LAMBOO®
INCORPORATED

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Lamboo® *Design*™ Components
Mechanical Properties

Compression:

- Parallel to grain: 644 BAR (ASTM 3501-86 A)
- Perpendicular to grain: 210 BAR (ASTM 3501-86 A)

Tensile Strength:

- Parallel to grain: 1,055 BAR (ASTM 3500-90)
- Perpendicular to grain: 61 BAR (ASTM 3500-90)

Flexural Strength:

- 986 BAR (ASTM D3043)

Shear Strength:

- 55 BAR (ASTM D3048)

Modulus of Elasticity:

- 165,474 BAR (avg.) (ASTM D 1037)

Thermal Properties:

- Thermal Conductivity: K = W/(cm·°C) = 0.0014
- Thermal Resistivity (R) Value = (cm·°C)/W = 714.29
- Specific Gravity: 0.60
- Density: 608-673 kg/m³.

Dimensional Stability Coefficient:

- Volumetric Stability Factor: 0.00144
- Solid Lamboo Dimensional Stability at 20% RH - Linear Expansion:
  Parallel –0.04 percent average (ASTM D 1037)
  Perpendicular –0.10 percent average (ASTM D 1037)
- Thickness Swell: -0.13 percent average (ASTM D 1037)

Moisture Content

- Solid Lamboo: 4.9 percent average (ASTM D 4442)

Flammability:

- Class 1 (ASTM E648 – Critical Radiant Panel Test) - Class B (ASTM E 84 Surface Burning)

Smoke Density:

- 270 - Flaming Mode (ASTM E622)
- 300 - Non-flaming mode (ASTM E622) * Passing is any number below 450