

Hardware for Ground-Contact Lumber

Q As lumberyards and building codes begin adapting to the AWPA's revised Standard U1 for treated lumber (see "Tougher Rules for Treated Wood," deckmagazine.com), will the higher chemical retention levels found in lumber treated for ground contact result in possibly more-corrosive environments for fasteners? In other words, will deck builders once again need to take extra measures—such as wrapping the ends of joists with self-adhering flashing tape—to isolate joist hangers and other metal hardware from joists and beams?

A Robert Leichti, an engineering manager in the Fastening Systems department at Simpson Strong-Tie, responds: Even though changes to AWPA U1 and AC326 may push up some application specifications one use category—mostly from UC3B (above ground) to UC4A (ground contact), and to a lesser extent from UC4A to UC4B (heavy-duty ground contact)—the actual chemical retention levels for UC3B, UC4A, and UC4B have not changed.

Simpson Strong-Tie tuned its corrosion-resistance classifications to these categories in 2014. For above-ground ACQ-C, ACQ-D, CA-B, and CBA-A treatments without ammonia (western treaters typically use ammonia as an additional carrier since western species are more difficult to treat than southern yellow pine), Simpson recommends HDG hardware with a minimum G185 zinc coating. For PT lumber with retention levels greater than 0.40 (for ACQ and MCQ), 0.41 (for CBA-A), or 0.21 pcf (for CA-B)—the AWPA-specified retention levels for UC4A (ground contact) treated lumber—Simpson continues to recommend stainless steel hardware. Because our recommendations refer to the use categories and their retentions, we don't expect our corrosion-resistance and hardware recommendations to change, although for materials that push from UC4A to UC4B, the recommendations in UC4B will be stainless steel, just as it is now. Also, critical structural components should already be fastened with stainless steel to mitigate risk.



While metal hardware with a G185 zinc coating is generally acceptable for use with PT lumber rated for above-ground use (UC3B), PT lumber rated for ground contact (UC4A) may require metal hardware with more corrosion resistance.

Preventing Redwood From Bleeding

Q On elevated decks with redwood decking, we've sometimes noticed black streaks on the joists below. Are they caused by the redwood, and if so, how can we prevent them?

A Charlie Jourdain, president of the California Redwood Association (calredwood.org), responds: The dark streaks may be the result of water-soluble tannins (also called extractives) in the redwood leaching out during rains and then "bleeding" over the joists and structures below. The issue is cosmetic rather than structural, and typically, the bleeding will stop after the first rainy season, once the surface tannins in the redwood have been exhausted.

One way to reduce redwood tannin bleed is by applying a quality finish to all surfaces (top, bottom, and sides) of the decking prior to installation. In addition to prefinishing the decking, placing some type of flashing or deck-seal product along the top edge of the joists before installing the decking may have the additional benefit of directing rainwater runoff away from the sides of the joists, thus preventing discoloration. And once the decking has stopped bleeding, you can remove the dark tannin stains from the joists with a commercial wood brightener containing oxalic acid. ❖