Redwood

Redwood Decking Meets Wildland Fire Standards

The superior performance of redwood lumber under fire exposure has been known for decades. Recent testing by numerous laboratories in response to new standards for decks in California's wildland-urban interface has reaffirmed redwood's reputation as a fire-safe decking product.

On September 21, 2005 the California Building Standards Commission unanimously approved the State Fire Marshal's "Wildland-Urban Interface Fire Areas Building Standards." The development of these standards was the culmination of two years of effort by representatives of building material manufacturers, home builders, fire-fighting agencies and numerous other industry and state organizations in response to conflagrations such as the 2003 Cedar Fire in San Diego County. The newly adopted standard allows Construction Common or better grades of redwood decking to be used without restriction throughout California's fire-prone wildlands.

The decking surface section of the new code states that if a decking material has a net peak heat release rate of 25 kW/sq-ft or less when tested in accordance with SFM-4 "Deck Test Standard" (Part A) and conforms to ASTM E-84 Class B flame spread it can be used in all fire hazard severity zones without restriction. Construction Common or better grades of redwood meet both of these criteria without the need for costly fire retardant treatment. Decking materials not meeting both of these criteria will not be allowed unless the exterior wall covering to which the deck is attached is constructed of non-combustible or ignition resistant material. Non-combustible decking (masonry and steel) or ignition resistant decking (fire retardant treated wood) are other options.

Tests on redwood decking conducted by the University of California Forest Products Laboratory in addition to the more recent California Redwood Association sponsored tests conducted by Underwriters Laboratories, Inc. and

Construction Common or better grades meet both "WUI Fire Areas Building Standards"…

Decking materials not meeting both criteria will not be allowed…

Redwood decking during and after under-deck flame exposure.

the Western Fire Center, Inc. indicate that the net peak heat release rate for redwood is in the 12-15 kW/sq-ft range. Both heartwood- and sapwood-containing grades of redwood successfully passed the modified Part B of SFM-4 using a class "B" burning brand as requested by the County of San Diego. Previous tests on one-inch nominal thickness redwood heartwood resulted in the current Class B flame-spread rating. New tests conducted by the Southwest Research Institute Department of Fire Technology, verified the Class B flame-spread rating for two-inch nominal Construction Common and Construction Heart grades of redwood decking.

The new Chapter 7A, entitled "Materials and Construction Methods for Exterior Wildfire Exposure", will be incorporated into the California State Building Code. Implementation of Chapter 7A is expected to occur once the mapping of fire hazard severity zones has been completed by the CDF in 2008. While full implementation of the new code will not occur until January of 2008, local jurisdictions are expected to use the State standard as a model for their local urban/wildland interface building codes.

Redwood's remarkable properties combined with coordinated, up-to-date material performance testing has resulted in suppliers, builders, homeowners and fire and building officials being assured that redwood decking can be used safely and without restriction throughout all areas of California.