Development Services Department
Building Division
311 Vernon Street
Roseville, California 95678-2649

NRCC - ENV-01-E ALT
Nonresidential Reroof
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CERTIFICATE OF COMPLIANCE (2013 California Energy Code) AND FIELD INSPECTION ENERGY CHECKLIST

Method of Compliance
Prescriptive Component Approach: *This form may be used only for replacements, recovering or recoating of the exterior surface of existing nonresidential, high-rise residential and hotels/motels roofs using the Prescriptive Component Approach.*

Step 1 – General Information (Complete each field, then go to Step 2)

Project Name:	Permit Number: BD
Project Address:	Climate Zone: 11

Step 2 - Existing Building Type (Select one, then go to Step 3)

Building Type: ☐ Nonresidential ☐ High-Rise Residential and Hotel/Motel Room

Step 3 – Determine if the project or roofing products are exempt from the "CERTIFIED and LABELED" requirements.
(Select one, then if **not exempt,** go to Step 4, otherwise go to Step 7.) ☐ **Pass** ☐ **Fail**

Every roofing product installed in construction to take compliance credit or meet the Prescriptive requirements for reflectance and emittance shall have a clearly visible packaging label that lists the emittance and the initial and 3-year aged solar reflectance, or a CRRC approved accelerated aged solar reflectance, tested in accordance with CRRC-1.
Every roofing product installed in construction to take compliance credit or meet the Prescriptive requirements for reflectance and emittance shall be certified by CRRC or another supervisory entity approved by the Commission.

☐	The building is unconditioned or a process space and **is exempt** from the "CERTIFIED AND LABELED" requirements.
☐	The replaced, recovered or recoated roof area is ≤ 50% of the roof area <u>and</u> ≤ 2000 ft^2 and **is exempt** from the "CERTIFIED AND LABELED" requirements.
☐	Roof constructions that have thermal mass over the roof membrane with a weight of at least 25 lb/ft^2 **are exempt** from the "CERTIFIED AND LABELED" requirements.
☐	The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels **is exempt** from the "Certified and Labeled" requirements. However, the remainder of the roof area is **not exempt** from the "CERTIFIED AND LABELED" requirements.
☐	None of the above and the project or building is **not exempt** from the "CERTIFIED AND LABELED" requirements.

Step 4 - Scope (Select one, then if "Tear-Off" is selected go to Step 5, otherwise go to Step 6) ☐ **Pass** ☐ **Fail**

Installation Type: ☐ Overlay ☐ Tear-Off ☐ Recoat

Step 5 – Mandatory Insulation Requirements (Select the applicable, then go to Step 6) ☐ **Pass** ☐ **Fail**

☐	Roof areas are <u>not exposed</u> to the roof deck or to the recover boards. Exempt from additional insulation requirements.
☐	Roof areas are <u>exposed</u> to the roof deck or to the recover boards and shall be insulated with a minimum thermal resistance of R-14 or shall comply with the selected exception. Exceptions: ☐ The existing roof is insulated with at least R-7 or it has a U-factor lower than 0.089. ☐ If mechanical equipment is located on the roof and it will not be disconnected and lifted as part of the roof replacement, insulation added may be limited to the maximum insulation thickness that will allow a height of 8 inches from the roof membrane surface to the top of the base flashing. ☐ If adding the required insulation will reduce the base flashing height to less than 8 inches at penthouse or parapet walls, the insulation added may be limited to the maximum insulation thickness that will allow a height of 8 inches from the roof membrane surface to the top of the base flashing, provided that the conditions in subsections i through iv apply: i. The penthouse or parapet walls are finished with an exterior cladding material other than the roofing covering membrane material; and ii. The penthouse or parapet walls have exterior cladding material that must be removed to install the new roof covering membrane to maintain a base flashing height of 8 inches; and iii. For nonresidential buildings, the ratio of the replaced roof area to the linear dimension of affected penthouse or parapet walls shall be less than 25 square feet per linear foot; and iv. For high-rise residential buildings, hotels or motels, the ratio of the replaced roof area to the linear dimension of affected penthouse or parapet walls shall be less than 25 square feet per linear foot. ☐ Tapered insulation may be used which has a thermal resistance less than R-14 at the drains and other low points, provided that the thickness of insulation is increased at the high points of the roof so that the average thermal resistance equals or exceeds the R-14.

