LAMBOO® Renewall™ Structural Glazing, Curtain Wall and Storefront Systems

Product ID Classification
08 01 40.00 Openings (door ways):
Operation and Maintenance of Entrances, Storefronts, and Curtain Walls

Website
www.lamboo.us/renewall-bamboo-curtainwall

Manufacturer
Lamboo, Inc.
Address
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USA

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Title
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Description
Structural Engineered Bamboo Curtain Wall & Storefront Systems

The LAMBOO® RENEWALL™ series is a product line that offers curtain wall members, storefront system components, and full systems and installation accomplished as a hybrid aluminum/Lamboo solution through our partners listed below. When our LAMBOO® RENEWALL™ curtain wall products are integrated within projects, high-performance meets modern aesthetics and stability. Lamboo curtain wall and storefront systems are ideal in both commercial and residential applications, bringing performance and aesthetic attributes unmatched by any other glazing system on the market. Our components can be custom fabricated to meet the requirements for your project. This product line offers true strength and sustainability through innovation.

The LAMBOO® RENEWALL™ can meet Passive House standards with the implementation of higher performance glass, unlike aluminum systems that cannot meet these standards. *Curtain wall systems available from the certified manufacturers. Please contact us for more more information.

Release Date
2014-10-28
Expiry Date
2017-10-28
HPD URL

SUMMARY DISCLOSURE
The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure
- Measured 100 ppm (ideal)
- Measured 1000 ppm
- Predicted by process chemistry
- As per MSDS (1,000 & 10,000 ppm)
- Not disclosed
- Other

Full Disclosure of Intentional Ingredients
- Yes
- No

Full Disclosure of Known Hazards
- Yes
- No

Disclosure Notes

Contents in Descending Order of Quantity
Undisclosed (Bamboo)

Hazard
- PBT (Persistent Bioaccumulative Toxic)
- Cancer
- Gene Mutation

Highest concern GreenScreen score - no ingredients benchmarked
- Neurotoxicity
- Mammal
- Skin or Eye
- Aquatic toxicity
- Land toxicity
- Physical hazard
- Global warming
- Ozone depletion
- Multiple
- Unknown

Total VOC Content
The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents. It is not a full assessment of environmental impacts from the life cycle of this product. It is not an assessment of risks associated with actual use of the product. It does not address the potential health impacts of substances used or created during manufacture that do not appear in the final product as residuals, nor substances created during combustion or other degradation processes.

This Health Product Declaration was generated following the requirements of the noted Standard version and is valid for a total of three years after date of issue or three months after a substantive change of product contents occurs. Users should verify that this Health Product Declaration is compliant with the most current version of the HPD Standard. Accuracy of claims made in this Health Product Declaration is the sole responsibility of the listed manufacturer and certifier (if applicable). The HPD Collaborative does not warrant any claim made herein, explicit or implicit. The HPD Standard is an “open standard” developed and managed by the HPD Collaborative, a nonprofit organization. For more information, visit hpdcollaborative.org.

CONTENT IN DESCENDING ORDER OF QUANTITY

All ingredients must be assessed for health warnings against Priority Hazard Lists, regardless of disclosure level. Priority Hazard Lists and information on the GreenScreen Benchmarks can be found at www.hpdcollaborative.org/hazardlists.

GS: GreenScreen Benchmark; RC: Recycled Content, PC: Post Consumer, PI: Post Industrial (Pre-consumer), BO: Both; Nano: comprised of nanoscale particles or nanotechnology

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS RN</th>
<th>% weight</th>
<th>GS</th>
<th>RC</th>
<th>Nano</th>
<th>Role</th>
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<tbody>
<tr>
<td>Hazard A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td>Primary Structural Element</td>
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<tr>
<td>Hazard B</td>
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<td></td>
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<tr>
<td>Hazard C</td>
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<td>Hazard D</td>
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<td>Hazard E</td>
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<td>99 - 100%</td>
<td>N</td>
<td>N</td>
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None found: No warnings found on HPD Priority lists

Our manufacturing processes accomplish 25% less embodied energy within the final product compared than the processes of engineered wood, and 300% less embodied energy than those of aluminum and steel. Lamboo products are on average 40% more stable than wood in moisture and temperature changes, 10 times stronger than wood in tension, and 3 times stronger than wood mechanically. Bamboo is a plant that dates back to prehistoric times and remains the fastest growing plant in the world. It is ideal for the demands of the construction industry. It is technically a grass and found on nearly every continent; it can grow in the mountains, the tropics, and even in the southern United States. There are nearly 1600 different species of bamboo. Although bamboo often resembles trees, it differs from them in growth tendencies and plant structure. Bamboo possesses two growth patterns: clumping or running root systems. These root systems create a natural bio filter for storm water runoff and the natural clumped balls prevent soil erosion. We have isolated 4 out of the 1600 species of bamboo to be used for all of our architectural, structural, and design applications. Bamboo sequesters 35% more carbon than its tree counter parts in a like-sized forest. Bamboo also produces 30% more oxygen than a like-sized timber forest. These differences allow bamboo to grow faster and straighter than any known tree species. Bamboo reaches the degree of its size in height and circumference in its 1st or 2nd year of life. We source Lamboo materials solely from mature plants, between their 6th and 8th year of life, to allow for optimal uniformity and strength.

CERTIFICATIONS AND COMPLIANCE

Certifying Party = First: Manufacturer’s self-declaration; Second: Verification by trade association or other interested party; Third: Verification by independent certifier (ideal).

Applicable facilities = Manufacturing sites to which testing applies.

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<thead>
<tr>
<th>Type</th>
<th>Standard or Certification</th>
<th>Certifier or Laboratory</th>
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</thead>
<tbody>
<tr>
<td>Certifying Party</td>
<td>Issue Date</td>
<td>Expiry Date</td>
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<td>Applicable Facilities</td>
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<td>Certificate URL</td>
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<tr>
<td>Notes</td>
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VOC Emissions Not tested
### ACCESSORY MATERIALS

This section is for additional products required by warranty or recommended by the manufacturer for installation (such as adhesives, fasteners, or factory coatings) or for maintenance, cleaning, or operations. Refer to Health Product Declarations, published separately, for a complete view of these products.

Note: This declaration is not intended to address hazards of the installation process.

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<thead>
<tr>
<th>Required or Recommended Product</th>
<th>URL for Companion Health Product Declaration</th>
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<tr>
<td>Condition when required or recommended and/or other notes</td>
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### NOTES

Lamboo, Inc. provides ecological performance products utilizing the most rapidly renewable resource on the planet: bamboo. Lamboo, Inc. works intimately with the most internationally recognized certification and testing bodies, such as ASTM (American Society of Testing Materials), ICC (International Code Council), CE (Conformité Européenne), UL (Underwriter's Laboratory), USDA Bio-Preferred Products, WDMA (Window & Door Manufacturing Association), as well as leading university testing laboratories, to expand unsurpassed quality throughout our product lines. Our collaborations allow for the streamlined specification of Lamboo's distinctive products into the projects and offerings of our global industry partners.