

Protecting Timber on the Building Site

Introduction

At the end of construction, when the project is completed, the wood structure will be left exposed (not covered with a finish) and will constitute an architectural feature of the building. This means that subcontractors are responsible to avoid damaging the entire wood structure (beams, columns, slabs, braces) when carrying out their work. Here, damage refers to breakage, notches, stains, and other forms of damage.

What's more, all electrical and mechanical elements will be visible. Coordination between subcontractors is therefore very important to ensure that the final result is visually appealing.

The purpose of this document is to provide information on measures to take to protect the timber structure on the building site, and on how subcontractors should go about their work.

In order to protect the structure, subcontractors must adhere to the measures below.

Timber Protection Measures

1. Timber structure storage and handling instructions for subcontractors

1.1 Store wood elements so that they are not touching the ground. They must be kept in a clean, dry and well-ventilated area, in accordance with the manufacturer's recommendations.

1.2 Store the products on blocks of wood to avoid direct contact with the ground. Separate them with spacers (blocks of wood) to allow air to move freely on all sides, and protect them from bad weather.

1.3 Cut a slit into the wrap on the underside of the members while they are being stored on the building site. Be careful not to damage the members.

1.4 If the members are stored outdoors, cover them with an opaque, moisture-resistant paper wrap once the packages have been opened.

1.5 Store the members in such a way that they are protected from marks, scratches and scuffs.

2. Preventative measures for subcontractors other than the timber structure subcontractor

2.1 Do not rest any materials on the structural timber members and do not lean against the timber members when working on the structure. This will avoid marks (from grease, etc.).

2.2 Do not walk on the timber waiting for installation.

2.3 Protect the columns with plywood if machinery will be driven nearby (Bobcat, lift, etc.). (Off the Nordic lot)

2.4 Protect the edges of the members when work is going on nearby. (Off the Nordic lot)

2.5 Do not tool or modify structural members on the building site without prior authorization from the manufacturer (where necessary).

2.6 Protect the wood structure during prolonged periods of exposure to the elements. Water must not be allowed to pool on the structure, as this will darken the wood. Any accumulations of water must be eliminated. (Off the Nordic lot)

3. Corrective measures for subcontractors other than the timber structure subcontractor

3.1 If marks appear on the timber structure, retouch as needed and apply a layer of sealer as indicated below.

Timber Use and Preservation Guide

4. Protection for the building site phase

Surface sealer, also known as water-repellant preservative, is generally applied to engineered wood members in the plant so that they can resist dirt and moisture over the short term, such as during transit and when stored on the building site. Applying sealer to the ends of a timber member is especially important for helping limit moisture from penetrating into the wood. If an engineered wood member is cut on the building site, a layer of sealer must quickly be applied to the newly cut surfaces.

Unless otherwise stated, Nordic Lam elements are protected with Sansin Corp KP-1 coating. This coating is a high-performance product that helps prevent swelling, wood rot and moisture absorption while the structure is being erected. It is an aqueous, low-VOC (volatile organic compound) product that is also environmentally friendly. This coating should not be considered permanent protection. It is applied only to protect the wood members during transport and erection phases.

5. Preparing surfaces before finishing the wood

5.1 Examples of stains

a) Trails of rust from nails used to attach decking to the beams

Precaution: The installer must follow the recommendation to use galvanized nails.

(Off the Nordic lot)



d) Mold due to a long period of storage on the building site without proper ventilation (Nordic systematically ventilates the timber it delivers using wood spacers intended for this purpose)

Precaution: Lay the timber on raised blocks of wood and keep space between each piece of timber to ensure proper ventilation.



b) Cement drips

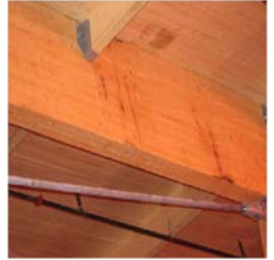
Precaution: Protect the wood with a polythene film before pouring the concrete.

(Off the Nordic lot)



e) Marks from straps used during lifting or wood spacers placed on the ground

Precaution: Take care to use clean lifting materials and spacers; timber structures of architectural quality are designed to remain exposed (visible).



c) Rust marks caused by the use of a grinder to cut steel near a wood column: particles of steel get lodged in the wood, and begin to show when oxidation sets in a few weeks later

Precaution: Never cut steel near wood, otherwise protect the wood.



f) Footprints

Precaution: Do not walk on uncovered timber members.



5.2 Preparing surfaces post-erection

Several methods are available, depending on the type of stains or dirt on the wood.

a) For surface stains on top of the sealer, cleaning with a wet rag can sometimes suffice.

b) If a wet rag is not effective, pressure washing with soap is recommended. It is important to use a nozzle with a straight jet rather than a rotating jet in order to avoid marks. Keep the nozzle a fair distance from the timber to avoid raising the fibres on the surface of the wood and removing the sealer. We recommend doing a spot test in an area that will not be visible.

c) If this technique does not deliver the desired results, you can replace the soap with wood detergent. Once again, we recommend performing a spot test in a non-visible area. The same precautions listed above apply.

Depending on the sealer, it may be necessary to reapply the product in order to achieve an even colour. Make sure the wood is completely dry before doing so.

The Sansin Multi-Wash cleaning product can be used in this case (see the document "Engineered Wood: Preparation and Application Techniques with Sansin").

d) Sanding is recommended for extreme cases. An orbital or belt sander are the recommended tools, or even a manual planer taking care not to go against the grain. It is preferable, but not crucial, to reapply a layer of the same product to ensure an even colour.

6. Finishing options (off the Nordic lot)

According to their intended use and the desired visual effect, structural engineered wood members may be coated in one or more layers of surface sealer, paint or stain. A protective treatment may also be necessary.

Paints and stains are coloured coatings that can be applied to the surface of timber members to protect them. Paints and varnishes form an opaque layer that sits on the surface of the member, while stains penetrate into the wood.

a) For interior finishing: A latex or water-based varnish can be used to provide a satin-effect finish that is resistant to cleaning (see the document “Engineered Wood: Preparation and Application Techniques with Sansin”).

b) For use outdoors in sheltered conditions, the wood can be left as is*. However, you may consider staining, painting or using a penetrating sealer in order to preserve the original look of the wood. Based on exposure

conditions, a protective treatment may also be necessary to ensure increased durability.

It is recommended to apply a protective treatment as soon as the structure is erected (see the document “Engineered Wood: Preparation and Application Techniques with Sansin”).

* Special conditions: The wood must be protected properly. Architectural details should be designed for roof overhangs, column bases, etc.

Note

It is imperative to follow the finishing product manufacturer’s instructions with regard to maintenance.

Disclaimer

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.

Data is provided by Nordic Structures for design purposes. Any misuse or interpretation of such data is the designer’s sole responsibility. Nordic Structures does not act as a designer and cannot be held, in any way, liable in this respect.