

FiberTech Polymers, Inc.
2150-B Parco Avenue
Ontario, California 91761
Toll Free (888) 248-9653
Phone (909) 947-6777
Fax (909) 947-6775
Website www.timberwolfcomposites.com
E-mail info@timberwolfcomposites.com

July 2008

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers are from *MasterFormat 1995 Edition*, with section numbers from *MasterFormat 2004 Edition* in parentheses. Delete version not required.

SECTION 02820 (32 31 24)

COMPOSITE FENCES

Specifier Notes: This section covers FiberTech Polymers, Inc. “TimberWolf® Pro Series” fiber-reinforced composite fencing. Consult FiberTech Polymers, Inc. for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiber-reinforced composite fencing.

1.2 REFERENCE STANDARDS

Specifier Notes: List reference standards mentioned in this section, complete with designations and titles. Delete reference standards not included in this edited section. This article does not require compliance with reference standards, but is merely a listing of those used.

- A. ASTM D 1037 – Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
- B. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. ASTM F 1043 – Standard Specification for Strength and Protective Coatings on Steel Industrial Chain Link Fence Framework.
- D. ASTM F 1083 – Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
- E. AWPA E1 – Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.
- F. AWPA E10 – Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures.

1.3 SUBMITTALS

Specifier Notes: Edit submittal requirements as required. Delete submittals not required.

- A. Comply with Section 01330 (01 33 00) – Submittal Procedures.
- B. Product Data: Submit manufacturer’s product data, including installation instructions.

Specifier Notes: Delete samples if not required.

- C. Samples: Submit manufacturer’s samples:
 - 1. Fiber-reinforced composite fencing picket section.
 - 2. Standard color samples.
- D. Manufacturer’s Certification: Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
- E. Material Certification: Submit recycled content material certification.
- F. Cleaning Instructions: Submit manufacturer’s cleaning instructions.
- G. Warranty Documentation: Submit manufacturer’s standard warranty.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer’s instructions.

2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
3. Store materials on flat, level surface.
4. Protect materials during storage, handling, and installation to prevent damage.

1.5 WARRANTY

- A. Warranty Period: Lifetime.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. FiberTech Polymers, Inc., 2150-B Parco Avenue, Ontario, California 91761. Toll Free (888) 248-9653. Phone (909) 947-6777. Fax (909) 947-6775. Website www.timberwolfcomposites.com. E-mail info@timberwolfcomposites.com.

2.2 COMPOSITE FENCES

- A. Fiber-Reinforced Composite Fencing: "TimberWolf Pro Series".
1. Material: 100 percent, post-consumer, recycled cellulose-fiber and polyethylene composite.
 2. Certified: Scientific Certification Systems (SCS), minimum 90 percent post-consumer recycled content.
 3. Does not splinter or crack.
 4. Resists color fade.
 5. Does not yellow or fade to gray.
 6. Resists Insect Damage: AWPA E1.
 7. Resists Fungal and Moisture Damage: AWPA E10.
 8. Does not contain lignin, rosin, or tannins.
 9. Temperature Range: Minus 70 degrees F to plus 130 degrees F.
- B. Test Results:
1. Coefficient of Linear Thermal Expansion, ASTM D 1037: 7.6×10^{-6} in/in/degree F.
 2. Fire Rating, ASTM E 84: Class B.
 3. Moisture Absorption, ASTM D 1037: Less than 2 percent.
 4. Pull-Out Strength, ASTM D 1037: 509 lbs/in.

Specifier Notes: Specify the desired fence style. Delete styles not desired.

- C. Style: [Basket Weave] [Board-on-Board] [Estate] [Shadow Box].

Specifier Notes: Specify the top of pickets. Specify flat-top pickets for the Basket Weave and Estate fence styles. Specify flat-top or dog-eared pickets for the Board-on-Board and Shadow Box fence styles.

- D. Top of Pickets: [Flat] [Dog eared].

E. Finish:

Specifier Notes: Specify the desired fence color. Delete colors not desired.

1. Color: [Coastal Cedar] [Dark Walnut] [Driftwood Grey] [Sequoia Red].
2. Texture: Woodgrain, both sides.

2.3 ACCESSORIES

A. Steel Pipe Supports Inside Composite Post Sleeves:

1. Nominal Pipe Size: 2.5 inches.

Specifier Notes: Specify pipe wall thickness required by wind load.

2. Wall Thickness: [0.055 inch] [0.063 inch] [0.083 inch] [0.120 inch] [0.203 inch] [0.276 inch].

Specifier Notes: Specify Type I or Type II steel pipe required by wind load.

3. Steel Pipe, Type I: ASTM F 1083.
 - a. Minimum Yield Strength: 30,000 psi (205 MPa).
 - b. Coating: Hot-dipped galvanized.
4. Steel Pipe, Type II: ASTM F 1043, Group IC.
 - a. Minimum Yield Strength: 50,000 psi (344 MPa).
 - b. Coating: ASTM F 1043.

B. Rail Brackets:

1. "TimberWolf" color-coated brackets.

Specifier Notes: Specify the color of rail brackets.

2. Color: [Brown] [Grey].

C. Hardware and Fasteners: Corrosion resistant, exterior use.

Specifier Notes: Specify the color of screws.

1. Screws: [Brown] [Grey].

D. Adhesive: "TimberWolf" adhesive.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive fiber-reinforced composite fencing for property lines and underground utilities.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install fiber-reinforced composite fencing in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install fiber-reinforced composite fencing plumb, level, straight, square, accurately aligned, correctly located, to proper elevation, and secure.

Specifier Notes: Edit the following sentence as required.

- C. Dig post holes to dimensions and set posts using steel pipe [in accordance with manufacturer's instructions] [as indicated on the Drawings].
- D. Install steel pipe for posts in concrete.
- E. Install fiber-reinforced composite fencing using manufacturer's supplied hardware and fasteners.
- F. Attach pickets to rails with both adhesive and fasteners in accordance with manufacturer's instructions.
- G. Attach post caps to top of posts in accordance with manufacturer's instructions.
- H. Install gates in accordance with manufacturer's instructions using manufacturer's supplied hardware and fasteners.

3.3 ADJUSTING

- A. Adjust gates and operating hardware to:
 - 1. Function properly.
 - 2. Operate smoothly without binding.
- B. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

3.4 CLEANING

- A. Clean fiber-reinforced composite fencing promptly after installation in accordance with manufacturer's instructions.
- B. Remove labels and temporary protective coverings.
- C. Do not use harsh cleaning materials or methods that could damage finish.

3.5 PROTECTION

- A. Protect installed fiber-reinforced composite fencing to ensure that, except for normal weathering, fencing will be without damage or deterioration at time of Substantial Completion.

END OF SECTION