



**City of Larkspur**  
400 Magnolia Avenue, Larkspur CA 94939  
(415) 927-5038

**Prescriptive Certificate of Compliance: Residential Alterations**

**CF-1R-ALT Re-Roofs**

**Do not use for New Construction or Additions**

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Project Name:

Climate Zone #

# of Stories

**General Information**

Site Address:

Building Type:  Single Family  Multi Family

Circle the front orientation: N, E, S, W, or degrees:

Conditioned Floor Area (CFA):

**ROOFING PRODUCTS (COOL ROOFS) §151(f)12**

*When the area of exterior roof surface to be replaced exceeds more than 50% of the existing roof area, or more than 1,000ft<sup>2</sup>, whichever is less, the new roofing area must meet the roofing product "Cool Roof" requirements of §152(b)1Hi, 152(b)1Hii or 152(b) 1Hiii.*

Check applicable alternative or exception below if the roof alteration is exempt from the roofing product "Cool Roof" requirements. Note: If any one of the alternatives or exception below is checked, the Aged Solar Reflectance and Thermal Emittance requirements for roofing products in §118(i) are not applicable. Do not fill table below.

- Cool Roofs Not required in Climate Zones 2 with a Low Sloped, less than or equal to 2:12 pitch
- Cool Roofs Not required in Climate Zones 2 and 3 with Steep Sloped Roofs (pitch greater than 2:12) and product unit weight less than 5lb/ft<sup>2</sup>.

**Alternatives to § 152(b)1 Hi and §152(b)Hii, steep-slope roof (pitch >2:12)**

- Insulation with a thermal resistance of at least 0.85 hr.ft<sup>2</sup>.° F/Btu or at least a ¾ inch air-space is added to the roof deck over an attic; or
- Existing ducts in the attic are insulated and sealed according to §151(f)10; or
- In climate zones 10, 12 and 13, with 1 ft<sup>2</sup> of free ventilation area of attic ventilation for every 150 ft<sup>2</sup> of attic floor area, and where at least 30 percent of the free ventilation area is within 2 feet vertical distance of the roof ridge; or
- Building has at least R-30 ceiling insulation; or
- Building has radiant barrier in the attic meeting the requirements of §151(f)2; or
- Building has no ducts in the attic; or
- In climate zones 10, 11, 13 and 14, R-3 or greater roof deck insulation above vented attic.

**Exception to § 152(b) Hiii, Low-slope roof (pitch ≤2:12)**

- Building has no ducts in the attic.

**Other exceptions**

- Roofing area covered by building integrated; photovoltaic panels and solar thermal panels are exempt from the below Cool Roof criteria.
- Roof constructions that have thermal mass over the roof membrane with at least 25lb/ft<sup>2</sup> is exempt from the below Cool Roof criteria.

**Note:** If no CRRC-1 label is available, this compliance method cannot be used, use the Performance Approach to show compliance, otherwise, check the applicable box below if Exempt from the Roofing Products “Cool Roof” Requirement:

| CRRC Product ID Number <sup>1</sup> | Roof slope               |                          | Product Weight           |                          | Product Type <sup>2</sup> | Aged Solar Reflectance <sup>3,4</sup> |  | Thermal Emittance | SRI <sup>5</sup> |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------------------|--|-------------------|------------------|
|                                     | ≤ 2:12                   | > 2:12                   | < 5lb/ft <sup>2</sup>    | ≥5lb/ft <sup>2</sup>     |                           |                                       |  |                   |                  |
|                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           | <input type="checkbox"/> <sup>4</sup> |  |                   |                  |
|                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           | <input type="checkbox"/> <sup>4</sup> |  |                   |                  |
|                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           | <input type="checkbox"/> <sup>4</sup> |  |                   |                  |
|                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           | <input type="checkbox"/> <sup>4</sup> |  |                   |                  |
|                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                           | <input type="checkbox"/> <sup>4</sup> |  |                   |                  |

1. The CRRC Product ID Number can be obtained from the Cool Roof Rating Council’s Rated Product Directory at [www.coolroofs.org/products/search.php](http://www.coolroofs.org/products/search.php)
2. Indicate the type of product is being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.
3. If the Aged Reflectance is not available in the Cool Roof Rating Council’s Rated Product Directory then use the Initial Reflectance value from the same directory and use the equation  $(0.2 + 0.7 (P \text{ initial} - 0.2))$  to obtain a calculated aged value. Where  $p$  is the Initial Solar Reflectance.
4. Check box if the Aged Reflectance is a calculated value using the equation above.
5. Calculate the SRI value by using the SRI-Worksheet at <http://www.energy.ca.gov/title24/> and enter the resulting value in the SRI Column above and attach a copy of the SRI-Worksheet to the CR-1R.

To apply **Liquid Field Applied Coatings**, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §118(i)4. Select the applicable coating:

|  |  |                                       |
|--|--|---------------------------------------|
| <input type="checkbox"/> Aluminum-Pigmented Asphalt Roof Coating | <input type="checkbox"/> Cement-Based Roof Coating | <input type="checkbox"/> Other: _____ |
|--|--|---------------------------------------|

**SPECIAL FEATURES** – *The enforcement agency should pay special attention to the Special Features specified below. This item may require written justification and documentation and special verification.*

New Roof Assembly – Radiant Barrier  
 The radiant barrier requirement of §151(f)2 does not apply to roof alterations

**Responsible Building Designer’s Declaration Statement**

- I am eligible under Division 3 of the California Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications for the building design identified on this Certificate of Compliance conform to the requirements of Title 24, Parts 1 and 6 of the California Code of Regulations.
- The building design features identified on this Certificate of Compliance are consistent with the information provided to document this building design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

|                 |            |
|-----------------|------------|
| Name:           | Signature: |
| Company:        | Date:      |
| Address:        | License:   |
| City/State/Zip: | Phone:     |

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300