

Preservative Treatment for Structural Glued Laminated Timber

The American Wood Protection Association (AWPA) publishes Standard U1, *Use Category System: User Specification for Treated Wood*, which prescribes the requirements for preservative treated wood for use in different end-use environments denoted by “use category” (UC), including above ground use in exposed conditions and general ground contact use that is classified as UC3B and UC4A, respectively. As expected, the preservative retention level is higher for UC4A than UC3B due to the higher severity in end-use conditions for UC4A.

In early 2016, the U1 standard was revised by AWPA to require sawn lumber and timber used in above ground exposed conditions be preservative treated at the UC4A level, just like general ground contact use conditions, *if the preservative treated wood used in Joists and Beams are difficult to maintain, repair, or replace, and are critical to the performance and safety of the entire system/construction*. These revisions, which are expected to be published in the 2016 edition of the U1 standard, have caused confusion and misunderstanding in the field with regard to the enforcement and applicability of the changes. This paper is intended to clarify several key issues specifically related to structural glued laminated timber (glulam).

- 1) Since the current building codes, such as the 2015 International Building Code (IBC) and International Residential Code (IRC), reference the 2014 edition of the U1 standard, the changes in the 2016 U1 standard are not applicable to the current building code. While it is reasonable to expect that the 2016 U1 standard or any additional revisions that may be published in the 2017 U1 standard will be adopted into the 2018 IBC and IRC, those changes do not have enforcement power until the 2018 codes are adopted by the state or local jurisdictions. Such adoption will most likely occur after 2018.
- 2) The changes in the 2016 U1 standard are applicable only to Specification A, *Sawn Products*, but not those products defined in Specification F, *Wood Composites*, which includes glulam.
- 3) The intent of the changes in the 2016 U1 standard is to increase the preservative retention for waterborne preservative treatments on sawn lumber or timber joists and beams that are difficult to maintain, repair, or replace, and are critical to the performance and safety of the entire system/construction. It has long been the glulam industry’s position that glulam products are not recommended for waterborne preservative treatment, as documented in the APA *Technical Note on Preservative Treatment of Glued Laminated Timber*, Form S580 (www.apawood.org). Therefore, the changes in the 2016 U1 standard do not have direct impact to preservative treated glulam products treated with non-waterborne preservatives.
- 4) Glulam products treated with non-waterborne preservatives at the UC3B level have excellent performance history in above ground exposed conditions. As a result, there is no reason to require an increased treatment level for glulam products used in UC3B above ground exposed environments.

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