

Advanced Methods of Encapsulation

<https://research.thinkwood.com/en/permalink/catalogue41>

Author: Lindsay Ranger
Audrey Roy-Poirier

Organization: FPinnovations

Year of Publication: 2015

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Floors

Topic: Fire

Keywords: Codes
Encapsulation
Type X Gypsum Board
National Building Code of Canada
Tall Wood

Language: English

Abstract:

This project aims to support the construction of tall wood buildings by identifying encapsulation methods that provide adequate protection of mass timber elements; the intention is that these methods could potentially be applied to mass timber elements s...

Online Access: Free

Resource Link

http://www.bcfii.ca/system/files/reports/public/fii412-2014-15-fpinnovations-advanced-methods-of-encapsulation_0.pdf



Analysis of Cross-Laminated Timber Charring Rates Upon Exposure to Non-Standard Heating Conditions

<https://research.thinkwood.com/en/permalink/catalogue136>

Author: Alastair Bartlett
Rory Hadden
Luke Bisby
Angus Law

Organization: Fire and Materials

Year of Publication: 2015

Country of Publication: United States

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Fire

Keywords: Charring Rate
Heat Release Rate
Fire Resistance

Language: English

Conference: Fire and Materials 2015

Notes: February 2-4, 2015, San Francisco, United States

Online Access: Free

Resource Link

<https://www.researchgate.net/publication/270875737> 



An Improved Model for the Fire Design of Cross Laminated Timber in Bending

<https://research.thinkwood.com/en/permalink/catalogue1940>

Author: Joachim Schmid
Michael Klippel
Reto Fahrni
Andrea Frangi
Mattia Tiso
Alar Just
Norman Werther

Year of Publication: 2018

Country of Publication: Korea

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Fire

Keywords: Fire Resistance
Model
Zero-Strength Layer
Cross-Section
Bending
Strength
Stiffness

Language: English

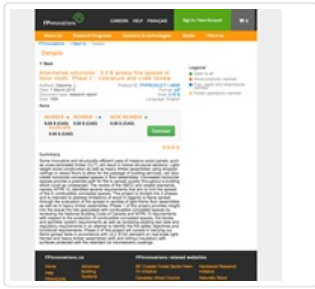
Conference: World Conference on Timber Engineering

Notes: August 20-23, 2018, Seoul, Republic of Korea

Online Access: Free

Resource Link

<https://indico.conference4me.psnr.pl/event/171/session/337/contribution/88/material/paper/1.pdf>



Assess Fire Spread in Floor Voids

<https://research.thinkwood.com/en/permalink/catalogue796>

Author: Lindsay Ranger
Organization: FPInnovations
Year of Publication: 2013
Country of Publication: Canada
Format: Report
Material: CLT (Cross-Laminated Timber)
Light Frame (Lumber+Panels)
Application: Floors
Topic: Fire
Keywords: National Building Code of Canada
Flame Spread
Language: English

Abstract:

Some innovative and structurally efficient uses of massive wood panels, such as cross-laminated timber (CLT), will result in hollow structural sections. Light-weight wood construction as well as heavy timber assemblies using dropped ceilings or raised fl...

Online Access: Free

Resource Link

<https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/E4811.pdf#.WlkuW3anGuk>



Assessing the Adhesive Performance in CLT Exposed to Fire

<https://research.thinkwood.com/en/permalink/catalogue1945>

Author: Michael Klippel
Joachim Schmid
Reto Fahrni
Andrea Frangi

Year of Publication: 2018

Country of Publication: Korea

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Floors
Walls

Topic: Connections
Fire

Keywords: Adhesive
Fire Tests
Polyurethane
1C PUR
Melamine Urea Formaldehyde

Language: English

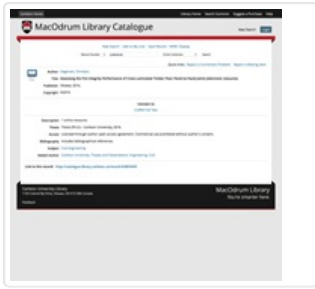
Conference: World Conference on Timber Engineering

Notes: August 20-23, 2018, Seoul, Republic of Korea

Online Access: Free

Resource Link

<https://indico.conference4me.psnk.pl/event/171/session/388/contribution/324/material/paper/1.pdf>



Assessing the Fire Integrity Performance of Cross-Laminated Timber Floor Panel-To-Panel Joints

<https://research.thinkwood.com/en/permalink/catalogue185>

Author: Christian Dagenais
Organization: Carleton University
Year of Publication: 2016
Country of Publication: Canada
Publication:
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Floors
Topic: Connections
Fire
Keywords: Finite Element Model
Thickness
Codes
Panel-to-Panel
Joints
Canada
US
Fire Resistance
Language: English

Abstract:

During the past few years, a relatively new technology has emerged in North America and changed the way professionals design and build wood structures: Cross-laminated Timber (CLT). CLT panels are manufactured in width ranging from 600 mm to 3 m. As such...

