PEPA
Polymeric Exterior Products Association

Colorado and California Wildfire Code Overview

This guide, published by the Polymeric Exterior Products Association (PEPA), the trade association representing the breadth of polymeric exterior building and home improvement products used around homes across North America, features an outline of the two leading states on this issue and the potential impact on exterior polymeric materials.

States that are prone to wildfires have implemented new regulations designed to protect structures from wildfire risks, including design requirements that protect against radiant heat, direct flame impingement and flying embers.

Note: Several Colorado jurisdictions have amended the statewide code on wildfire resiliency that make the rules more stringent and, in some cases, impacts the use of polymeric products in moderate and high hazard zones only.

2025 COLORADO WILDFIRE RESILIENCY CODE (CWRC)

EFFECTIVE DATE: JULY 1, 2026

SCOPE OF CODE

The provisions of the CWRC shall apply to new and existing construction containing occupiable and/or habitable space (including HUD code) within the wildland-urban interface (WUI) areas of Colorado, as designated in this code. Existing structures are exempt until construction occurs for remodeling.

TERMS DEFINED

Fire-Resistance-Rated Construction	Safeguards the spread of fire to within structure
Ignition-Resistant Building Material	Resists ignition or sustained flaming combustion, requires extended ASTM E84 or UL 723 test (30 minute test) or tested to ASTM E2768. Materials or products which melt, drip or delaminated to the extent that the flame front is interrupted during the testing are not permitted.
Fire Intensity Classification	Low, Moderate, or High - States prone to wildfires have recently taken steps to implement new regulations designed to protect structures based on certain wildfire risks. These regulations include design requirements that protect against radiant heat, direct flame impingement, and flying embers.
Structure Hardening	Describes methods to improve structure's ability to perform under wildfire conditions by using certain materials based on fire performance tests. There are two classifications for structure hardening Class 1 and Class 2. Class 1 applies to low fire hazard classification and Class 2 applies to moderate and high fire hazard classification.

BUILDING MATERIAL REQUIREMENTS

CHAPTER 4, SECTION 402.2 GENERAL TESTING REQUIREMENTS

Class 1 – Low hazard areas.

Class 2 – Moderate and high hazard areas.

ROOF COVERINGS
(APPLIES TO THE ROOF OR ROOF ASSEMBLY)

CHAPTER 4, SECTIONS 403.2, 404

- Same provisions apply in ALL classes.
- Code applies when 25% or more of roof covering is replaced.
- Class A - ASTM E108 or UL 790, tests apply to the roof or roof assembly, includes reference to not creating a flying brand hazard.
- Ember resistant construction where covering creates space between its application.
  - Roof valleys require specific sheet metal not less than 0.019 inch (No. 26 galvanized sheet gage) corrosion-resistant metal.

CLADDING, APPENDAGES, AND PROJECTIONS

CHAPTER 4, SECTIONS 404.3, 404.6

- Code applies when 25% or more of the total exterior wall surface is replaced.
- No requirements in Class 1, low hazard.
- Class 2 – Moderate and high hazard areas.

  Exterior Walls

  - Must have 1-hour fire resistance rating or be non-combustible.
  - Exterior wall coverings.

    Non-combustible or ignition-resistant materials are required. Vinyl siding is permitted if it is part of a 1-hour fire-resistance-rated assembly.
  - Metal flashing with a minimum 6 inch reveal is required between the ground, decking, and cladding, and at wall-to-roof intersections.

PROTECTION OF EAVES/SOFFIT/FASCIAS

CHAPTER 4, SECTION 404.2

- No requirements in Class 1.
- Class 2 Soffits and fascias must be protected by non-combustible material, ignition resistant material or 1-hour fire-resistance-rated construction in accordance with ASTM E119.
- However, see ventilation requirements for protection against flying embers in Class 1.

FENCING

CHAPTER 5, SECTION 502.4

- Fencing is exempt if it is more than 8 feet from a habitable structure.
- Fence within 8 feet of structure must be non-combustible, vinyl fencing is exempt from this requirement.

Other polymeric material considerations

GUTTERS AND DOWNSPOUTS

CHAPTER 4, SECTION 403.3

- Must be non-combustible in ALL classes.

VENTILATION OPENINGS

CHAPTER 4, SECTION 403.4

- Ventilation openings for attics, enclosed rafter spaces, and underfloor spaces.
- Must be fully covered and tested to meet ASTM E2886 with special compliance requirements or made of non-combustible materials.

EXTERIOR GLAZING AND DOORS

CHAPTER 4, SECTIONS 404.7, 404.8

- No requirements in Class 1.
- Class 2 Tempered glass, multilayered glazed panels, glass block, or rating not less than 20 minutes.
- Class 2 Doors solid core wood doors not less than 1 ½ inch, or fire protection rating of not less than 20 minutes.

DECKING

CHAPTER 4, SECTION 404.5

- No requirements in Class 1.
- Class 2 decking must be Class A rated (roof test) or made of ignition-resistant material.
- Composite decking material can have a minimum of Class B rating

BUILDING MAINTENANCE

CHAPTER 1, SECTION 101.8

- The code applies to the maintenance of structures and landscape/vegetation. Defensible space and related elements must be maintained in conformance with the code.

CALIFORNIA ZONE 0 REGULATIONS AND WILDLAND URBAN INTERFACE (WUI) CODE

Current Requirements of the CA WUI Code remain unchanged (effective date 2022). Including wall/eaves (ASTM E119 or E2707, SFM Standard 12-7A-1), roofing (ASTM E108), and window requirements.

Note: The California WUI Code is going through additional changes, but those changes will not take effect January 1, 2029. Those changes will be updated in this document in this document closer to the effective date. PEPA is actively participating in this process to ensure fair treatment of polymeric building products.

New Zone 0 requirements will take effect on January 1, 2027 and these rules only affect the use of non-combustible fencing in the most severe Zone 0. Fencing must be non-combustible within 5 feet of structures. Combustible fencing past 5 feet, like vinyl fencing, may be used. The Zone 0 rules do not affect any other building materials.

SCOPE OF ZONE 0 CODE

The provisions of this code shall apply to new and existing homes (and structures) containing occupiable and/or habitable space within the wildland-urban interface areas of California. There will be a 3-year period for existing structures to meet the code. The code applies to the maintenance of structures and landscape/vegetation. Defensible space and related elements must be maintained in conformance with the code. Rental units will need to comply sooner than in the 3-year period.

Effort addresses wildfire hazard based on:
1) Direct flame contact, embers, and radiant heat.

Strong focus on defensible space.

SOURCE: STATE OF CA WEBSITE (HTTPS://WWW.FIRE.CA.GOV/DSPACE)

TERMS DEFINED

Zone 0	0-5 feet around buildings
Zone 1	5-30 feet around buildings
Zone 2	30–100 feet around buildings

The latest FAQ from the government website includes requirements for non-combustible fences, decks, and rails within 5 feet of a structure, as well as the use of non-combustible flashing between grade and siding and in other areas where embers could accumulate. There is no specific mention of cladding requirements, although some recommendations suggest the use of non-combustible cladding. It is not yet clear whether these recommendations will become mandatory requirements. Highlights of current recommendations are available at: https://www.fire.ca.gov/home-hardening.

1800 DIAGONAL RD.
SUITE 545
ALEXANDRIA, VA 22314

For more information, or quick access to code plan review resources, visit polymericexteriors.org

PEPA