



Acoustic Impact Testing and Waveform Analysis for Damage Detection in Glued Laminated Timber

<https://research.thinkwood.com/en/permalink/catalogue771>

Author: Feng Xu
Xiping Wang
Marko Teder
Yunfei Liu

Publisher: De Gruyter

Year of Publication: 2017

Country of Publication: Germany

Format: Journal Article

Material: Glulam (Glue-Laminated Timber)

Application: General Application

Topic: Acoustics and Vibration
Serviceability

Keywords: Decay
Delamination
Damage Detection
Moment Analysis
Wavelet Transform
Acoustic Signals

Language: English


Research Status: Complete

Series: Holzforschung

ISSN: 1437-434X

Online Access: Payment Required

Resource Link

<https://doi.org/10.1515/hf-2016-0237> 



Advanced Wood Product Manufacturing Study for Cross-Laminated Timber Acceleration in Oregon & SW Washington, 2017

<https://research.thinkwood.com/en/permalink/catalogue715>

Organization: Oregon BEST
Year of Publication: 2017
Country of Publication: United States
Format: Report
Material: CLT (Cross-Laminated Timber)
Application: General Application
Topic: Market and Adoption
Keywords: Market
US
Economic Impact
Language: English
Research Status: Complete
Online Access: Free

Resource Link

http://oregonbest.org/fileadmin/media/Mass_Timber/Accelerating_CLT_Manufacturing_in_Oregon__SW_Washington_2017__Oregon_BEST_.pdf



An Approach to CLT Diaphragm Modeling for Seismic Design with Application to a U.S. High-Rise Project

<https://research.thinkwood.com/en/permalink/catalogue1710>

Author: Scott Breneman
Eric McDonnell
Reid Zimmerman

Organization: WoodWorks

Year of Publication: 2017

Country of Publication: United States

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems
Floors

Topic: Design and Systems
Seismic

Keywords: US
Model
Diaphragm
High-Rise

Language: English

Research Status: Complete

Online Access: Free

Resource Link

<http://www.woodworks.org/wp-content/uploads/Approach-to-CLT-Diaphragm-Modeling-for-Seismic-WoodWorks-Jan-2017.pdf>



Apparent Sound Insulation in Cross-Laminated Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1276>

Author: Christoph Hoeller
Jeffrey Mahn
Dave Quirt
Stefan Schoenwald
Berndt Zeitler

Organization: National Research Council of Canada

Year of Publication: 2017

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Acoustics and Vibration
Connections

Keywords: Airborne Sound Transmission
Adhesives

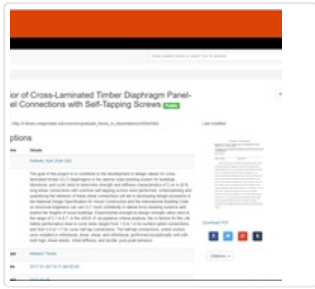
Language: English

Research Status: Complete

Online Access: Free

Resource Link

<http://doi.org/10.4224/23002009>



Behavior of Cross-Laminated Timber Diaphragm Panel-to-Panel Connections with Self-Tapping Screws

<https://research.thinkwood.com/en/permalink/catalogue1422>

Author: Kyle Sullivan
Organization: Oregon State University
Year of Publication: 2017
Country of Publication: United States
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Wood Building Systems
Topic: Seismic
Keywords: Lateral Load Resisting System
Monotonic Tests
Cyclic Tests
Strength
Stiffness
Self-Tapping Screws
International Building Code
Language: English
Research Status: Complete
Online Access: Free

Resource Link

http://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/n009w540c



Bending Tests on Timber-Concrete Composite Members Made of Beech Laminated Veneer Lumber with Notched Connection

<https://research.thinkwood.com/en/permalink/catalogue1349>

Author: Lorenzo Boccadoro
Simon Zweidler
René Steiger
Andrea Frangi

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: Timber-Concrete Composite
LVL (Laminated Veneer Lumber)

Application: General Application

Topic: Mechanical Properties

Keywords: Notched Connections
Analytical Model
Vertical Load
Ductility
Compressive Failure
Bending Test

Language: English

Research Status: Complete

Series: Engineering Structures

Online Access: Payment Required

Resource Link

<https://doi.org/10.1016/j.engstruct.2016.11.029>



Bonding Quality of Industrially Produced Cross-Laminated Timber (CLT) as Determined in Delamination Tests

<https://research.thinkwood.com/en/permalink/catalogue1346>

Author: Markus Knorz
Stefan Torno
Jan-Willem Van de Kuilen

Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Mechanical Properties

Keywords: Delamination
Spruce
Number of Layers
Layer Thickness
Shape

Language: English

Research Status: Complete

Series: Construction and Building Materials

Online Access: Payment Required

Resource Link

<https://doi.org/10.1016/j.conbuildmat.2016.12.057>



Bonding Strength Test Method Assessment for Cross-Laminated Timber Derived Stressed-Skin Panels (CLT SSP)

<https://research.thinkwood.com/en/permalink/catalogue1404>

Author: Emilio Luengo
Eva Hermoso
Juan Carlos Cabrero
Francisco Arriaga

Publisher: Springer Netherlands

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Mechanical Properties

Keywords: Stressed-Skin Panels
Shear Strength
Glue Lines
Shear Tests
Bending Tests
Bonding

Language: English

Research Status: Complete

Series: Materials and Structures

ISSN: 1871-6873

Online Access: Payment Required

Resource Link

<https://doi.org/10.1617/s11527-017-1069-8>



Capacity-Based Design for Cross-Laminated Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1255>

Author: Md Shahnewaz
Thomas Tannert
Shahria Alam
Marjan Popovski

Organization: Structures Congress

Publisher: American Society of Civil Engineers

Year of Publication: 2017

Country of Publication: United States

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems
Shear Walls

Topic: Mechanical Properties
Connections

Keywords: In-Plane Stiffness
Strength
Non-Linear Springs
Finite Element Analysis
Hysteretic Behaviour
Cyclic Loading

Language: English

Conference: Structures Congress 2017

Research Status: Complete

Notes: April 6–8, 2017, Denver, Colorado

Abstract:

The use of cross-laminated timber (CLT) in residential and non-residential buildings is becoming increasingly popular in North America. While the 2016 supplement to the 2014 edition of the Canadian Standard for Engineering Design in Wood, CSAO86, provides provisions for CLT structures used in platform type applications, it does not provide guidance for the in-plane...

Online Access: Payment Required

Resource Link

<https://doi.org/10.1061/9780784480427.034>



A Comparison of the Energy Saving and Carbon Reduction Performance between Reinforced Concrete and Cross-Laminated Timber Structures in Residential Buildings in the Severe Cold Region of China

<https://research.thinkwood.com/en/permalink/catalogue1207>

Author: Haibo Guo
Ying Liu
Yiping Meng
Haoyu Huang
Cheng Sun
Yu Shao

Publisher: MDPI

Year of Publication: 2017

Country of Publication: Switzerland

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Energy Performance
Environmental Impact

Keywords: Energy Consumption
Carbon Emissions
Residential
Severe Cold Regions
Simulation
Reinforced Concrete
Life-Cycle Assessment

Language: English

Research Status: Complete

Series: Sustainability

ISSN: 2071-1050

Abstract:

This paper aims to investigate the energy saving and carbon reduction performance of cross-laminated timber residential buildings in the severe cold region of China through a computational simulation approach. The authors selected Harbin as the simulation environment, designed reference residential...

Online Access: Free

Resource Link

<https://doi.org/10.3390/su9081426>