



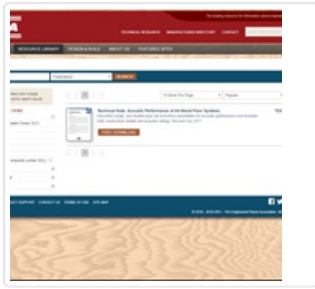
Acoustically-Tested Mass Timber Assemblies

<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
 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
Online Access: Free

Resource Link

<https://www.apawood.org/publication-search?q=T230&tid=1> [↗](#)



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

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

Author: Jeffrey Mahn
David Quirt
Christoph Hoeller
Markus Mueller-Trapet

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

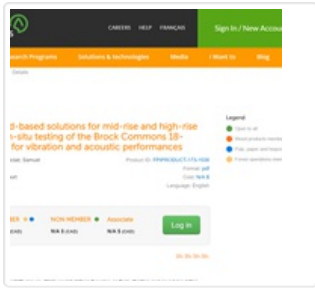
Language: English

Online Access: Free

Resource Link

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





Advanced Wood-Based Solutions for Mid-Rise and High-Rise Construction: In-Situ Testing of the Brock Commons 18-Storey Building for Vibration and Acoustic performances

<https://research.thinkwood.com/en/permalink/catalogue1180>

Author: Lin Hu
Samuel Cuerrier-Auclair

Organization: FPInnovations

Year of Publication: 2018

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Hybrid Building Systems

Topic: Acoustics and Vibration

Keywords: Non-Destructive Testing
Vibration Performance
Natural Frequencies
Damping Ratios
Sound Insulation
Ambient Vibration Testing
Apparent Sound Transmission Class

Language: English

Abstract:

This report addresses serviceability issues of tall wood buildings focusing on their vibration and sound insulation performance. The sound insulation and vibration performance may not affect the building's safety, but affects the occupants' comfort and the proper operation of the buildings and the function of sensitive equipment...

Online Access: Payment Required

Resource Link

https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/16780.pdf#.WymIO_IKiUI



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: Lin Hu
Samuel Cuerrier-Auclair

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

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



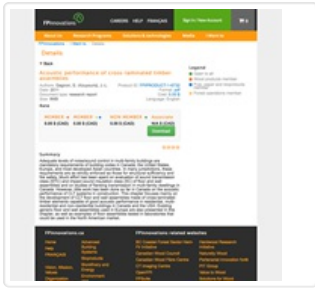
The ASTC Ratings of Mid-Rise Wood Constructions Using CertainTeed SilentFX® QuietCut Gypsum Board [2nd Edition]

<https://research.thinkwood.com/en/permalink/catalogue1278>

Author: Jeffrey Mahn
Organization: National Research Council of Canada
Year of Publication: 2018
Country of Publication: Canada
Format: Report
Material: CLT (Cross-Laminated Timber)
Application: Wood Building Systems
Topic: Acoustics and Vibration
Keywords: Apparent Sound Transmission Class
Mid-Rise
Gypsum
Fiberglass Insulation
Type X Gypsum Board
Language: English
Online Access: Free

Resource Link

<http://doi.org/10.4224/23002826>



Chapter 9: Acoustic Performance of Cross-Laminated Timber Assemblies

<https://research.thinkwood.com/en/permalink/catalogue815>

Author: Sylvain Gagnon
Jean-Luc Kouyoumji

Organization: FPInnovations

Year of Publication: 2011

Country of Publication: Canada

Format: Book Section

Material: CLT (Cross-Laminated Timber)

Application: Walls
Floors

Topic: Acoustics and Vibration

Keywords: North America
Residential
Sound Transmission Class
Impact Sound Insulation Class
Acoustic Performance
Multi-Residential
Non-Residential
US

Language: English

Series: CLT Handbook - Canadian Edition

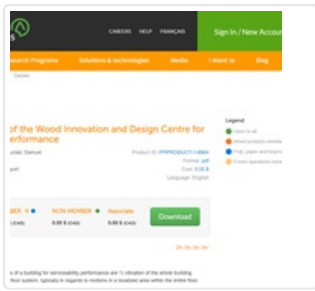
Abstract:

Adequate levels of noise/sound control in multi-family buildings are mandatory requirements of building codes in Canada, the United States, Europe, and most developed Asian countries. In many jurisdictions, these requirements are as strictly enforced as ...

Online Access: Free

Resource Link

<https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/E4848.pdf#.WmtrkHanGUK>



In-Situ Testing of the Wood Innovation and Design Centre for Serviceability Performance

<https://research.thinkwood.com/en/permalink/catalogue1183>

Author: Lin Hu
Samuel Cuerrier-Auclair

Organization: FPInnovations

Year of Publication: 2018

Country of Publication: Canada

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Serviceability
Acoustics and Vibration

Keywords: Vibration Performance
Sound Insulation
Natural Frequencies
Damping Ratios
Ambient Vibration Testing
Apparent Sound Transmission Class
Apparent Impact Insulation Class

Language: English

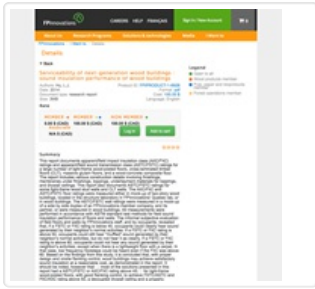
Abstract:

Three performance attributes of a building for serviceability performance 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: Free

Resource Link

<https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/16783.pdf#.WymNAflKiUI>



Serviceability of Next-Generation Wood Buildings: Sound Insulation Performance of Wood Buildings

<https://research.thinkwood.com/en/permalink/catalogue402>

Author: Lin Hu
Organization: FPIInnovations
Year of Publication: 2014
Country of Publication: Canada
Format: Report
Material: CLT (Cross-Laminated Timber)
Glulam (Glue-Laminated Timber)
Timber-Concrete Composite
Light Frame (Lumber+Panels)
Application: Wood Building Systems
Floors
Walls
Topic: Acoustics and Vibration
Serviceability
Keywords: Apparent Sound Insulation Class
Field Sound Insulation Class
Apparently Sound Transmission Class
Field Sound Transmission Class
Language: English

Abstract:

This report documents apparent/field impact insulation class (AIIIC/FIIC) ratings and apparent/field sound transmission class (ASTC/FSTC) ratings for a large number of light-frame wood-joisted floors, cross-laminated timber floors (CLT), massive glulam floors, and a wood-concrete composite floor...

Online Access: Payment Required

Resource Link

<https://fpinnovations.ca/Extranet/Pages/AssetDetails.aspx?item=/Extranet/Assets/ResearchReportsWP/E4874.pdf>