

# California Title 24, Part 6

AN EASY-TO-UNDERSTAND OVERVIEW OF THE NEW STANDARDS GOING INTO EFFECT JULY 1, 2014



California Title 24, Part 6 Building Energy Efficiency Standards were established to reduce California's energy consumption. Cool roofs are important elements of an energy efficient structure, offering significant energy and cost savings. The California Energy Commission is updating the standards effective July 1, 2014, to include new prescriptive cool roof requirements in select zones for low-rise residential steep-slope roofs.

Inside you will find a straightforward explanation of the new standards related to cool roofing along with valuable information on how to ensure that your projects meet the new standards. Plus, you'll learn how clay and concrete roof tile from Boral Roofing are a cool roof solution that not only meet the new standards, but also help you provide quality homes that your customers will love.

*This brochure is provided for guidance purposes only. To ensure compliance, please refer to the full California Title 24, Part 6 code as provided by the California Energy Commission.*

## New Build

### Low-Rise Residential<sup>1</sup> Steep-Slope<sup>2</sup>

The preferred method for New Build is the Performance Path using California Energy Commission approved software.

The input variables for steep-slope roofing are the following:

- 1) Reflectivity and Emissivity from the Cool Roof Rating Council (CRRRC) listing<sup>3</sup>
- 2) whether or not you are using a radiant barrier (required in Climate Zones 2-15)

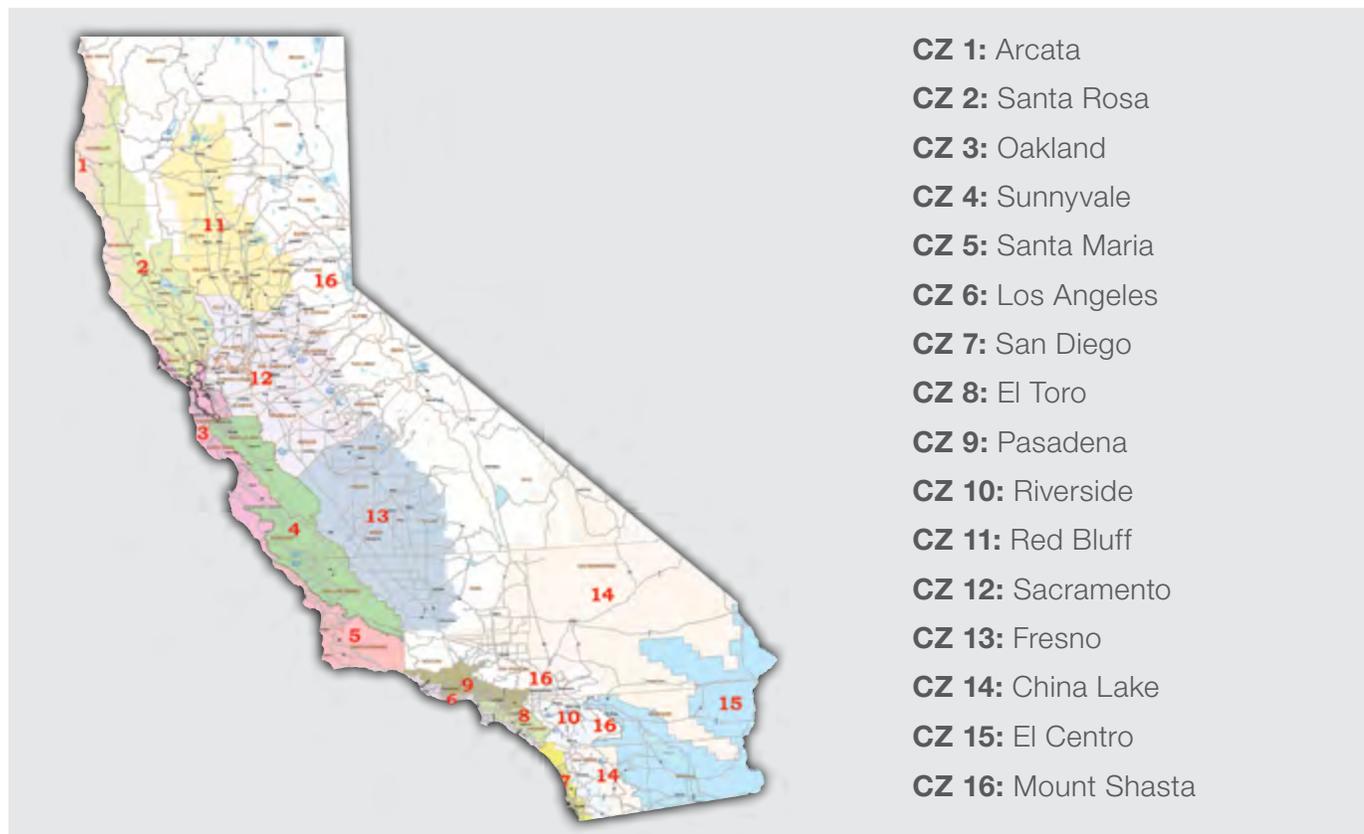
If the roofing product is not currently listed on the CRRRC, the default values are:

Roofing Material	Reflectivity	Emissivity
Clay and Concrete Roof Tile	0.10	0.75
Asphalt Shingle	0.08	0.75

Additionally, the code requires an area of the roof to be solar ready (250 square feet within 110° to 270° north with no roof penetrations or shade). See code for full details.

## California Building Climate Zone Map

Many of the code requirements are climate zone (CZ) specific. Check out the map below and representative cities to find the climate zones that affect your business.



