OUR APPROACH

SUSTAINABILITY MEETS AFFORDABILITY

Over the past decade, mass timber has become a growing force in North America due to its aesthetic, efficiency, and ecological benefits. The most common form of mass timber used for building is cross-laminated timber, or CLT. With roughly 75% of carbon sequestered in a mass timber building being stored in floor and roof slabs, CLT in these applications is an excellent pathway to reducing embodied carbon.

Sterling Structural is dedicated to providing an accessible mass timber option for the construction industry. Our TerraLam® CLT product line is a scalable, cost-competitive structural solution that has the potential to rapidly decarbonize our built environment while maintaining compatibility with other materials in mass timber or hybrid applications. As a domestically produced, renewable resource, TerraLam minimizes emissions associated with traditional construction while supporting local economies.

STANDARD, REPEATABLE DELIVERY

Sterling streamlines the design, fabrication, and installation process for CLT structural systems by utilizing a standard-format approach. Using in-house CNC capability, panels can be prefabricated and customized to project requirements as needed.

<table>
<thead>
<tr>
<th>Product</th>
<th>Length</th>
<th>Width</th>
<th>Thickness</th>
</tr>
</thead>
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<tr>
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<td>13.71</td>
<td>164.5</td>
<td>7.67</td>
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<td>Tolerance</td>
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<td>+/- 1/8”</td>
<td>+/- 1/16”</td>
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</tbody>
</table>
TERRALAM® CLT FOR BUILDINGS

PRIMARY APPLICATIONS
- Tight structural grids with shorter spans
- Scalable and modular designs
- Budget-conscious but user-driven projects
- Replacing steel decking and precast concrete

WHY STERLING?
- Accessible price point
- Panel sizes are compatible with various building types
- Faster lead times and robust logistics network
- Domestic sourcing and manufacturing

A healthier alternative to commodity building materials: TerraLam panels carry a Red List Free Declare® label through the International Living Future Institute, and our Environmental Product Declaration (EPD) is available for carbon-optimized projects. All panels are certified to the PRG 320 performance standard by the International Code Council.

MECHANICAL PROPERTIES

ASD Reference Design Values for Sterling TerraLam Laminations

<table>
<thead>
<tr>
<th>Grade</th>
<th>Major Strength Direction Lamination</th>
<th>Minor Strength Direction Lamination</th>
</tr>
</thead>
</table>
|       | $f_{b,0}$  
(ksi) | $E$  
(ksi) | $f_{v,0}$  
(ksi) | $f_{c,0}$  
(ksi) | $f_{s,90}$  
(ksi) | $E$  
(ksi) | $f_{s,90}$  
(ksi) | $f_{c,90}$  
(ksi) | $f_{v,90}$  
(ksi) |
| V3+   | 925 | 1.4 | 550 | 1,350 | 175 | 55 | 925 | 1.4 | 550 | 1,350 | 175 | 55 |

ASD Reference Design Values for Sterling TerraLam CLT Panels

<table>
<thead>
<tr>
<th>Grade</th>
<th>Layup ID</th>
<th>CLT Thickness (in)</th>
<th>Lamination Thickness in CLT Layup (in)</th>
<th>Major Strength Direction</th>
<th>Minor Strength Direction</th>
</tr>
</thead>
</table>
|       |          |                    | = | = | = | = | = | $F_{b,Seff,0}$  
(lb- ft/ft) | $E_{eff,0}$  
(10^6 lb-in²/ft) | $A_{eff,0}$  
(10^6 lb-in²/ft) | $V_{S,0}$  
(lb/ft) | $F_{b,Seff,90}$  
(lb- ft/ft) | $E_{eff,90}$  
(10^6 lb-in²/ft) | $A_{eff,90}$  
(10^6 lb-in²/ft) | $V_{S,90}$  
(lb/ft) |
| V3+   | TL300S   | 4.125 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 2.150 | 95 | 0.53 | 1.820 | 290 | 3.6 | 0.53 | 605 |
|       | TL500S   | 6.875 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 1.375 | 4.950 | 363 | 1.05 | 3.025 | 2,525 | 95 | 1.05 | 1,820 |

Tables are calculated in accordance with the Shear Analogy Method as defined by PRG 320-2019.
STERLING MAKES MASS TIMBER ACCESSIBLE

As the nation’s largest CLT manufacturer, Sterling has the high-speed manufacturing and extensive production capacity to provide CLT floor and roof systems as an affordable option for buildings of all sizes and occupancies. We offer a repeatable and standardized approach to design, manufacturing, and delivery that streamlines the collaborative process and eliminates redundancy. Having served industrial markets for over a decade, our robust logistics division is highly experienced in the scaled delivery of CLT. With Sterling, project teams can feel confident investing in CLT solutions for their buildings.

HOW WE DO IT

STANDARDIZED APPROACH
SPEED AND CAPACITY
ROBUST LOGISTICS