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Roofing Materials:

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WILDFIRE RESEARCH FACT SHEET



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Roofs are a highly vulnerable part of a home during wildfires

HOMEOWNERS NEED TO IMPLEMENT RISK REDUCTION ACTIONS THAT MAKE HOMES BETTER ABLE TO SURVIVE A WILDFIRE - AND THE ROOF IS A GREAT PLACE TO BEGIN!

HOW HOMES IGNITE

Homes ignite in one of three ways: embers/firebrands, radiant heat exposure or direct flame contact. An example of an ember ignition is when wind-blown embers accumulate on combustible materials such as a wood shake roof. An untreated wood shake or shingle roof covering is the greatest threat to a home.

ROOF COVERINGS AND ASSEMBLIES

Roof covering fire ratings are Class A, B, C, or unrated; with Class A providing the best performance. Common Class A roof coverings include asphalt fiberglass composition shingles, concrete and flat/barrel-shaped tiles. Some materials have a “by assembly” Class A fire rating which means, additional materials must be used between the roof covering and sheathing to attain that rating. Examples of roof coverings with a “by assembly” fire rating include aluminum, recycled plastic and rubber and some fire-retardant wood shake products. If a wood shake roof does not have the manufacturer's documentation specifying the fire retardant, assume it's untreated.

TILE AND ROOF COVERINGS WITH GAPS BETWEEN THE COVERING AND ROOF DECK

Flat and barrel-shaped tiles, metal, and cement roof coverings can have gaps between the roof covering and sheathing, which typically occur at the ridge and edge of roofs. These openings can allow birds and rodents to build nests with materials that are easily ignited by embers. Flames from this type of ignited debris can spread to the structural support members, bypassing the protection offered by a Class A rated roof covering. Plugging these openings between the roof covering and the roof deck, is commonly called “bird stopping”. Regularly inspect and maintain these areas.

DEBRIS ACCUMULATION – ROOF AND GUTTERS

Wind-blown debris (including leaves and pine needles from nearby and overhanging trees) will accumulate on roofs and in gutters. Dry debris can be ignited by wind-blown embers. These flames can extend to the edge of the roof and adjacent siding. Even with Class A fire-rated roof coverings, vertical surfaces next to the roof edge will be exposed to flames from the ignited debris. Regularly remove vegetative debris from your roof and gutters.

ATTICS, CRAWLSPACES, SOFFITS AND EAVES

Post-fire research has shown attic vents, roof and gable end vents and under-eave areas are entry points for embers and flames. Reduce the size and number of embers that pass through vents into attic and crawlspaces by covering them with a ⅛-inch metal mesh screen. When wildfires threaten, vents can be covered with ½-inch or thinner plywood, or a thin metal plate. Ensure these are removed when the threat has passed.

REDUCE YOUR ROOF'S VULNERABILITY TO WILDFIRE

1 Roofs should be Class A fire-rated, such as asphalt composition shingles. If you're unsure about your roof's rating, hire a professional roofer to make a determination.

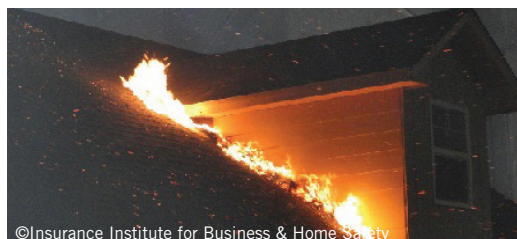
2 Remove debris on the roof and in the gutters at least twice a year, or more often if necessary.

3 Remove tree branches that overhang the roof.

4 Periodically inspect exposed areas under eaves and soffits to ensure construction materials are in good condition.

5 Cover vents, e.g., with noncombustible, corrosion-resistant ⅛-inch metal mesh screens.

6 Inspect and maintain your roof on a regular basis. Replace when necessary.



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