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

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

Author:	Felix Nicklisch
	Bernhard Weller
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
Notes:	August 22-25, 2016, Vienna, Austria p. 4913-4920

Abstract:

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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Advantages and Disadvantages of Timber Glass Composite Beams

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

Author:	Mateja Držecnik
	Miroslav Premrov
	Andrej Štrukelj
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
Notes:	August 22-25, 2016, Vienna, Austria p. 5199-5207

Abstract:

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...

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Behavior of Load-Bearing Timber-Glass-Composites Facade in Case of Fire | Fire Protection Concepts

https://research.thinkwood.com/en/permalink/catalogue1981

Author:	Alireza Fadai
	Matthias Rinnhofer
	Andreas Schleicher
	Frank Peter
	Thomas Sicay
Year of Publication:	2018
Country of Publication:	Korea
Format:	Conference Paper
Material:	Timber-Glass Composite
Application:	Frames
	Wood Building Systems
Topic:	Fire
Keywords:	Fire Protection
	Fire Safety
	Structural
	Connections
	Multifunctional Facades
Language:	English
Conference:	World Conference on Timber Engineering
Online Access:	Free

Resource Link

https://indico.conference4me.psnc.pl/event/171/session/379/contribution/290/material/paper/1.pdf

Design and Dimensioning of a Complex Timber-Glass Hybrid Structure: The IFAM Pedestrian Bridge

https://research.thinkwood.com/en/permalink/catalogue1797

Author:	Till Vallee
	Cordula Grunwald
	Lena Milchert
	Simon Fecht
Publisher:	Springer International Publishing
Year of Publication:	2016
Country of Publication:	Switzerland
Format:	Journal Article
Material:	Timber-Glass Composite
Application:	Bridges and Spans
	Hybrid Building Systems
	Wood Building Systems
Topic:	Design and Systems
Keywords:	Joint
	Bonding
	Standards
	Codes
	Adhesive Connection
Language:	English
Series:	Glass Structures & Engineering
ISSN:	2363-5142
Online Access:	Free

Resource Link

https://doi.org/10.1007/s40940-016-0007-4

Experimental and Numerical Investigations of Timber-Glass Shear Walls

https://research.thinkwood.com/en/permalink/catalogue1763

Author:	Rok Frangež
	Boštjan Ber
	Miroslav Premrov
Year of Publication:	2016
Country of Publication:	Austria
Format:	Conference Paper
Material:	Timber-Glass Composite
Application:	Shear Walls
Topic:	Energy Performance
	Mechanical Properties
Keywords:	Finite Element Model
	Load Bearing Capacity
	Mechanical Tests
	Racking Resistance
	Adhesives
	Polyurethane
Language:	English
Conference:	World Conference on Timber Engineering
Notes:	August 22-25, 2016, Vienna, Austria p. 5191-5198

Abstract:

Building large-sized glazing into timber walls has significantly grown over the last years, however when combined, the structural behaviour of both elements can be rather complicated. This is one of the major reasons for this investigation. In order to design energy-efficient timber-frame buildings with enlarged fixed glazing, it is of primary...

Online Access: Free

Resource Link

http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650053

Experimental Testing of Load-Bearing Timber–Glass Composite Shear Walls and Beams

https://research.thinkwood.com/en/permalink/catalogue860

Author:	Marcin Kozlowski
	Michael Dorn
	Erik Serrano
Publisher:	Taylor&Francis Online
Year of Publication:	2015
Country of Publication:	United Kingdom
Format:	Journal Article
Material:	Timber-Glass Composite
Application:	Shear Walls
	Beams
Keywords:	Shear Loading
	Vertical Loading
	Adhesives
	Four Point Bending Test
	Load Carrying Capacity
Language:	English
Series:	Wood Material Science & Engineering
Online Access:	Payment Required

Resource Link

http://dx.doi.org/10.1080/17480272.2015.1061595

Geometrical Aspects for the Design of Prefabricated Load-Bearing Timber-Glass-Facades

https://research.thinkwood.com/en/permalink/catalogue1746

Author:	Khaled Saleh Pascha
	Vitalija Pascha
	Wolfgang Winter
Year of Publication:	2016
Country of Publication:	Austria
Format:	Conference Paper
Material:	Timber-Glass Composite
Application:	Hybrid Building Systems
Topic:	Design and Systems
	Mechanical Properties
Keywords:	Façade
	Prefabricated
	Load-Bearing Capacity
Language:	English
Conference:	World Conference on Timber Engineering
Notes:	August 22-25, 2016, Vienna, Austria p. 4947-4955

Abstract:

The considerable increase in the architectural demands for highly transparent and load-bearing structures have recently resulted in the development of an innovative hybrid structure. This article provides a review of design parameters for Timber-Glass composite facades. The design/architectural question, which arose in the project, was how...

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Glass, Timber and Adhesive Joints – Innovative Load Bearing Building Components

https://research.thinkwood.com/en/permalink/catalogue909

Author:	Louise Blyberg
	Maria Lang
	Karin Lundstedt
	Matilda Schander
	Erik Serrano
	Magnus Silfverhielm
	Christina Stålhandske
Publisher:	ScienceDirect
Year of Publication:	2014
Country of Publication:	Netherlands
Format:	Journal Article
Material:	Timber-Glass Composite
Application:	Passive House
	Beams
	Shear Walls
Topic:	Energy Performance
	Mechanical Properties
Keywords:	LCA
Language:	English
Series:	Construction and Building Materials
Online Access:	Payment Required

Resource Link

http://dx.doi.org/10.1016/j.conbuildmat.2014.01.045

Highly Energy Dissipative and Ductile Timber-Glass Hybrid Element

https://research.thinkwood.com/en/permalink/catalogue1744

Author:	Vlatka Rajcic
	Roko Žarnic
Year of Publication:	2016
Country of Publication:	Austria
Format:	Conference Paper
Material:	CLT (Cross-Laminated Timber)
	Timber-Glass Composite
Application:	Hybrid Building Systems
Topic:	Mechanical Properties
	Seismic
Keywords:	Glued-In Rods
	Ductility
	Energy Dissipation
	Vertical Loads
	Cyclic Loads
	Horizontal Loads
	Racking Test
	Stiffness
Language:	English
Conference:	World Conference on Timber Engineering
Notes:	August 22-25, 2016, Vienna, Austria p. 4930-4937

Abstract:

CLT frames infilled with load-bearing glass sheets represent an innovative, hybrid structural element that can serve as load-bearing panel carrying load in both vertical and lateral direction. It can be used as a part of the prefabricated timber house or as a strengthening structural element in an existing timber building or the supporting...

Online Access: Free

Resource Link

http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650012

A Numerical and Experimental Approach to Cold-Bent Timber-Glass Composite Elements

https://research.thinkwood.com/en/permalink/catalogue1798

Author:	Felix Nicklisch
	Tim Greulich
	Bernhard Weller
Publisher:	Springer International Publishing
Year of Publication:	2018
Country of Publication:	Switzerland
Format:	Journal Article
Material:	Timber-Glass Composite
Application:	Wood Building Systems
	Hybrid Building Systems
	General Application
Topic:	Mechanical Properties
	Design and Systems
Keywords:	Bending
	Cold Bending
	Joints
	Model
	Experimental Tests
	Structural Behavior
Language:	English
Series:	Glass Structures & Engineering
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