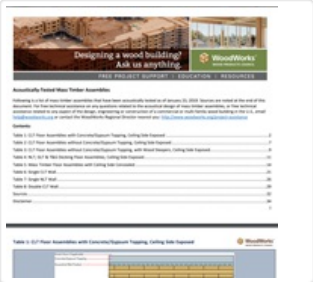
Acoustical Guide: Acoustic Research Report on Mass Timber Buildings

https://research.thinkwood.com/en/permalink/catalogue1839

Organization:	AcoustiTECH
Editor:	David Dompierre
	Samuel Garant
Publisher:	AcoustiTECH
Year of Publication:	2018
Country of Publication:	Canada
Format:	Report
Material:	CLT (Cross-Laminated Timber)
	Other Materials
Application:	Floors
Topic:	Acoustics and Vibration
Keywords:	Mass Timber
	Sound Absorption
	Impact Sound Insulation
Language:	English
Research Status:	Complete
Online Access:	Free

Resource Link

https://www.acousti-tech.com/Design/PDF/mass-timber-guide.pdf



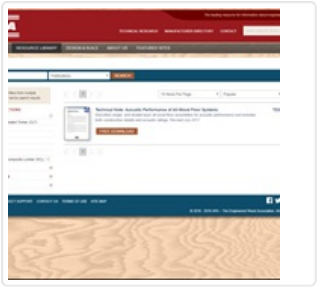
Acoustically-Tested Mass Timber Assemblies

https://research.thinkwood.com/en/permalink/catalogue1874

Organization:	WoodWorks
Year of Publication:	2019
Country of Publication:	United States
Format:	Report
Material:	CLT (Cross-Laminated Timber) NLT (Nail-Laminated Timber) Glulam (Glue-Laminated Timber)
Application:	Floors Walls
Topic:	Acoustics and Vibration
Keywords:	Mass Timber Sound Transmission Class Impact Isolation Class Assembly
Language:	English
Research Status:	Complete
Online Access:	Free

Resource Link

http://www.woodworks.org/wp-content/uploads/Acoustically-Tested-Mass-Timber-Assemblies-WoodWorks.pdf



Acoustic Performance of All-Wood Floor Systems

https://research.thinkwood.com/en/permalink/catalogue1931

Organization:	APA
Year of Publication:	2017
Country of Publication:	United States
Format:	Report
Material:	Light Frame (Lumber+Panels)
Application:	Floors
Topic:	Acoustics and Vibration
Keywords:	Sound Transmission Class
	Impact Isolation Class
	Code
Language:	English
Research Status:	Complete
Online Access:	Free

Resource Link

https://www.apawood.org/publication-search?q=T230&tid=1

Acoustic Performance of Timber and Timber-Concrete Composite Floors

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

Author:	Schluessel, Marc
	Shrestha, Rijun
	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

Abstract:

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 lig...

Online Access:	Free

Resource Link

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

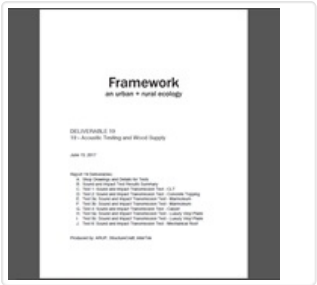
Acoustics: Sound Insulation in Mid-Rise Wood Buildings

https://research.thinkwood.com/en/permalink/catalogue37

Author:	Schoenwald, Stefan
	Zeitler, Berndt
	King, Frances
	Sabourin, Ivan
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:	Floors
	Walls
Topic:	Acoustics and Vibration
Keywords:	Acoustics
	Mid-Rise
	Sound Insulation
Language:	English
Research Status:	Complete
Online Access:	Free

Resource Link

http://doi.org/10.4224/21274579



Acoustic Testing and Wood Supply for Framework Office Building in Portland, OR

https://research.thinkwood.com/en/permalink/catalogue1830

Organization:	ARUP
	StructureCraft
	InterTek
Year of Publication:	2017
Country of Publication:	United States
Format:	Report
Material:	CLT (Cross-Laminated Timber)
Application:	Floors
	Ceilings
	Walls
	Roofs
	Wood Building Systems
Topic:	Acoustics and Vibration
Keywords:	Sound Transmission
	Impact Noise Transmission
	Concrete Topping
Language:	English
Research Status:	Complete
Series:	Framework: An Urban + Rural Design

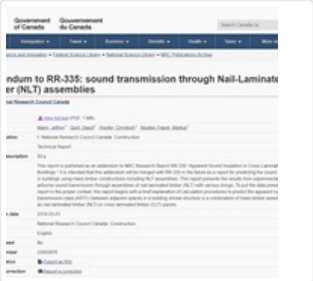
Abstract:

