ACADEMIC TOWER UNIVERSITY OF TORONTO, ON, CANADA

Achieving Acoustic Excellence in Mass Timber Buildings

PREFACE

The University of Toronto Academic Tower represents a groundbreaking achievement in mass timber construction in Canada. **As the tallest mass timber structure in the country**, this 14-storey building strikes the perfect balance between modern aesthetics, environmental sustainability, and acoustic performance. The University was searching not only for a sustainable solution but also for an optimized learning environment where noise control was a key priority.

CHALLENGE

The primary challenge for this project was to :

- *Maintain the exposed mass timber aesthetic while achieving strict acoustic and fire safety requirements.*

With a 14-storey structure, the University needed to reach an ASTC rating of at least 50, while also ensuring the mass timber was encapsulated to meet fire safety codes.

ACTION

AcoustiTECH collaborated closely with the project's teams from the early stages of the project. After thoroughly assessing the acoustic and safety needs, the **Soprema Insonomat** system was chosen to deliver high-performance sound insulation. This solution, combined with a wet topping for timber encapsulation, ensured compliance with fire safety regulations while providing exceptional acoustic insulation. AcoustiTECH also provided on-site support to ensure seamless integration of the system throughout the construction process.

PROJECT SPECIFICATIONS

- **Total Area Supplied by Soprema** : 100 000 sq. ft.
- **Storeys** : 14
- **Construction Type** : 175 mm Mass Timber (CLT) with exposed ceiling
- **Expected Completion** : 2026

KEY STAKEHOLDERS

- **Architects** : MJMA
- **Developer** : University of Toronto
- **General Contractor** : Pomerleau

ACOUSTIC SOLUTION

- **Acoustic System :** Soprema Insonomat under concrete topping

EXPECTED RESULTS

While the project is still ongoing and testing has yet to be completed, the integration of the **Soprema Insonomat** system is expected to deliver outstanding acoustic performance. The system is projected to not only meet but possibly surpass the target results, including significantly reduced noise levels and improved sound insulation. These impressive improvements will help create a peaceful, focused learning environment, perfectly aligning with the University's vision of an acoustically optimized space that promotes academic excellence and success.

''For over 25 years, we've been developing high-performance acoustic and structural solutions. Our mission is to help our customers realize their vision by optimizing the acoustics of their projects.''

Vincent Moreau
Co-owner - Executive Vice-President Sales
Innovation & Strategic Development - Sustainability Ambassador
AcoustiTECH

CONCLUSION

As the project progresses, AcoustiTECH's involvement in creating optimized acoustic environments for educational spaces will serve as a model for future mass timber constructions. The University of Toronto's academic tower will stand as a testament to the seamless integration of design, sustainability, and acoustic performance. Looking to enhance your project with cutting-edge acoustic solutions? Contact AcoustiTECH to discover how our expertise can help you achieve your design and performance goals.

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