

Accelerated Curing of Large Scale Glued-in-Rods

<https://research.thinkwood.com/en/permalink/catalogue2018>

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Year of Publication: 2018

Country of Publication: South Korea

Format: Conference Paper

Material: LVL (Laminated Veneer Lumber)

Topic: Mechanical Properties
Connections

Keywords: Beech
Glued-In Rods

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Online Access: Free

Resource Link

https://www.researchgate.net/publication/328064778_Accelerated_curing_of_large_scale_glued-in-rods



Accuracy Evaluation of Gamma-Method for Deflection Prediction of Partial Composite Beams

<https://research.thinkwood.com/en/permalink/catalogue1911>

Author: Atashipour, Seyed
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Year of Publication: 2018

Country of Publication: Korea

Format: Conference Paper

Material: Timber-Concrete Composite

Application: Wood Building Systems
Beams

Topic: Mechanical Properties
Design and Systems

Keywords: Shear Deformation
Exact Solution
Finite Element (FE) Model
Numerical Analysis

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

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

Online Access: Free

Resource Link

https://www.researchgate.net/publication/327306840_Accuracy_evaluation_of_Gamma-method_for_deflection_prediction_of_partial_composite_beams



Accurate Strength Parameters for Fasteners with Examples for Ring Shank Nails

<https://research.thinkwood.com/en/permalink/catalogue1510>

Author: Munch-Andersen, Jørgen
Svensson, Staffan

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: LVL (Laminated Veneer Lumber)

Topic: Connections
Mechanical Properties

Keywords: Withdrawal Test
Ring Shank Nails
Fasteners
Strength

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 344-352

Summary:

Strength parameters for fasteners determined in accordance with the methods prescribed for the European CE-marking leads to quite different values for seemingly similar products from different manufactures. The results are hardly repeatable, to some extent due to difficulties in selecting representative timber samples for the testing. Beside this uncertainty, the declared values available to the designer concerns only structural timber, so no strength parameters are available for common engineered wood products such as LVL or plywood

Online Access: Free

Resource Link

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



Acoustic Performance of Timber and Timber-Concrete Composite Floors

<https://research.thinkwood.com/en/permalink/catalogue684>

Author: Schluessel, Marc
Shrestha, Rijn
Crews, Keith

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

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

Application: Floors

Topic: Acoustics and Vibration

Keywords: New Zealand
Australia
Building Code of Australia
Sound Insulation

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

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

Summary:

A major problem in light-weight timber floors is their insufficient performance coping with impact noise in low frequencies. There are no prefabricated solutions available in Australia and New Zealand. To rectify this and enable the implementation of light-weight timber floors, a structural floor was designed and built in laminated veneer lumber (LVL). The floor was evaluated in a laboratory setting based on its behaviour and then modified with suspended ceilings and different floor toppings. Twenty-nine different floor compositions were tested. The bare floor could not reach the minimum requirement set by the Building Code of Australia (BCA) but with additional layers, a sufficient result of $R'_{w}+C_{tr}$ 53 dB and $L'_{nT,w} + C_{I} 50$ dB was reached. Doubling of the concrete mass added a marginal improvement. With concrete toppings and suspended ceiling it is possible to reach the goal in airborne and impact sound insulation. The best result was achieved by combining of additional mass and different construction layers.

Online Access: Free

Resource Link

http://sched.ws/hosted_files/wcte2014/68/ABS139_Crews_web.pdf



Adaptation of Advanced High R-Factor Bracing Systems into Heavy Timber Frames

<https://research.thinkwood.com/en/permalink/catalogue1760>

Author: Gilbert, Colin
Erochko, Jeffrey

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Glulam (Glue-Laminated Timber)

Application: Frames

Topic: Seismic
Design and Systems
Mechanical Properties

Keywords: Quasi-Static
Cyclic Testing
Ductility
Damping Devices
R-factors

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5068-5077

Summary:

Timber provides attractive earthquake performance characteristics for regions of high seismic risk, particularly its high strength-to-weight ratio; however, current timber structural systems are associated with relatively low design force reduction factors due to their low inherent ductility when compared to high-performance concrete and steel...

