PHONE: 866.966.2999
EMAIL: TECH@LAMBOO.US

Lamboo Panel, Component & Veneer
3 Part Specification

GENERAL NOTES TO SPECIFIER:

PLEASE GO TO WWW.LAMBOO.US 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 1 SECTIONS CONTAINING LEED© REQUIREMENTS

INCLUDE SECTION 01350 IF THE PROJECT IS A SCHOOL LOCATED IN A DISTRICT USING "SECTION 01350 - SPECIAL ENVIRONMENTAL REQUIREMENTS". HTTP://WWW.CHPS.NET/MANUAL/INDEX.HTM#SPECS PREPARED BY THE COLLABERATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS)

1.02 REFERENCES

IF THE "REFERENCES" ARTICLE IS USED, INCLUDE THE FOLLOWING IN THE REFERENCE LIST:

A. American Society for Testing and Materials (ASTM):

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 (ANSI/HPVA): American National Standard for Hardwood and Decorative Plywood, HP-1.

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.

FOLLOWING RELATES ONLY TO ADHESIVES AND FINISHES APPLIED TO UNFINISHED LAMBOO PRODUCTS. REFERENCES TO DATA SHOULD BE SUPPLIED BY THE ADHESIVE, SEALANT, OR FINISH MANUFACTURER.

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2. Credit EQ 4.1, Low Emitting Materials: Adhesive and/or sealant manufacturer's product data for each product used, indicating adhesive agent contains low VOC adhesive.
3. Credit EQ 4.2, Low Emitting Materials: Paints and/or coatings manufacturer's product data for finishes used.

1.07 Warranty

INCLUDE THE FOLLOWING SPECIAL WARRANTY:

A. A Special Warranty for Lamboo Inc. Products referenced at www.lamboo.us

PART 2–PRODUCTS

2.01 MATERIALS

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

A. Bamboo Plywood:

1. Lamboo Inc. Architectural and Structural Bamboo
   A) Tel: 217-679-0913.
   B) www.lamboo.us
2. Species: Moso (Phyllostachys Pubescens).

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

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3. Fire Resistance Classification: [Class A] [Class C].

A) Test surface burning characteristics in accordance with ASTM E 84.

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4. Type:

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

GO TO www.lamboo.us FOR AVAILABLE FACE SIZES.

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5. Physical/Mechanical Properties:
   - A) ASTM D 3043 Method D Flexural Strength (MOE/MOR)
     - 1) ¾ inch thick 1-ply vertical grain: 179 MOE/11,371 MOR average
     - 2) ¾ inch thick 3-ply Cross Ply: 148 MOE/9,109 MOR average
     - 3) ¾ inch thick Cross Ply Strand: 268 MOE/14,762 MOR average
     - 4) ¾ inch horizontal grain panel
       Average Modulus of Elasticity: 1,487,200psi
   - B) ASTM D 1037 Screw Hold
     - 1) ¾ inch thick 1-ply Vertical Grain
       - A) Face: 261 pounds average
       - B) Back: 233 pounds average
       - C) Edge 1: 513 pounds average
       - D) Edge 2: 636 pounds average
     - 2) ¾ 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
     - 3) ¾ inch thick 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

1)¾ inch thick1-ply vertical grain:
4.9 percent average
2) ¾ inch thick 3-ply Cross Core:
5.7 percent average
3) ¾ inch thick Cross Core Strand:
4.4 percent average

D) ASTM D 1037 Tensile Strength Parallel
1) ¾ inch thick 1-ply vertical grain:
Load 1700 pounds, Strength 7535 psi average
2)¾ inch thick 3-ply Cross Core:
Load 892 pounds, Strength 3547 psi average
3)¾ inch thick Cross Core Strand:
Load 1732 pounds, Strength 5968 psi average

END OF SPECIFICATION