Public Works
Building Inspection
311 Vernon Street
Roseville, California 95678-2649

ENV-1C ALT Nonresidential Reroof

CERTIFICATE OF COMPLIANCE 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 roofs using the Prescriptive Component Approach. (NOTE: If the roofing product is not CRRC certified, this compliance approach cannot be used. You will need to provide an Overall Envelope Approach or a Performance Approach).*

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

Project Address:	Climate Zone: 11 or 12	Permit Number: BD-

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

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

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

☐	The building is unconditioned and **is exempt** from the "COOL ROOF" 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 "COOL ROOF" 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 "COOL ROOF" requirements.
☐	High-rise residential buildings and hotels and motels with low-sloped (≤ 2:12) roofs in Climate Zone 12 are **exempt** from the "COOL ROOF" requirements.
☐	Roof coverings <u>that meet all</u> of the following are **exempt** from the "COOL ROOF" requirements. 1. The existing roof has a rock or gravel surface; and 2. The new roof has a rock or gravel surface; and 3. There is no removal of existing layers of roof coverings of more than 50 percent of the roof or more than 2,000 square feet of roof, whichever is less; and 4. There is no recoating with a liquid applied coating; and 5. There is no installation of a recover board, rigid insulation or other rigid, smooth substrate to separate and protect the new roof recovering from the existing roof.
☐	The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels is exempt from the "COOL ROOF" requirements. However, the remainder of the roof area is **not exempt** from the "COOL ROOF" requirements.
☐	None of the above and the project or building is **not exempt** from the "COOL ROOF" 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 – Insulation Requirements (Select the applicable, then go to Step 6) ☐ **N/A** ☐ **Pass** ☐ **Fail**

☐	Low-sloped (≤ 2:12) roof areas are <u>not exposed</u> to the roof deck or to the recover boards.
☐	Low-sloped (≤ 2:12) 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 (Complete the applicable table for the proposed Cool Roof and/or Liquid Coatings, then go to Step 7)

☐ **Pass** ☐ **Fail**

Table A – Cool Roof

Low-sloped (≤ 2:12) nonresidential, high-rise residential buildings, hotels and motels 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.*
Lightweight steep-sloped (> 2:12) roofing materials*, weighing less than 5 lbs/ft² 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.*
Heavyweight steep-sloped (> 2:12) roofing materials*, weighing 5 lbs/ft² or more must have a minimum aged solar reflectance of 0.15 and a minimum thermal emittance of 0.75 or a minimum solar reflectance index (SRI) of 10.*

CRRC Product ID Number[1]	Roof Slope ≤ 2:12	Roof Slope > 2:12	Product Weight < 5lb/ft²	Product Weight ≥ 5lb/ft²	Product Type[2]	Aged Solar Reflectance[3]		Thermal Emmitance	SRI[5]
	☐	☐	☐	☐		☐[4]			
	☐	☐	☐	☐		☐[4]			
	☐	☐	☐	☐		☐[4]			
	☐	☐	☐	☐		☐[4]			

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
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(ρinitial – 0.2) to obtain a calculated aged value. Where ρ is the Initial Solar Reflectance. From the Cool Roof Rating Council's Rated Product Directory.
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 spreadsheet calculator at http://www.energy.ca.gov/title24/

Table B – Liquid Coatings

☐ **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 the minimum performance requirements or shall comply with the selected exception.

Exceptions

☐ Aluminum-Pigmented Asphalt Roof Coating shall meet the requirements of ASTM D2824 or ASTM D69848 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 C1583m ASTM D822, and ASTM D5870.

MINIMUM PERFORMANCE REQUIREMENTS FOR LIQUID APPLIED ROOF COATINGS

Physical Property	**ASTM Test Procedure**	**Requirement**
Initial percent elongation (break)	D 2370	Minimum 200% 73 ºF (23 ºC)
Initial percent elongation (break) OR Initial Flexibility	D 2370 D522, Test B	Minimum 60% 0ºF (-18 ºC) Minimum pass 1" mandrel 0ºF (-18 ºC)
Initial tensile strength (maximum stress)	D 2370	Minimum 100 psi (1.38 Mpa) 73 ºF (23 ºC)
Initial tensile strength (maximum stress) OR Initial Flexibility	D 2370 D522, Test B	Minimum 200 psi (2.76 Mpa) 0ºF (-18 ºC) Minimum pass 1" mandrel 0ºF (-18 ºC)
Final percent elongation (break) after accelerated weathering 1000 h	D 2370	Minimum 100% 73 ºF (23 ºC)
Final percent elongation (break) after accelerated weathering 1000 h OR Flexibility after accelerated weathering 1000h	D2370	Minimum 40% 0ºF (-18 ºC) Minimum pass 1" mandrel 0ºF (-18 ºC)
Permeance	D 1653	Maximum 50 perms
Accelerated weathering 1000 h	D 4798	No cracking or checking[1]

Footnote: 1 Any cracking or checking visible to the eye fails the test procedure.

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

Document Author's Declaration Statement

I certify that this Certificate of Compliance documentation is accurate and complete.

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