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BAMBOO PLYWOOD AND VENEER
EDGE GRAIN, FLAT GRAIN,
PLYBOOSTRAND®, PLYBOOSQUARED™
PRODUCT SPECIFICATION
IN CSI 3-PART FORMAT

GENERAL NOTES TO SPECIFIER:

PLEASE GO TO WWW.PLYBOO.COM TO VERIFY THIS IS THE MOST CURRENT VERSION OF THIS SPECIFICATION.

THE FOLLOWING PRODUCT SPECIFICATION LANGUAGE IS INTENDED TO ASSIST DESIGN PROFESSIONALS IN SPECIFYING BAMBOO PLYWOOD IN EXISTING 3-PART SPECIFICATIONS FOR PANELING, CASEWORK, DOORS, AND SIMILAR ARCHITECTURAL WOODWORK.

SAMPLE LANGUAGE IS PROVIDED FOR APPLICABLE ARTICLES IN PART 1-GENERAL AND PART 2-PRODUCTS FOLLOWING THE CONSTRUCTION SPECIFICATION INSTITUTE'S SECTIONFORMAT. BECAUSE OF THE VARIATION IN SPECIFICATION SYSTEMS CURRENTLY IN USE, ARTICLE AND PARAGRAPH NUMBERS AND TITLES MAY DIFFER SOMEWHAT THAN PRESENTED HEREIN. THE SAMPLE LANGUAGE SHOULD BE EDITED ACCORDINGLY TO FIT EACH FIRM'S SPECIFICATIONS.

ARTICLES AND PARAGRAPHS OF THIS PRODUCT SPECIFICATION ASSUME THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING 01 25 13-PRODUCT SUBSTITUTION PROCEDURES, SECTIONS 01 33 00-SUBMITTAL PROCEDURES, 01 62 00-PRODUCT OPTIONS, 01 66 00-PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01 74 00-CLEANING AND WASTE MANAGEMENT, 01 77 00-CLOSEOUT PROCEDURES, AND 01 78 00-CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION MAY BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

NOTES TO THE SPECIFIER ARE IN ALL UPPER CASE TEXT AND ARE CONTAINED WITHIN ROWS OF ASTERISKS.

GREY HIGHLIGHTED GREEN TEXT AND NOTES RELATE TO LEED® PROJECTS AND CAN BE DELETED IF THE PROJECT IS NOT INTENDED TO ATTAIN LEED CERTIFICATION.

OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITHIN BRACKETS, E.G. [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS.

PART 1-GENERAL

1.01 SUMMARY

A. Section Includes:

ADD SUBPARAGRAPH IDENTIFYING THE ITEMS MADE WITH BAMBOO PLYWOOD.

B. Related Sections:

INCLUDE ALL DIVISION 01 SECTIONS CONTAINING LEED® REQUIREMENTS.

1.02 REFERENCES

IF THE "REFERENCES" ARTICLE IS USED, INCLUDE THE FOLLOWING IN THE REFERENCE LIST:
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- A. American Society for Testing and Materials:
 1. ASTM D 1037, Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
 2. ASTM D 3043, Standard Test Methods for Flexural Structural Panels in Flexure.
 3. ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials.
 4. ASTM D 4442, Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials.
 5. ASTM D 3500, Standard Test Method for Structural Panels in Tension.
 6. ASTM E 1333, Standard Test Method for Determining Formaldehyde Concentrations in Air Emission Rates from Wood Using a Large Chamber.
- B. American National Standards Institute/Hardwood Plywood and Veneer Association.

C. US Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System™ (LEED).

1.03 SUBMITTALS

A. Product Data:

INCLUDE THE FOLLOWING IN THE "PRODUCT DATA" PARAGRAPH:

1. Bamboo plywood manufacturer's product data.

B. LEED Submittals:

INCLUDE THE FOLLOWING FOR LEED PROJECTS, AS APPLICABLE.

1. Credit MR 6, Rapidly Renewable Materials: Bamboo manufacturer's product data for each product used, indicating that product(s) are manufactured from a rapidly renewable resource.

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1.04 WARRANTY

INCLUDE THE FOLLOWING WARRANTY

- A. A Warranty for Smith & Fong Plyboo Products referenced at www.plyboo.com

PART 2—PRODUCTS

2.01 MATERIALS

INCLUDE THE FOLLOWING PARAGRAPHS AND SUBPARAGRAPHS FOR BAMBOO PLYWOOD AS APPROPRIATE.

- A. Bamboo Plywood:
 - 1. Manufacturer: Smith & Fong Company, San Francisco, CA 94103
 - a. Tel: (866) 835-9859.
 - b. <http://www.plyboo.com/>
 - 2. Species: Moso (*Phyllostachys Pubescens*).

INCLUDE THE FOLLOWING SUBPARAGRAPH IF PRODUCTS ARE USED FOR WALL OR CEILING FINISHES PURSUANT TO IBC SECTION 803.

- 3. Fire Resistance Classification: [Class C].
 - a. Test surface burning characteristics in accordance with ASTM E 84.

SELECT APPROPRIATE TYPE(S) BELOW TO SUIT PROJECT REQUIREMENTS. DELETE THOSE NOT USED. FABRICATION ARTICLE OR DRAWINGS MUST CLEARLY IDENTIFY SPECIFIC USES.

GO TO <http://www.plyboo.com/> FOR AVAILABLE FACE SIZES.



