



## Comparisons of the Production Standards for Cross Laminated Timber (CLT) in Europe versus USA

<https://research.thinkwood.com/en/permalink/catalogue1705>

Author: Young, Timothy  
Barbu, Marius  
Hindman, Daniel  
Weissensteiner, Josef  
Tudor, Eugenia

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Topic: Market and Adoption

Keywords: Europe  
North America  
Manufacturing  
Standards

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria  
p. 4412-4419

### Summary:

Cross laminated timber (CLT) is a new engineered wood product that has experienced rapid growth and market acceptance for residential and non-residential construction in western and central Europe. Potential exists for rapid market adoption in North America if manufacturing capacities are developed...

Online Access: Free

### Resource Link

<http://hdl.handle.net/20.500.12708/172> 



# Development of Southern Pine Cross-Laminated Timber for Building Code Acceptance

<https://research.thinkwood.com/en/permalink/catalogue474>

Author: Hindman, Daniel  
Bouldin, John

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Topic: Acoustics and Vibration  
Fire  
Mechanical Properties  
Market and Adoption

Keywords: Southern Pine  
Fire Performance  
Acoustical Performance  
International Building Code

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

## Summary:

The current interest and growth of cross laminated timber (CLT) products has spurred interest in the manufacture of CLTs in the United States. The purpose of this paper is to explore the development of CLT materials from southern pine lumber commonly available in the United States.

Online Access: Free

## Resource Link

[http://scho.wshosted\\_files/wcte2014/1e/ABS575\\_Hindman\\_web.pdf](http://scho.wshosted_files/wcte2014/1e/ABS575_Hindman_web.pdf)



# Effect of Manufacturing Parameters on Mechanical Properties of Southern Yellow Pine Cross Laminated Timbers

<https://research.thinkwood.com/en/permalink/catalogue1314>

Author: Sharifnia, Houri  
Hindman, Daniel

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Topic: Mechanical Properties

Keywords: Manufacturing  
Southern Yellow Pine  
Polyurethane  
Five Point Bending Test  
Bending Stiffness  
Bending Strength  
Shear Stiffness

Language: English

Research Status: Complete

Series: Construction and Building Materials

Online Access: Free

## Resource Link

[https://www.researchgate.net/profile/Houri\\_Sharifniay\\_Dizboni/publication/319977923\\_Effect\\_of\\_manufacturing\\_parameters\\_on\\_mechanical\\_properties\\_of\\_southern\\_yellow\\_pine\\_cross\\_laminated\\_timbers/links/5a2f48954585155b617a251b/Effect-of-manufacturing-parameters-on-mechanical-properties-of-southern-yellow-pine-cross-laminated-timbers.pdf](https://www.researchgate.net/profile/Houri_Sharifniay_Dizboni/publication/319977923_Effect_of_manufacturing_parameters_on_mechanical_properties_of_southern_yellow_pine_cross_laminated_timbers/links/5a2f48954585155b617a251b/Effect-of-manufacturing-parameters-on-mechanical-properties-of-southern-yellow-pine-cross-laminated-timbers.pdf)



# Investigation of Hardwood Cross-Laminated Timber Design

<https://research.thinkwood.com/en/permalink/catalogue510>

Author: Beagley, Christopher  
Loferski, Joseph  
Hindman, Daniel  
Bouldin, John

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Topic: Mechanical Properties

Keywords: Low-Grade  
Hardwood

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

### Summary:

This study examines if Cross-Laminated Timber (CLT) design methods approved for softwood species can be used with hardwood species, specifically low-grade hardwoods. Analytical predictions from researcher-generated computer programs will be compared to d...

Online Access: Free

### Resource Link

[http://schd.ws/hosted\\_files/wcte2014/61/ABS179\\_Loferski\\_web.pdf](http://schd.ws/hosted_files/wcte2014/61/ABS179_Loferski_web.pdf)



## Lateral Resistance of Cross-Laminated Timber Panel-to-Panel Connections

<https://research.thinkwood.com/en/permalink/catalogue1724>

Author: Richardson, Benjamin  
Hindman, Daniel

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Shear Walls

Topic: Connections  
Mechanical Properties

Keywords: Strength  
Stiffness  
Panel-to-Panel  
Monotonic Loading  
Cyclic Loading  
Half-Lap  
Butt-Joint  
Steel Plate

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria  
p. 4655-4662

### Summary:

Cross laminated timber (CLT) connections in shearwalls require an understanding of the shear strength and stiffness of panel-to-panel connections within the wall. This research measures the strength and stiffness of three different panel-to-panel CLT connections considering both monotonic and cyclic loading. Connections included a...

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### Resource Link

<http://hdl.handle.net/20.500.12708/172>



## Mechanical Performance of Yellow-Poplar Cross Laminated Timber

<https://research.thinkwood.com/en/permalink/catalogue199>

Author: Mohamadzadeh, Milad  
Hindman, Daniel

Organization: Virginia Tech University

Year of Publication: 2015

Country of Publication: United States

Format: Report

Material: CLT (Cross-Laminated Timber)

Topic: Mechanical Properties

Keywords: Hardwood  
Poplar  
Shear Strength  
Four Point Bending Test  
Stiffness  
Strength  
Five Point Bending Test  
Delamination

Language: English

Research Status: Complete

Online Access: Free

### Resource Link

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<http://hdl.handle.net/10919/64863> 



# Mechanical Properties of Southern Pine Cross-Laminated Timber

<https://research.thinkwood.com/en/permalink/catalogue680>

Author: Hindman, Daniel  
Boulidin, John

Publisher: American Society of Civil Engineers

Year of Publication: 2014

Country of Publication: United States

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Beams

Topic: Mechanical Properties  
Moisture

Keywords: Bending Strength  
Bending Stiffness  
Shear Strength  
Delamination  
Length

Language: English

Research Status: Complete

Series: Journal of Materials in Civil Engineering

**Summary:**

Cross-laminated timber (CLT) is a novel wood building material suitable for floor, roof, and wall assemblies in low- and mid-rise construction as an alternative to concrete and steel. CLTs are considered to provide good seismic resistance, fast erection ...

Online Access: Free

**Resource Link**

[https://www.researchgate.net/profile/Daniel\\_Hindman/publication/277646296\\_Mechanical\\_Properties\\_of\\_Southern\\_Pine\\_Cross-Laminated\\_Timber/links/560d5a3a08ae2aa0be4a319b.pdf](https://www.researchgate.net/profile/Daniel_Hindman/publication/277646296_Mechanical_Properties_of_Southern_Pine_Cross-Laminated_Timber/links/560d5a3a08ae2aa0be4a319b.pdf)