

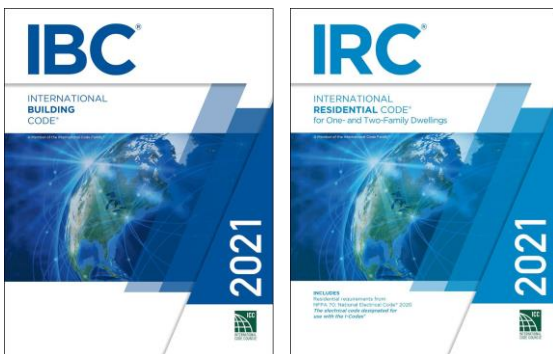
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Technical Bulletin –

Understanding International Building Code /International Residential Code Definition of ‘Naturally Durable Wood’ “Fire Resistant Wood” for exterior building applications and Code Compliance.

Building Codes

Most Municipalities have adopted or included International Building and International Residential Codes into their own building codes as the benchmark for minimum standards in design and construction.



Naturally Durable Wood

Not all wood is created equal. Species selection will have a significant impact on both the appearance and performance of any exterior building project. To meet code a wood species must be selected that meets the definition of “Naturally Durable” under International Building Code and International Residential Code compliance requirements.

The International Building Code (IBC) and International Residential Code (IRC) require the use of Treated or Naturally Durable Wood having the durability of Redwood or Cedar as a minimum standard for deck constructions.

Both Redwood and Cedar have a durability class rating of Class 2 (moderate) or higher in above ground applications. It is important to note that the durability rating of wood is associated with heartwood. As such untreated sapwood of Redwood, Cedar or any other species must always be considered as non-durable.

Fire Resistant Wood

International Building Codes do not reference Naturally Fire Resistant Wood. They do however reference in section... 2303.2 Fire-retardant-treated wood. Fire-retardant wood is any wood product that, when impregnated with chemicals by a pressure process or other means during manufacture, shall have when tested in accordance with ASTM E84 or UL723, a listed flame spread index of 25 or less.

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As such natural untreated wood with a flame spread index of 25 or less meeting a NFPA Class A standards are typically considered fire resistant or limited combustible materials.

Design Values

Any wood product used in decking, stringer and beam applications must have established allowable design values and engineered span tables based on required loading and wood grade on which specifiers and code officials can rely.

While it is not mandatory some designers and building inspectors will request an ICC-ES number for products used in construction. The ICC-ES number correlates to an ICC-ES report which verifies code compliance without having to demonstrate through other forms of documentation that the products used meet minimum standards. Not having an ICC-ES number does not disqualify a product from use. The building inspector may simply require product documentation that demonstrates compliance with minimum standards. This is why Tropical Forest Products supplies code compliance documentation in an ICC-ES report format.