size, fit and quantity required.¹

B. Unless planters have drainage fittings as in 2.3.A, drainage holes to be located and made by contractor in the field to fit to drainage system.

3.2 INSTALLATION

- A. Install planter liners to allow for easy removal if necessary.
- B. Provide continuous basal support.
- C. Install liners level to permit adequate drainage and irrigation.

¹ Field verification of actual planter receptacle size is frequently overlooked by the contractor, and can lead to delays and additional cost if neglected.