

Technical Topics

TT-091C

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California Wildland Urban Interface Approvals for APA Siding

In compliance with the California Building Code (CBC), exterior siding used in designated Wildland Urban Interface areas must be listed by the Office of the State Fire Marshal's Building Materials Listing Program (BLM) as meeting the requirements of the Office of State Fire Marshal (SFM). The two listed APA 303 panel siding groove patterns can be found in the BML online database at <u>https://calfire.govmotus.org/BMLSearch/Index</u> under the listing numbers of 8140-2020:0001 and 8140-2020:0002. The panels complied with the provisions of *APA PRP-108*, *Performance Standards and Qualification Policy for Structural-Use Panel*^a and *APA 303 Siding Manufacturing Specification*^b. The approvals are based on the results of a series of fire tests that APA sponsored at an SFM accredited fire test laboratory.

APA plywood siding panels listed under BML Category 8140—EXTERIOR WALL SIDING AND SHEATHING FOR WILDLAND URBAN INTERFACE (WUI) are:

- a. **8140-2020:0001:** "APA 303[®]" plywood siding with shiplap edges, nominal 19/32 inches thick (19/32 Performance Category) or greater and grooves spaced no closer than 4 inches on center or without grooves, and manufactured with veneers of all Southern Pine or Douglas-fir face, back and center with cross plies of PS 1 Group 1 or 2 species, 4 feet by 8 feet or taller panel. Refer to the manufacturer's installation instructions and product data sheets.
- b. **8140-2020:0002:** "APA 303[®]" plywood siding with reverse board and batten with shiplap edges, nominal 19/32 inches thick (19/32 Performance Category) or greater, grooves spaced no closer than 12 inches on center or without grooves, manufactured with face, back and center of Douglas-fir veneers and cross ply veneers of PS 1 Group 1 or 2 species, 4 feet by 8 feet or taller panel. Refer to the manufacturer's installation instructions and product data sheets.

Both of the above panel constructions represent the constructions and wood species most commonly available in the marketplace and represent the types of 303 siding panels that would have the least fire resistance in the fire test.

a. APA PRP-108, Performance Standards and Qualification Policy for Wood Structural Panels, Tacoma, WA, 2021 b. APA 303 Siding Manufacturing Specifications, Tacoma, WA, 2019

The decorative grooves in many 303 sidings, along with the shiplap joints, proved to be the weakest points for protecting against assault by fire. The effect of knotholes and core gaps proved to be inconsequential. Of the various grooving patterns of 303 sidings, the two tested sidings (T1-11 and reverse board and batten) represent the deepest and widest grooves and have typical shiplap edges. Other 19/32 Performance Category and greater 303 sidings will be more resistant to fire than either of these two patterns because they either have no grooves or because the depth of those grooves is less, thereby leaving more wood in place to slow the advance of any fire through the panel. Based on char rates and principles discussed in Harmathy's *Design to Cope with Fully Developed Fires*^c, thicker wood can be expected to resist fire longer than thinner wood and will therefore also pass the SFM Standard 12-7A-1 test.

We have field representatives in many major U.S. cities and in Canada who can help answer questions involving APA trademarked products. For additional assistance in specifying engineered wood products, contact us:

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c. Harmathy, T. Z., Design to Cope with Fully Developed Fires, Design of Buildings for Fire Safety, American Society for Testing and Materials, Philadelphia, PA, 1978