

Moisture Monitoring For Mass Timber

TimberCast offers comprehensive monitoring for mass timber structures using advanced moisture sensors and real-time data analytics. From manufacturing to installation and commissioning, TimberCast provides crucial building health information, enabling early issue detection and proactive maintenance to ensure structural integrity and longevity.

TimberCast kits can be used alongside FutureCast Active Roof Monitoring for a full moisture monitoring solution for mass timber,



Point Moisture Monitoring Sensors

TimberCast Point Moisture Monitoring sensors can be used for targeted point moisture monitoring at structurally significant locations, which are determined by the building engineer in consultation with SMT technical experts. They can be used on their own as a standalone system for those targeted areas, or they can also be used in conjunction with FutureCast leak detection system within the roof.

The point moisture monitoring (PMM) sensors consist of insulated pins that are driven into the structural deck. PMM Sensors can be installed from the top side of the mass timber flush with the vapour barrier, or from the underside of the deck if needed.

Targeted Structure Monitoring

Sensors can be installed at specific depths into the structural deck to monitor moisture transfer and track moisture levels within the wood deck from the moment they are installed during construction, and remain embedded for the life of the structure.

Applications include:

- Monitoring moisture levels of the roof deck after a weather event during construction to ensure they are at an acceptable level of dryness prior to covering with overburden
- Monitor moisture content over the life of the building, for early warning of conditions that can lead to mold, or structural failure
- Track the progress of drying efforts during the construction process, or after repairs to building enclosure have been completed



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Extended Monitoring

The point moisture monitoring (PMM) sensors consist of insulated pins that are driven into the wood elements within the structure or roof. When installed in the roof, it is installed flush with the Vapour Barrier, however it can be installed from the underside of the deck if needed. Greater depths of wood can be monitored with the inclusion of extension pins for an additional cost to the TimberCast kit.



Additional Information

We also offer Lunch + Learn presentations on a range of topics including Mass Timber Monitoring, and we invite your firm to request one at your convenience. For more in depth information and specs, see SMT

Monitoring in Transit

Relative Humidity

Displacement and Movement Monitoring

Wall Monitoring

To learn more details about our systems or to receive a quote, send any shop drawings or plans via email (info@smtresearch.ca) to an SMT Technical Consultant to receive a full Mass Timber Monitoring proposal.