



Case Study: Educational

Stanford University/Huang Engineering Center

Industry:
Education

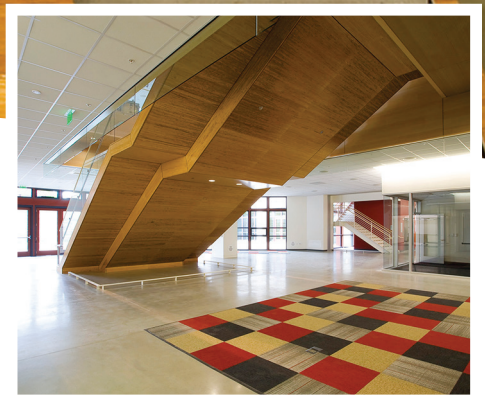
Location:
Palo Alto, California

Architect:
Boora Architects

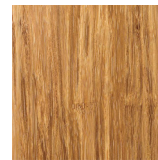
LEED Platinum is in the design for the new Huang Engineering Center at Stanford University. In this ambitious project, Plyboo strand and flat grain amber plywood were used. In addition to applications as stair tread platforms and under sheathing to the stair case, bamboo plywood was used for wall treatments and cabinetry. Formaldehyde-free and FSC were important as contributors to this LEED platinum project.

Possible LEED Credits:

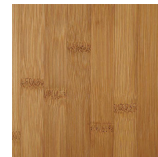
Low emitting materials and certified wood
Floorscore Certified



Materials Used:



Sahara Strand
Bamboo Plywood
BP-4896PH-NAUF / FSC



Amber Flat Grain
Bamboo Plywood
BP-4896A-NAUF / FSC



Sahara Strand
Bamboo Flooring
FL-P5872PH-NAUF / FSC

Physical / Mechanical Properties - Strand Bamboo Plywood

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|--|---|
| Dimensions: | 3/4" x 48" x 96" 19mm x 1219mm x 2438mm (*mm tolerance +/- .5mm thickness) |
| Construction: | Three-ply, cross core construction. |
| Working with Plyboo: | A worksheet is provided with each panel containing useful tips and information and is also available on our website at plyboo.com/downloads . |
| ASTM E84: Surface Burning | Class C |
| ASTM D1037: Dimensional Stability | <ul style="list-style-type: none"> •Linear Expansion (3-ply): Parallel -0.09% / Perpendicular -0.07% •Thickness Swell (3-ply): -0.3% Screw Hold (3-ply) (face/back/edge) <ul style="list-style-type: none"> • 1009lbs/ 681 lbs/ 516 lbs average |
| ASTM D4442: Moisture Content | 6-9% average |
| ASTM D 6007-02: Formaldehyde Concentration in Air from Wood Products, small chamber test | Plyboo = 0.004 ppm (surpasses CARB II standards, 0.05ppm & ULEF standards of 0.04ppm) |

Physical / Mechanical Properties - Flat Grain Bamboo Plywood

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| Dimensions: | 3/4" x 48" x 96" 19mm x 1219mm x 2438mm (*mm tolerance +/- .5mm thickness) |
| Construction: | Three-ply, cross core construction. |
| Working with Plyboo: | A worksheet is provided with each panel containing useful tips and information and is also available on our website at plyboo.com/downloads . |
| ASTM E84: Surface Burning | Class C |
| ASTM D1037: Dimensional Stability | <ul style="list-style-type: none"> •Linear Expansion (3-ply): Parallel -0.04% / Perpendicular -0.07% •Thickness Swell (3-ply): -0.13% Screw Hold (3-ply) (face/back/edge) <ul style="list-style-type: none"> • 742 lbs/ 831 lbs/ 860 lbs average |
| ASTM D4442: Moisture Content | 6-9% average |
| ASTM D 6007-02: Formaldehyde Concentration in Air from Wood Products, small chamber test | Plyboo = 0.004 ppm (surpasses CARB II standards, 0.05ppm & ULEF standards of 0.04ppm) |

Physical / Mechanical Properties - Strand Bamboo Flooring

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|---|--|
| Dimensions: | 9/16" x 3 3/4" x 72" - 14mm x 96mm x 1830mm |
| Installation: | Tongue and Groove, glue down |
| ASTM E648:Critical Radiant Flux: | Class 1 |
| ASTM D1037: Dimensional Stability | Linear Expansion: Parallel -0.02%, Perpendicular -0.23%, Thickness Swell -0.25%, Hardness (Janka Ball Test): 3,500 lbf average |
| ASTM D2394: Coefficient of Friction | Static Coefficient/Dynamic (Sliding) Coefficient: 0.562/ 0.497 |
| ASTM 4442: Moisture Content | 6-9% average |
| ASTM D5116: Organic Emission (CA Section 01350) | Classroom scenario/Office scenario: Pass/Pass |