A. Shop Drawings and Details for Tests
B. Sound and Impact Test Results Summary
C. Test 1: Sound and Impact Transmission Test - CLT
D. Test 2: Sound and Impact Transmission Test - Concrete Topping
E. Test 3a: Sound and Impact Transmission Test - Marmoleum
F. Test 3b: Sound and Impact Transmission Test - Marmoleum
G. Test 4: Sound and Impact Transmission Test - Carpet
H. Test 5a: Sound and Impact Transmission Test - Luxury Vinyl Plank
I. Test 5b: Sound and Impact Transmission Test - Luxury Vinyl Plank
J. Test 6: Sound and Impact Transmission Test - Mechanical Roof

Online Access:	Free

Resource Link

https://www.thinkwood.com/wp-content/uploads/2018/10/19-Framework-Acoustic-Testing-and-Wood-Supply.pdf



Addendum to RR-335: Sound Transmission Through Nail-Laminated Timber (NLT) Assemblies

https://research.thinkwood.com/en/permalink/catalogue1868

Author:	Mahn, Jeffrey
	Quirt, David
	Hoeller, Christoph
	Mueller-Trapet, Markus
Organization:	National Research Council of Canada
Publisher:	National Research Council Canada. Construction
Year of Publication:	2018
Country of Publication:	Canada
Format:	Report
Material:	NLT (Nail-Laminated Timber)
Application:	Floors
	Walls
Topic:	Acoustics and Vibration
Keywords:	Sound Insulation
	Assembly
	Sound Transmission Class
Language:	English
Research Status:	Complete
Online Access:	Free

Resource Link

https://nrc-publications.canada.ca/eng/view/object/?id=9e3b39be-e0ed-415b-9649-3e7ec228f52c

Adequate Impact Sound Protection in Light Construction and Solid Floors – Sequence of Layers. Materials Selection and Dimensioning

https://research.thinkwood.com/en/permalink/catalogue1912

Author:	Kraler, Anton
	Kammeringer, Ewald
Publisher:	Intergrated Digital Conference (INDICO)
Year of Publication:	2018
Country of Publication:	Korea
Format:	Conference Paper
Material:	CLT (Cross-Laminated Timber)
	Glulam (Glue-Laminated Timber)
	Timber-Concrete Composite
Application:	Floors
Topic:	Acoustics and Vibration
Keywords:	Stiffness
	Dynamic Properties
	Sound Absorption
	Multi-Storey
	Residential Buildings
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://indico.conference4me.psnc.pl/event/171/session/370/contribution/251/material/paper/1.pdf

Advanced Wood-Based Solutions for Mid-Rise and High-Rise Construction: In-Situ Testing of the Origine 13-Storey Building for Vibration and Acoustic Performances

https://research.thinkwood.com/en/permalink/catalogue1474

Author:	Hu, Lin
	Cuerrier-Auclair, Samuel
Organization:	FPInnovations
Year of Publication:	2018
Country of Publication:	Canada
Format:	Report
Material:	CLT (Cross-Laminated Timber)
Application:	Wood Building Systems
	Floors
	Walls
Topic:	Acoustics and Vibration
	Serviceability
Keywords:	Origine
	Natural Frequencies
	Damping Ratios
	Sound Insulation
	Ambient Vibration Tests
	Static Deflection
	Apparent Sound Transmission Class
	Apparent Impact Insulation Class
Language:	English
Research Status:	Complete
Notes:	Report is currently not available due to the redevelopment of FPInnovations' publications website.

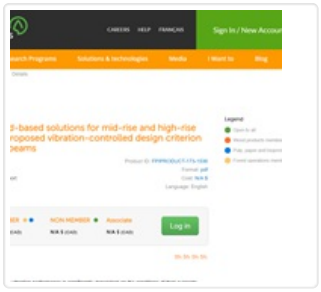
Abstract:

Serviceability performance studied covers three different performance attributes of a building. These attributes are 1) vibration of the whole building structure, 2) vibration of the floor system, typically in regards to motions in a localized area within the entire floor plate, and 3) sound insulation performance of the wall and floor assemblies...

Online Access: Payment Required

Resource Link

https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/16795.pdf#.Wz0Cq_IKiUI



Advanced Wood-Based Solutions for Mid-Rise and High-Rise Construction: Proposed Vibration-Controlled Design Criterion for Supporting Beams

https://research.thinkwood.com/en/permalink/catalogue1178

Author:	Hu, Lin
Organization:	FPInnovations
Year of Publication:	2018
Country of Publication:	Canada
Format:	Report
Application:	Floors
Topic:	Acoustics and Vibration
	Mechanical Properties
Keywords:	Floor Supporting Beam
	Bending Stiffness
Language:	English
Research Status:	Complete
Notes:	Report is currently not available due to the redevelopment of FPInnovations' publications website.

Abstract:

For wood floor systems, their vibration performance is significantly dependent on the conditions of their supports, specifically the rigidity of the support. Detrimental effects could result if the floor supports do not have sufficient rigidity. This is special ture for floor supporting beams. The problem of vibrating floor due to flexible...

Online Access: Payment Required

Resource Link

https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/16777.pdf#.WymFp_lKiUl