- 4. Type:
 - a. 1 inch thick, 3-ply [amber flat grain] [amber edge grain] [natural flat grain] [natural edge grain]
 - b. 3/4 inch thick, 4-ply [amber flat grain] [natural flat grain]
 - c. 3/4 inch thick, 3-ply [amber flat grain] [amber edge grain] [natural flat grain] [natural edge grain] [Dark Strand] [Honey Strand] [Neopolitan].
 - d. 3/4 inch thick, 1-ply [amber edge grain] [natural edge grain]
 - e. 1/2 inch thick, 3-ply [amber flat grain] [amber edge grain] [natural flat grain] [natural edge grain]
 - f. 1/4 inch thick, 3-ply [amber flat grain] [amber edge grain] [natural flat grain] [natural edge grain]
 - g. 1-1/16 inch thick, 5-ply PlybooSquared [amber end grain] [natural end grain] [sahara end grain] [havana end grain]
 - h. 5/32 (4mm) inch thick, 1-ply
 - i. [Dark Strand] [Honey Strand] [Neopolitan]
 - ii. No added Uread Formaldehyde
- 5. Physical/Mechanical Properties:
 - a. ASTM D 3043 Method D Flexural Strength (MOE/MOR)
 - i. 3/4 inch thick, 1-ply, Edge Grain: 179 MOE/11,371 MOR average
 - ii. 3/4 inch thick, 3-ply, Cross Core: 148 MOE/9,109 MOR average
 - iii. 3/4 inch thick, 3-ply, Cross Core Strand: 268 MOE/14,762 MOR average
 - b. ASTM D 1037 Screw Hold
 - i. 3/4 inch thick, 1-ply, Edge Grain

- a) Face: 261 pounds average
 - b) Back: 233 pounds average
 - c) Edge 1: 513 pounds average
 - d) Edge 2: 636 pounds average
- ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core
 - a) Face: 1009 pounds average
 - b) Back: 681 pounds average
 - c) Edge 1: 361 pounds average
 - d) Edge 2: 670 pounds average
- iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand
 - a) Face: 742 pounds average
 - b) Back: 831 pounds average
 - c) Edge 1: 980 pounds average
 - d) Edge 2: 759 pounds average
- c. ASTM D 4442 Method A Moisture Content
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain: average 6 - 9 percent
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core: average 6 - 9 percent
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand: average 6 - 9 percent
- d. ASTM D 1037 Tensile Strength Parallel
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain: Load 1700 pounds, Strength 7535 psi
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core: Load 892 pounds, Strength 3497 psi
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand: Load 1732 pounds, Strength 5968 psi
- e. ASTM D 3500 Tensile Strength Perpendicular
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain: Load 642 pounds, Strength 428 psi
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core: Load 1536 pounds, Strength 1024 psi
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand: Load 1591 pounds, Strength 1061 psi
- f. ASTM D 1037 Dimensional Stability: at 20% RH
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain
 - a) Linear Expansion: Parallel -0.04 percent; Perpendicular -0.10 percent average
 - b) Thickness Swell: -0.13 percent average
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core
 - a) Linear Expansion: Parallel -0.09 percent; Perpendicular -0.07 percent
 - b) Thickness Swell: -0.39 percent
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand
 - a) Linear Expansion: Parallel -0.04 percent; Perpendicular -0.07 percent
 - b) Thickness Swell: -0.13 percent
- g. ASTM E 1333 Formaldehyde Emission
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain: 0.02 ppm
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core: 0.02 ppm
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand: 0.02 ppm
- h. ASTM E 84 Surface Burning
 - i. $\frac{3}{4}$ inch thick, 1-ply, Edge Grain: Class C
 - ii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core: Class C
 - iii. $\frac{3}{4}$ inch thick, 3-ply, Cross Core Strand: Class C

B. Accessories

- a. Edge Banding, 7/8 inch width by 0.6 millimeters thickness by 500 inch

- length roll
[amber flat grain] [natural flat grain] [amber edge grain] [natural edge grain]
- b. Edge Banding, 7/8 inch width by 1/16 inch (2mm) thickness by 72 inch length
 - i. [Sahara Strand] [Havana Strand] [Neopolitan]
 - ii. No added Urea Formaldehyde

C. Veneers

- a. 48 inch width by 0.6 millimeters thickness by 96 inch length, fleece backing
[amber flat grain] [natural flat grain] [amber edge grain] [natural edge grain]
- b. 48 inch width by 0.6 millimeters thickness by 96 inch length, paper backing
[amber flat grain] [natural flat grain] [amber edge grain] [natural edge grain]
- c. PlybooSquared, 12 inch width by 1/16 inch (2 mm) thickness by 96 inch length, unbacked
[amber end grain] [natural end grain] [sahara end grain] [havana end grain]
- d. 12 inch width by 1/16 inch (2mm) thickness by 120 inch length, unbacked
 - i. [amber edge grain] [natural edge grain]
 - ii. [FSC Certified] [Non-FSC Certified]
 - iii. No added Urea Formaldehyde
- e. 18 inch width by 1/16 inch (2mm) thickness by 97 inch length, unbacked
 - i. [amber flat grain] [natural flat grain] [amber edge grain] [natural edge grain]
 - ii. [FSC Certified] [Non-FSC Certified]
 - iii. No added Urea Formaldehyde

END OF PRODUCT SPECIFICATION