MINIMIZE GLULAM CHECKING THROUGH PROPER STORAGE AND HANDLING

REDUCED POSSIBILITY

INCREASED POSSIBILITY



Glued laminated timbers (glulam members) may develop seasoning checks as a normal function of the moisture stabilization process. The degree of checking that might occur in an individual member (risk of checking) will depend on the combined effects of the initial moisture content, the seasonal conditions, handling and storage practices at distribution facilities and job sites, and the in-service environment after installation. The degree of checking in individual members will be influenced by the rate at which the member moisture content changes from a moisture content level at the time of manufacture to its expected in-service level. There are several steps that distributors and builders can take to minimize seasoning checks. When checks do occur, they are primarily an aesthetic concern and can be filled with an elastomeric filler to improve appearance.

SEASONAL, STORAGE, AND INSTALLATION CONDITIONS THAT AFFECT POSSIBILITY OF CHECKING

Seasonal and climate conditions

- Fall to winter. mild climate
- Relative Humidity > 65%
- Temperature Range < 90° F
- Small changes in seasonal relative humidity to be expected
- Winter/spring to summer. hot arid climate
- Climate changes to low relative humidity and high temperatures likely
- Relative Humidity < 50%
- Temperature Range > 90° F

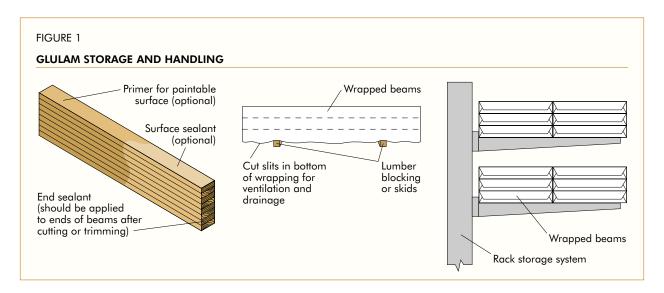
Storage and installation conditions

- Wrapped members stored well off the ground with secondary cover
- Wrapping removed after installation in enclosed space where members are allowed to stabilize naturally during construction
- Apply end sealer when the glulam beam is cut to length at a distribution yard or job site
- Rapid changes in seasoning rate to be avoided by construction scheduling and interior control of building environmental conditions
- During job site storage, the underside of the wrapping paper is cut to guard against water "ponding" inside the wrap
- Rapid changes in temperatures that can affect the rate of drying should be avoided during the first heating cycle
- Direct exposure of glulam to heating outlets should be avoided
- Covered/protected after installation
- Limited exposure to weather conditions prior to building enclosure
- Unwrapped prior to installation, stored on site without protection
- Direct exposure of unwrapped members during storage or after installation - no secondary cover/protection provided
- Direct exposure of unwrapped members to the effects of the sun and wind in an arid climate
- Unwrapped and exposed to the elements in early summer, with rapid change in glulam moisture content likely as season progresses





Glulam manufacturers cannot assure that seasoning checks will not occur in individual glulam members as the result of handling and storage at distribution facilities, job site storage, installation, and regional climatic conditions. To reduce the possibility and severity of checking, it is important to coordinate delivery schedules to minimize job site storage. Guard against direct exposure of glulam members to severe conditions like high temperatures, rain, wind, and other damaging weather conditions. Hot/dry and wet/winter climates can both create high-risk environments, depending on how quickly the moisture content is lowered. If high-risk conditions cannot be avoided, take extra precautions in storage and installation to protect the beams and columns.



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7011 So. 19th St. = Tacoma, Washington 98466 = (253) 565-6600 = Fax: (253) 565-7265



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