Online Access: Free

Resource Link

<http://catalogue.library.carleton.ca/record=b3859439>



Assessing The Flammability of Mass Timber Components: A Review

<https://research.thinkwood.com/en/permalink/catalogue87>

Author: Jim Mehaffey
Christian Dagenais

Organization: FPInnovations

Year of Publication: 2014

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)
Glulam (Glue-Laminated Timber)
LSL (Laminated Strand Lumber)
LVL (Laminated Veneer Lumber)
PSL (Parallel Strand Lumber)

Application: Wood Building Systems

Topic: Fire

Keywords: National Building Code of Canada
Flame Spread
Model
Cone Calorimeter Testing
Buildings

Language: English

Abstract:
In recent decades, the wood industry has developed a number of innovative mass timber products. Among others, structural composite lumber (SCL) products, such as parallel strand lumber (PSL), laminated strand lumber (LSL) and laminated veneer lumber (LVL...

Online Access: Free

Resource Link

<http://www.bcfii.ca/system/files/reports/public/fii407-2013-14-fpinnovations-assessing-the-flammability-of-mass-timber-components-a-review.pdf> [↗](#)



Auto-Extinction of Engineered Timber as a Design Methodology

<https://research.thinkwood.com/en/permalink/catalogue1676>

Author: Alastair Bartlett
Rory Hadden
Luke Bisby
Barbara Lane

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Fire

Keywords: Extinction
Fire Propagation Apparatus

Language: English

Conference: World Conference on Timber Engineering

Notes: August 22-25, 2016, Vienna, Austria
p. 3934-3941

Abstract:

Engineered timber products such as cross-laminated timber (CLT) are gaining popularity with designers due to attractive aesthetic, sustainability, and constructability credentials. The fire behaviour of such materials is a key requirement for buildings formed predominantly of exposed, structural timber elements. Whilst design guidance focuses...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649399>



Building Envelope Summary: Hygrothermal Assessment of Systems for Mid-Rise Wood Buildings

<https://research.thinkwood.com/en/permalink/catalogue250>

Author: Khaled Abdulghani
Steve Cornick
Bruno Di Lenardo
Gnanamurugan Ganapathy
Michael Lacasse
Wahid Maref
Travis Moore
Phalguni Mukhopadhyaya
Mike Nicholls
Hamed Saber
Michael Swinton
David van Reenen

Organization: National Research Council of Canada

Year of Publication: 2014

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)
Light Frame (Lumber+Panels)

Application: Wood Building Systems

Topic: Design and Systems
Fire
Moisture

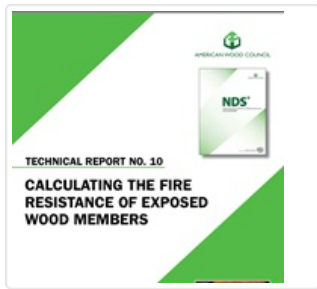
Keywords: National Building Code of Canada
Mid-Rise
Building Envelopes

Language: English

Online Access: Free

Resource Link

<http://doi.org/10.4224/21274555>



Calculating the Fire Resistance of Exposed Wood Members

<https://research.thinkwood.com/en/permalink/catalogue220>

Organization: American Wood Council
Year of Publication: 2015
Country of Publication: United States
Format: Report
Material: CLT (Cross-Laminated Timber)
Application: General Application
Topic: Fire
Keywords: Charring
Codes
Standards
Language: English

Abstract:

The superior fire performance of timbers can be attributed to the charring effect of wood. As wood members are exposed to fire and the wood begins to burn, a char layer is formed. The char layer acts as an insulator and protects the core of the wood sect...

Copyright: Courtesy, American Wood Council, Leesburg, VA

Online Access: Free

Resource Link

<http://www.awc.org/pdf/codes-standards/publications/tr/AWC-TR10-1510.pdf> ↗