

1. INTRODUCTION [Back to top](#)

1.1. Protection of glued laminated timber structural members includes end sealers, surface sealers, primer coats and wrapping applied for the protection of members. End sealers, surface sealers, primer coats and wrappings offer a degree of protection, but they do not necessarily preclude damage resulting from negligence and other factors beyond the control of the laminator during shipment, handling, storage and placement.

1.2. The protection specified should be commensurate with the end use and final finish of the member. Specified protection will vary with the method of shipment and with exposure to climatic and other conditions before construction is completed.

1.3. These recommended specifications are for the guidance of the designer to ensure that the product may have protection consistent with the intended use of the member at appropriate cost. The designer should specify the desired protection to establish a clear understanding between the buyer and the seller. This standard contains alternatives from which the specifier must make certain selections to suit the particular job.

1.4. Experience has shown that the following protection methods, outlined in sections 2, 3, 4, and 5 below, have a sufficient range to fulfill normal requirements. The designer should select the methods of protection best suited to the particular job and include them in the job specification.

2. END SEALERS [Back to top](#)

2.1. End sealers retard moisture transmission and minimize end checking when use conditions are such that end checking is of primary consideration.

2.2. Recommended Specifications.

2.2. Sealer should be applied to fresh cuts of all members after end trimming.

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2.2. A colorless sealer shall be used on ends exposed to view in the completed structure.

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3. SURFACE SEALERS [Back to top](#)

3.1. Surface sealers increase resistance to soiling, control grain raising, minimize checking, and serve as a moisture retardant. Surface sealers fall into the two following classifications:

3.1. Translucent Penetrating Sealers. Translucent penetrating sealers have low solids content. They provide limited protection and are suitable for use when final finish requires staining.

3.1. Recommended Specifications: A penetrating sealer shall be applied to all surfaces prior to shipment.

3.1. Primer and Non-Penetrating Sealer Coats. Primer and non-penetrating sealer coats have higher solids content than penetrating sealers and provide maximum protection by sealing the surface of the wood. Primer and non-penetrating sealer coats should not be specified when final finish requires a natural or stained finish.

- 3.1. Recommended Specifications:
- 2.1. (a) A sealer (or primer) coat shall be applied to all surfaces prior to shipment.
- 2.1. (b) A non-penetrating sealer (or primer) shall have a minimum solids content of 25%.

4. WRAPPING [Back to top](#)

- 4.1. Wrapping the member with water-resistant covering or its equivalent for shipment provides additional protection from moisture, soiling and damage in handling. Wrapping is usually recommended when appearance is of primary importance and additional protection is desired. Bundle or load wrapping may be specified in lieu of individual wrapping when further utilization of wrap after delivery is not desired. Time of removal of factory wrap is optional, but, it must be emphasized that factory-applied wrapping provides additional protection from damage in handling and in transit only. If further utilization of the wrap is desired for protection after shipment, the members should be inspected and provided with additional protection as necessary.
- 4.2. Water-resistant covering used for in-transit protection of individually wrapped members may be left in place until the members are enclosed within the building. If wrapping must be removed at certain connection points during erection, it should be replaced after connection is made to prevent sun bleaching, water staining, or excessive checking of the member. In order to avoid uneven discoloration, whenever a portion of a member's wrapping must be removed, all wrapping from that member shall be removed. Individual wrapping should be slit or punctured on the lowest side if there is evidence of moisture inside the wrapping.
- 4.3. Recommended Specifications:
- 4.3. Individual Wrapping.
 - 1. Members shall be individually wrapped, covering all surfaces, with water-resistant paper,
 - 1.1. opaque polyethylene or their equivalent.
 - 4.3. Wrapping shall be secured to the member by staples, tape or other suitable fastenings
 - 1.2. that do not damage exposed surfaces.

5. PROTECTION FOR PRESERVATIVE TREATED MEMBERS [Back to top](#)

- 5.1. Preservative treatment of glued laminated timber can be divided into three general categories:
- (a) Heavy treatments of members after gluing, such as pentachlorophenol (penta) in heavy oil;
 - (b) Light treatments of members after gluing such as penta in light solvent
 - (c) Treatments of laminations prior to gluing such as CCA.

5.1.1. Protection of glued laminated members receiving heavy treatments is generally limited to end sealers. Surface sealers may be recommended if the members are to be stored in an arid climate prior to treatment. If protection during transit and storage is desired, load wrapping should be satisfactory for members receiving heavy treatments.

Protection of glued laminated members receiving light treatments is more critical since members are generally intended for use where appearance is a factor. End sealers should be applied at the time the end cuts are made and following treatment to minimize end checking. Surface

5.1.2. sealers may be recommended if the members are to be stored in an arid climate prior to treatment. Surface sealers may also be applied to the members after treatment for the same reasons they are applied to untreated members.

5.1.3. Protection of glued laminated members made from treated laminations is generally the same as for untreated members.

6. UNLOADING AND HANDLING [Back to top](#)

- 6.1. Recommended Specifications:
- 6.1.1 Laminated members shall not be dragged or dropped. Care shall be taken in handling to prevent damage to finished surface. Cable slings or chokers shall not be used to handle laminated materials unless adequate blocking is provided between the cable and the wood member to prevent damage to finished surface. Web belting-type slings are recommended. Protection cleats or blocking shall be applied at pickup points to protect corners.
 - 6.1.2 Spreader bars of suitable length shall be used when lifting long members to reduce the probability of damage. The method of erection and handling shall not overstress the member.
 - 6.1.3 Members should be lifted on edge whenever possible
 - 6.1.4 Extreme care should be taken to minimize impact forces during lifting.

7. JOB SITE STORAGE [Back to top](#)

- 7.1. Job site storage is extremely important when appearance, checking considerations, raised grain and soiling are of primary importance to the consideration of the member. Though job site storage is not the responsibility of the manufacturer, these recommendations are included as a guide to the specifier and contractor to minimize appearance and other damage.
- 7.2. Recommended Specifications:
 - 7.2.1. Laminated material stored at the job site shall be treated with utmost care. A level area is required to avoid warping. Members shall be supported with blocking so spaced as to provide uniform and adequate support. If covered storage is not available, the material shall be blocked well off the ground at a well drained location. Stored members shall be separated with stripping arranged vertically over the supports so that air circulated around all four sides of each member; the top and all sides shall be covered with moisture--resistant covering. If a paved surface is unavailable, the ground under the material shall be covered with polyethylene film. Clear polyethylene film shall not be used. Individual wrappings shall be slit full length or punctured on the lower side to permit drainage of water.

8. ERECTION [Back to top](#)

- 8.1. The handling of members during erection is extremely important when appearance is of primary importance to the consideration of the member. Though job site handling is not the responsibility of the manufacturer, these recommendations are included as a guide to the specifier and contractor to minimize appearance and other damage.
- 8.2. Recommended Specifications.
 - 8.2.1 Padded or nonmarring slings shall be used, and corners shall be protected with wood blocking. *(See Section 6 for additional information.)*