

Re-roofing and the 2016 California Energy Compliance Requirements for Cool Roof

(Important information you need to know before obtaining a re-roof permit)

Beginning January 1, 2017, the California Energy Commission (CEC) has adopted new requirements for residential and commercial re-roofing projects. When more than 50% of the exterior surface of a **residential** roof is being replaced, the roofing product must meet the requirements for a cool roof, see below. Roof area covered by building integrated photovoltaic and/or solar thermal panels is not required to comply with cool roof requirements. Roof areas not covered by photovoltaic or solar thermal panels shall comply with cool roofing requirements. All commercial re-roof projects must include the installation of roofing materials meeting the required specifications detailed in the following table.

Within the City of Sacramento & climate zone 12			
		Residential	Commercial
Low Sloped Roofs \leq 2:12	Aged solar Reflectance	N/R	.63
	Thermal Emittance	N/R	.75
Steep Sloped Roofs > 2:12	Aged solar Reflectance	.20	.20
	Thermal Emittance	.75	.75

Exceptions and Alternatives which may apply to **residential** re-roof projects with a roof slope greater than 2:12 (steep slope roofs):

- (a) Mass roof 25 lbs. or greater (uncommon situation such as sod roof);
- (b) Air space 1 inch from top of roof deck to bottom of roofing;
- (c) Roofing product has a profile ratio of raise to width of 1 to 5 for 50% or greater of the width of the roofing product;
- (d) Ducts already meet Section 150.1(c) insulation and duct leakage requirements;
- (e) Roof has R-38 insulation;
- (f) Roof has a radiant barrier;
- (g) No ducts are installed in the attic; or
- (h) R-4 insulation above the roof deck

A Certificate of Compliance Energy form CF1R-ALT-05-E must be completed as applicable to a re-roof project, and submitted with the permit applications. