

Marsh Specialty

Insurance procurement for a mass timber project





THE CONTEXT

Sustainable design and sustainable practices are a requirement for the construction industry across the world. There is a multitude of means to achieve a greener built environment, with mass timber being one of the leading solutions due to its inherent ability to reduce embodied carbon emissions.

Mass timber is a general term for large, engineered wood products that typically involve the lamination and compression of multiple layers to create solid, singular panels of wood. Different products fall under this definition, such as cross-laminated timber (CLT), glued-laminated timber (glulam), and laminated veneer lumber (LVL).

Although forms of timber have historically been used in the construction industry, mass timber is a relatively new product and is being used in innovative ways, with designers incorporating it into high-rise developments and in combination with other structural materials. Consequently, the insurance market has no historical data to understand how the material will perform following incidences of physical damage. As a result, market participants are taking a cautious approach in their review of developments regarding incorporating mass timber. Procurement of insurance for a mass timber project for both its construction and operational phase can therefore be a challenging and frustrating process. Marsh, mindful of this, wants to help our clients navigate the insurance space, using our own experience, market connections, and the guidance set out in the recently launched [Mass Timber Insurance Playbook](#). We were proud to fund this paper, with it being another positive step towards the successful procurement of insurance for mass timber projects.

WHAT ARE INSURERS CONCERNED ABOUT?

In January 2022, the RISCAuthority, a research scheme administered by the Fire Protection Association and supported by many UK insurers, published its white paper "[Insurance challenges of massive timber construction and a possible way forward.](#)" The focus of insurers' concern was risk mitigation for fire and escape of water —two of the largest causes of loss for UK construction and operational insurers.

Subsequently, Marsh Specialty collaborated with the Centre for Sustainable Development at the University of Cambridge to facilitate a series of interviews and workshops with stakeholders from the construction industry — contractors and developers, construction insurers, lawyers, loss adjusters, and Marsh specialists — to identify key risks for cross-laminated timber (a form of mass timber) in upcoming construction projects. The following matrix was produced as a result.

PRIORITY	CLT
HIGH	Fire protection
	Leak/damp detection
	Rigid design and lack of building standards
	Skills shortage when repair is required
	Supply chain risk
MEDIUM	Replicated defects
	Quality control standards during manufacturing phase
	Limited suppliers
LOW	Offloading damage



The management of fire and water risks associated with mass timber remain critical concerns for insurers, but as they investigate the topic further, we have seen that further questions are arising around the ease and cost of repair, notably with potential over-reliance on key trades in the supply chain.

As noted earlier in this paper, the Mass Timber Insurance Playbook was launched in May 2023, and in addition to offering procurement guidance, it details the perspectives of the insurance market. The playbook details how design features influence an insurer's perception of risk. It also suggests that clients need to be aware as to how these features have a bearing on the extent of damage in a building, as a result of either fire or water damage.

Insurers' research into the area is growing. We are encouraged by the fact that they are taking steps to understand the product in order to, in turn, offer insurance for it. Marsh is working with insurers to assist where possible and ensure — to the largest possible extent — that the overarching goal of supporting the industry is at the forefront of their activities. Marsh played a key role in the delivery of the International Association of Engineering Insurers' (IMIA) working group paper on structural timber (please contact Marsh for a copy). This paper sought to outline market concerns over mass timber, delve into risk considerations, and highlight potential underwriting solutions — all with the principal message that the paper was an aid to help the market underwrite mass timber projects. Following this, the London Engineering Group (LEG) has set up a working party on the topic to continue developing the insurance market's understanding of the material.

The insurance industry is moving forward, but there is still no perfect insurance solution. Insurers treat mass timber projects as a higher risk, so it is imperative that a bespoke marketing strategy is put in place.

HOW DOES THIS AFFECT THE INSURANCE PROGRAMME?

Capacity

Having multiple insurers participate on an insurance policy, particularly in the construction phase, is common practice. Insurers deploy capacity that ensures their financial exposure in the event of a total loss is at a level that they — as a corporation — are comfortable with.

For mass timber projects, insurers are restricting the amount of capacity they deploy, which has a knock-on impact on the placement — more insurers are needed to complete it. There are three main drivers behind this:

- 1 **Conservative underwriting:** In the insurance industry, when something is in its relative infancy, with little supporting claims data, insurers tend to take a cautious approach when deploying capacity. This protects the profitability of the underwriting portfolio against the perceived risk associated with the unknown.
- 2 **Estimated maximum loss (EML):** All insurers calculate the potential financial loss in the event of an insurable claim being made against a policy, as part of their underwriting process. This steers the amount of capacity they will deploy on any given project placement. In the UK, fire is the most likely cause of a total loss, and the market perceives the incorporation of mass timber to heighten the fire risk of a development, hence why many insurers calculate their EML as 100% and deploy limited capacity on a placement. The Mass Timber Insurance Playbook states: “The importance of EML cannot be overstated — if the insurers cannot be convinced of the limits of a fire event, (i.e. if there is insufficient control of combustible voids), then there may be no other option but to assign an EML of 100%.”
- 3 **Treaty exclusions/restrictions:** A number of insurers have limits imposed on them by their reinsurance treaties, which are insurance policies purchased by insurers, typically on an annual basis.

Premium

The insurance for mass timber projects is more expensive than those involving traditional methods. The size of the price difference varies depending on the nature of the project, and the type of policy being procured (for example, whether it is a construction or operational project).

Deductibles/excesses

Insurers are imposing higher deductibles/excesses on our clients delivering mass timber projects, notably in respect of fire and water damage. In some cases, depending on the nature of the building, this can extend to the coverage afforded for damage arising for defective design too.

If a client insures their financial loss arising from a physical loss or a damage event (known as delay in start-up) in a construction placement or business interruption in an operational placement, the waiting period, being the time in which the losses are borne by the client, is also likely to be longer for a mass timber project than a project where traditional methods are used.

Conditions

Insurers may seek to impose requirements on the delivery or maintenance of the building as a condition of their offer of terms, and, potentially, they may extend these to conditions precedent to cover on the insurance policy. Examples include hot works conditions, minimum-security standards, and/or imposition of moisture measuring methods.

Exclusions and sub-limits

Insurers are likely to review the coverage requested for mass timber buildings, and seek to impose the following amendments:

- Mould exclusion
- Inner policy limit for materials stored offsite and/or in transit
- Restriction of geographical limit, such as the location for which the policy provides cover

Marketing approach

In the current climate, in order to procure insurance with appropriate cover and at the best possible price, an enhanced approach needs to be adopted during the marketing phase of projects with mass timber to insurers.

Essential to any marketing process is the provision to insurers of the relevant information. The larger or more complex the risk, the greater the exposure and the requirement for detail. In the case of projects utilising modern methods of construction, not all insurers are familiar or comfortable with the associated risks. As such, Marsh is advocating the provision of a comprehensive market presentation to educate insurers, as much as possible, and evidence that the perceived risks are considered by our clients and well managed. If of interest, we are also happy to help arrange a pre-construction assessment of the risk to supplement the market presentation.

A proposed programme for market engagement for mass timber projects is as follows, though we welcome engagement as early as possible and are happy to tailor the programme to the requirements of the project:

PHASE 1

Project evaluation/ understanding

- Initial meeting with Marsh and the project team.
- Marsh to review contract conditions.
- Marsh to provide underwriting questionnaire for project.
- Discussion of policy requirements, such as TPL limits, revenue exposure, and existing structures.

PHASE 2

Executive project introduction

- Marsh will work with you, giving guidance on required content, to present to the insurance market.
- The presentation should be to a small panel of insurers, selected based on pre-agreed criteria. Marsh recommends that both construction and operational insurers are invited, as well as, if appropriate, their respective risk engineers.

PHASE 3

Provision of information

- The project team is to provide the information requested by Marsh two weeks before the roadshow.
- Marsh shall create an underwriting note summarising the information received in order to simplify the insurers' review.

PHASE 4

Project roadshow

- Presentation of the project to the broader insurance market. Agreement to be made in advance of the presentation on attendees or number of presentations, noting the requirement for numerous policies of insurance for the development, both during its construction and when operational.

Prior to commencement on site/
inception of the insurance policy



BETWEEN
8 AND 12 MONTHS

6 MONTHS

5 MONTHS

4 MONTHS

PHASE 5

Secondary information delivery

- Marsh to discuss the project with the insurers invited, and coordinate initial responses and questions for submission to the project.
- Secondary information is to be shared with all engaged insurers.

PHASE 6

Receipt of lead terms

- Marsh to provide a summary report of terms from insurers for all classes for which insurance can be procured, with a recommendation to the project, as to how to proceed.

PHASE 7

Selection of lead market

- Marsh to discuss our lead recommendation with the project.
- Lead market to be selected on a number of factors, not just lowest premium. Examples include capacity deployed, risk engineering capabilities, coverage offered, and ability of the company to insure operational assets.
- Project to issue instruction to proceed.

PHASE 8

Finalisation of the project placement

- Marsh to conclude 100% placement.

PHASE 9

Engagement whilst on-site

- Property insurers are to be kept up to date during the course of construction, with regular check-ins and invitations to either accompany construction insurers on their surveys or undertake their own.
- Independent reports or verifications on the quality of build, such as those undertaken by a latent defects insurer, are to be shared.

3.5 MONTHS

3 MONTHS

2 MONTHS

1 MONTH

DURING CONSTRUCTION

To support the timetable above, Marsh has created a bespoke questionnaire to gather the information insurers require to understand and underwrite a mass timber project. Noting the concerns of the market, the questionnaire has specific focus on the following:



Extent of mass timber



Experience of the supply chain



Design features bespoke to usage of mass timber



Loss scenarios



Offsite storage and transportation



Site security



Fire risk management



Water risk management

We also will work with you to ensure the insurer roadshow is a success. The roadshow provides the project team the opportunity to breathe life into the project and, in particular, to highlight the project's ability to manage the key risks as perceived both by insurers and by the project team themselves. We understand the nature of each project, and its team, differ so we will work with you to ensure that the format of the roadshow is tailored to secure the best outcome.

Key takeaway

Insurers need to accept the construction market transition to usage of mass timber. The industry is moving forward, and in the last few years, we have seen the insurance market take positive steps to understand the material and adequately underwrite it. However, we do caveat this, in that there is a discrepancy in the insurance market.

For example, operational insurers are not as advanced in their development as construction insurers.

Marsh looks to help our clients procure insurance. We echo and advocate the message of the Mass Timber Insurance Playbook that early engagement and detailed information is critical to the success of the procurement process. The relative infancy of mass timber as a product in the UK, combined with the loss experiences of light-weight timber projects, give underwriters cause for concern due to the associated heightened exposures. Without detailed information on the project, underwriters do not have the wealth of experience or claims data to have a sufficient comfort to accept the transfer of risk. Marsh therefore endeavours to help each of our clients provide the detailed information on key project risks, such as fire, water, ease/cost of repair, and design, to give insurers the comfort that robust risk management measures are in effect.

USEFUL LINKS

[ASPB Mass Timber Insurance Playbook](#)

[Marsh Cambridge Paper](#)

[STA 16 Steps to Fire Safety](#)

[FPA Insurance Challenges of Mass Timber Construction](#)

[CIREG Best Practice Guidance Note](#)

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