Online Access: Free

Resource Link

<http://hdl.handle.net/20.500.12708/172> [↗](#)



Adhesive-Bonded Timber-Concrete Composites - Experimental Investigation of Thermal-Hygric Effects

<https://research.thinkwood.com/en/permalink/catalogue1519>

Author: Seim, Werner
Eisenhut, Lars
Kühlborn, Sonja

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Timber-Concrete Composite

Topic: Serviceability
Mechanical Properties

Keywords: Climate
Long-term
Shear Strength
Deformation
Temperature
Moisture Content

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 597-605

Summary:

The advantages of the two different building construction materials, timber and concrete, can be used effectively in adhesive-bonded timber-concrete composite constructions. The long-term behavior was investigated experimentally on small-scale shear and bond specimens under artificial, alternating climatic conditions and on fullscale specimens under natural climatic conditions for an application in construction practice. The development of the shear strength and the deformation behavior under permanent loads were studied, focusing on the different material behavior of wood and concrete regarding changes in temperature and moisture. The general applicability of adhesivebonded timber-concrete composites in construction practice was proved in the investigations.

Online Access: Free

Resource Link

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



Adhesive Bonding of Timber and Glass in Load-Bearing Facades - Evaluation of the Ageing Behaviour

<https://research.thinkwood.com/en/permalink/catalogue1742>

Author: Nicklisch, Felix
Weller, Bernhard

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Timber-Glass Composite

Application: Hybrid Building Systems

Topic: Connections
Serviceability

Keywords: Adhesives
Façade
Load Bearing

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 4913-4920

Summary:

Wooden constructions are on the rise again – encouraged by a strong trend towards sustainable and resource efficient buildings. Load-bearing timber-glass composite elements – a novel concept to use the in-plane loadbearing potential of glass – could contribute to a more efficient use of materials in façades. The current study relates to...

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<http://hdl.handle.net/20.500.12708/172> [↗](#)



Advanced Topics in Seismic Analysis and Design of Mid-Rise Wood-Frame Structures

<https://research.thinkwood.com/en/permalink/catalogue1773>

Author: Ni, Chun
Popovski, Marjan
Wang, Jasmine
Karacabeyli, Erol

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Light Frame (Lumber+Panels)

Application: Wood Building Systems

Topic: Design and Systems

Keywords: Mid-Rise
Dynamic Analysis
Deflection
Diaphragm
National Building Code of Canada
Capacity-Based Design

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5343-5351

Summary:

The following topics in the field of seismic analysis and design of mid-rise (5- and 6-storey) wood-frame buildings are included in this paper: Determination of the building period, linear dynamic analysis of wood-frame structures, deflections of stacked multi-storey shearwalls, diaphragm classification, capacity-based design for woodframe...

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Resource Link

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



Advantages and Disadvantages of Timber Glass Composite Beams

<https://research.thinkwood.com/en/permalink/catalogue1764>

Author: Držecnik, Mateja
Premrov, Miroslav
Štrukelj, Andrej

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Timber-Glass Composite

Application: Beams

Topic: Design and Systems

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 5199-5207

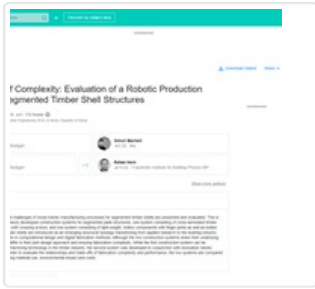
Summary:

Tendency in modern architecture is to increase the glass surface in buildings towards high living quality and low energy consumption. The main goal of this research is to describe the structural performance of glass components by joining the glass with supplementary material such as timber. Composite beams capable of carrying loads and resisting...

Online Access: Free

Resource Link

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



Affordances of Complexity: Evaluation of a Robotic Production Process for Segmented Timber Shell Structures

<https://research.thinkwood.com/en/permalink/catalogue1913>

Author: Krieg, Oliver David
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Groenewolt, Abel
Horn, Rafael
Knippers, Jan
Menges, Achim

Publisher: Intergrated Digital Conference (INDICO)

Year of Publication: 2018

Country of Publication: Korea

Format: Conference Paper

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

Application: Shell Structures

Topic: Design and Systems

Keywords: Robotic Fabrication
Computational Design

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

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

Online Access: Free

Resource Link

https://www.researchgate.net/publication/328531718_Affordances_of_Complexity_Evaluation_of_a_Robotic_Production_Process_for_Segmented_Timber_Shell_Structures