Step 6 – Roofing Products (Select and complete the applicable information in TABLE(s) A and/or B for the Proposed Roofing and/or Liquid Coatings, then go to Step 7) ☐ **Pass** ☐ **Fail**

TABLE A – ROOFING PRODUCTS

NONRESIDENTIAL BUILDINGS

☐ ***Low-sloped (≤ 2:12) roofs*** *shall have a minimum aged solar reflectance of 0.63 and a minimum thermal emittance of 0.75 or a minimum solar reflectance index (SRI) of 75.* ***EXCEPTION****: Roof/Ceiling insulation tradeoffs for aged solar reflectance per Table A.1 are permitted.*

☐ ***Steep-sloped (> 2:12) roofs*** *shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75 or a minimum solar reflectance index (SRI) of 16.*

Table A.1 – Roof/Ceiling Insulation Tradeoffs for Age Solar Reflectance

Climate Zone 11 U-factor	*0.052*	*0.048*	*0.044*	*0.041*	*0.039*	*0.037*	*0.035*	*0.034*
Aged Solar Reflectance	*0.62 – 0.60*	*0.59 – 0.55*	*0.54 – 0.50*	*0.49 – 0.45*	*0.44 – 0.40*	*0.39 -0.35*	*0.34 – 0.30*	*0.29 – 0.25*

HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS AND MOTELS

☐ ***Low-sloped (≤ 2:12) roofs*** *must have a minimum aged solar reflectance of 0.55 and a minimum thermal emittance of 0.75 or a minimum solar reflectance index (SRI) of 64.*

☐ ***Steep-sloped (> 2:12) roofing materials****, must have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75 or a minimum solar reflectance index (SRI) of 16.*

Table A.2 – Values Of Soiling Resistance β By Product Type

Product Type	***CRRC Product Category***	***β***
Field-Applied Coating	*Field-Applied Coating*	*0.65*
Other	*Not A Field Applied Coating*	*0.70*

Table A.3 - Proposed Roofing

Certified Product ID Number (CRRC)[1]	Roof Slope ≤ 2:12	Roof Slope > 2:12	Product Type[2]	Aged Solar Reflectance[3]		Thermal Emittance	SRI[5]
	☐	☐		☐[4]			
	☐	☐		☐[4]			

1. When applicable, 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.
2. Indicate the type of product being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.
3. If CRRC testing for an aged solar reflectance is not available for any roofing products, the aged value shall be derived from the CRRC initial value using the equation $\rho_{aged}=[0.2+\beta[\rho_{initial}-0.2]$, where $\rho_{initial}$ = the initial solar reflectance and soiling resistance β is listed by product type in Table A.2.
Roofing products that are not certified shall assume the following default aged solar reflectance/thermal emittance values: Asphalt Shingles 0.08/0.75; All Other Roofing Products 0.10/0.75.
4. Check box if the Aged Reflectance is a calculated value using the equation above.
5. The SRI value needs to be calculated from a worksheet or calculator at http://www.energy.ca.gov/title24/

TABLE B – LIQUID COATINGS

☐ **Liquid Applied Roof Coatings** applied to low-sloped roofs in the field as the top surface of a roof covering shall be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer taking into consideration the substrate on which the coating is applied, and

Meet the minimum performance requirements listed in Table B.1, or the minimum performance requirements of ASTM C836, D3468, D6083, or D6694, whichever are appropriate to the coating material.

Exceptions:

☐ Aluminum-Pigmented Asphalt Roof Coating shall meet the requirements of ASTM D2824 or ASTM D6848 and be installed as specified by ASTM D3805

☐ Cement-Based Roof Coating shall contain a minimum of 20 percent cement and shall meet the requirements of ASTM C1583 ASTM D822, and ASTM D5870.

Step 7 – Document Author's Declaration Statement (Complete all fields)

Document Author/Responsible Person Declaration Statement

I certify that this Certificate of Compliance documentation is accurate and complete and that I am eligible to accept responsibility for the design identified on this Certificate of Compliance

Name:	Company:	Phone Number:
Signature:	CSLB License:	Date: