



## **Part 1 – General**

### **1.1 Section Includes**

- a. Glass fiber reinforced plastic fabrications as indicated on the drawings

### **1.2 Related Sections**

- a. Section 05500 – Metal Fabrications: Supplementary supports for large items.
- b. Section 02881 – Playground Equipment and Structures

### **1.3 References**

- a. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics; 1999.
- b. ASTM D 648 – Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position; 1998c.
- c. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials; 1999.
- d. ASTM D 695 – Standard Test Method for Compressive Properties of Rigid Plastics; 1996.
- e. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.
- f. ASTM F1487-11 – Standard Consumer Safety Performance Specification for Playground Equipment for Public Use
- g. ASTM F2373-11 – Standard Consumer Safety Performance Specification for Public Use Playground Equipment for Children 6 Months through 23 Months
- h. Consumer Product Safety Council (CPSC) Handbook for Public Playground Safety

### **1.4 Submittals**

- a. Submit under provisions of Section 01300.
- b. Product Data: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage, and handling requirements and recommendations, and installation recommendations.
- c. Shop Drawings: For custom items, provide drawings showing dimensions, layout, details, and interface with adjacent work; include use zones if critical to proper installation.
- d. Samples: For each custom finish specified, two samples, minimum size 6 inches (150mm) square, representing actual product, color, and patterns.

### **1.5 Delivery, Storage, and Handling**

- a. Transport, lift, and handle units with care, avoiding excessive stress and preventing damage; use appropriate equipment.
- b. Store products in manufacturer's unopened packaging until ready for installation; store units upright.

## **Part 2 – Products**

### **2.1 Manufacturers**

- a. Acceptable Manufacturer: The 4 Kids; 4400 Oneal, Greenville, TX 75401. ASD. Tel: (903) 454-9237. Fax: (903) 454-3642. Email: [info@the4kids.com](mailto:info@the4kids.com), [www.the4kids.com](http://www.the4kids.com)
- b. Substitutions: Not permitted.
- c. Requests for substitutions will be considered in accordance with provisions of Section 01600.



## **2.2 Materials**

- a. Glass Fiber Reinforced Plastic Fabrications: Molded surface coat over polyester resin laminate reinforced with glass fiber and structural reinforcing as required.
- b. Surface Coat: Ultraviolet inhibited coat.
- c. Surface Coat: As selected.
- d. Color: \_\_\_\_\_.
- e. Texture on Exposed Side: \_\_\_\_\_.
- f. Glass Fiber: "E" type random chopped fibers.
- g. Glass Content: 10 to 30 percent by weight.
- h. Shell Thickness: 3/16 inch (5mm), minimum.
- i. Compressive Strength: 17000 psi (117MPa), when tested in accordance with ASTM D 695.
- j. Thermal Expansion Coefficient:  $10 \times 10^{-6}$  per degree Fahrenheit ( $5.56 \times 10^{-6}$  per degree Celsius)
- k. Specific Gravity: 1.5
- l. Variation in Thickness from Nominal:  $\pm 1/4"$  (6mm).
- m. Variation in Thickness of Gel Coat:  $\pm 2.5$  mils (0.06mm), maximum.
- n. Provide concealed reinforced anchorage points for anchors of type recommended by manufacturer.
- o. Cure and clean prior to shipment; remove material that may be toxic to plant or animal life or incompatible with adjacent building materials.

## **Part 3 – Execution**

### **3.1 Examination**

- a. Do not begin installation until substrates have been properly constructed.
- b. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- c. Check field dimensions before beginning installation. If dimensions vary too much from design dimensions for proper installation, notify Architect and wait for instructions before beginning installation.

### **3.2 Preparation**

- a. Clean surfaces thoroughly prior to installation.
- b. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- c. Install supplementary, temporary, and permanent supports as required for proper installation.

### **3.3 Installation**

- a. Install in accordance with applicable code and manufacturer's recommendations; shim where necessary.

### **3.4 Protection**

- a. Protect installed products until completion of project.
- b. Touch-up, repair, or replace damaged products before Substantial Completion.
- c. Do not allow access until protective ground surfacing is in place, and inspections are complete.

**End of Section**