Detailed city and zip code information are available from the California Energy Commission.

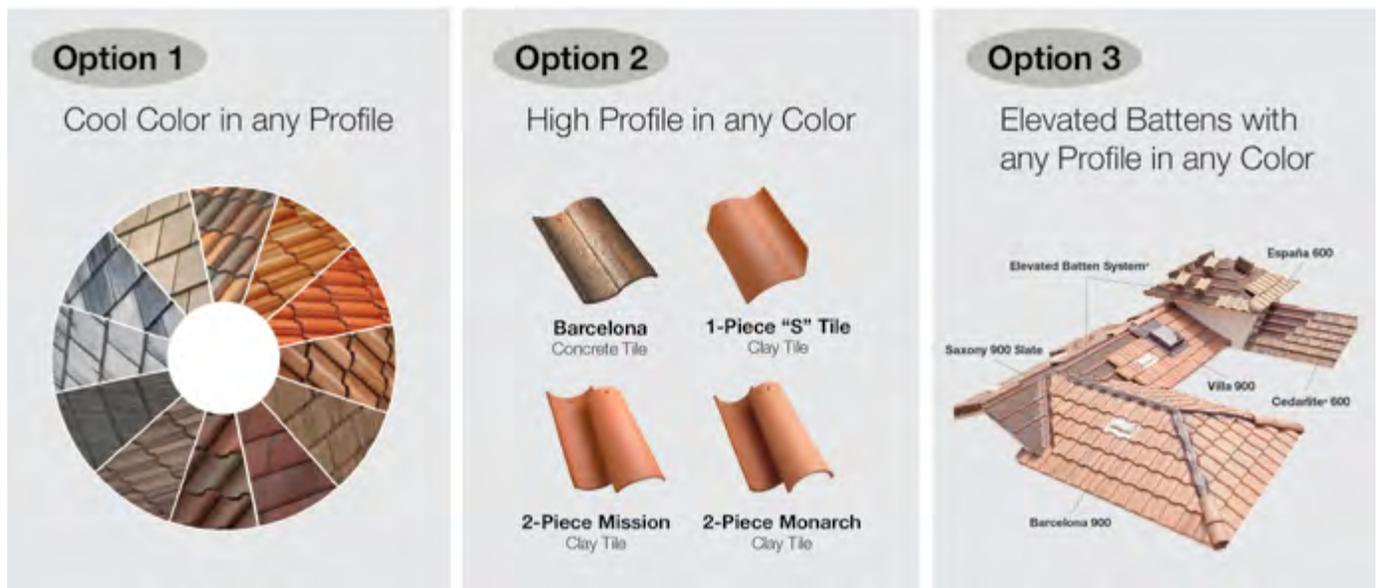
# Reroof and Alterations

## Low-Rise Residential<sup>1</sup> Steep-Slope<sup>2</sup>

If your project meets one of the following conditions, you can use any profile in any color on the roof:

- Located in Climate Zones 1-9 and 16
- Alteration with less than 50% of the roof being replaced
- Addition of less than 300 square feet
- Insulated and sealed duct work or no ducts in the attic
- R38 insulation in the attic or R4 insulation above the deck

For **Climate Zones 10-15**, the code requires a cool roof to reduce the peak energy demand in hotter climates. The preferred method for Reroof (50% or more of the roof being replaced) is the Prescriptive Path which specifies the measures needed to comply with the code. Key Prescriptive Path options include:



A **Cool Color** is defined as any product with an Aged Solar Reflective Index (SRI) of 16 or greater, actual or calculated. The SRI is calculated from the product's reflectivity and emissivity as listed on the CRRC website. For the Prescriptive Path, the California Energy requires an Aged Reflectivity and/or Aged SRI value. Since new products do not typically have the actual 3-year aged values, California Energy Commission provides a calculator to estimate the aged values available for download at [www.energy.ca.gov/title24](http://www.energy.ca.gov/title24).

<sup>1</sup> Includes single family dwellings and duplex and multifamily buildings up to 3 habitable stories

<sup>2</sup> Steep-Slope is defined by greater than 2:12

<sup>3</sup> Cool Roof Rating Council (CRRC) listing can be found at [www.coolroofs.org](http://www.coolroofs.org)

<sup>4</sup> For more information on the California Title 24, Part 6 2013 code, visit the California Energy Commission website [www.energy.ca.gov/title24](http://www.energy.ca.gov/title24)

# Resources

## **Boral Roofing**

[www.BoralAmerica.com/roofing/about/california-title-24](http://www.BoralAmerica.com/roofing/about/california-title-24)

## **Cool Roof Cheat Sheets**

[www.BoralAmerica.com/roofing/about/california-title-24](http://www.BoralAmerica.com/roofing/about/california-title-24)

## **Cool Roof Rating Council (CRRC)**

[www.coolroofs.org/products/results/search&channel=products&keywords=Boral](http://www.coolroofs.org/products/results/search&channel=products&keywords=Boral)

## **California Title 24**

[www.energy.ca.gov/title24](http://www.energy.ca.gov/title24)

## **Climate Zone Map**

[www.energy.ca.gov/maps/renewable/building\\_climate\\_zones.html](http://www.energy.ca.gov/maps/renewable/building_climate_zones.html)

## **SRI Calculator**

[www.energy.ca.gov/title24/2008standards/sri\\_calculator/SRI\\_Calculator\\_Worksheet.pdf](http://www.energy.ca.gov/title24/2008standards/sri_calculator/SRI_Calculator_Worksheet.pdf)

Build something great™

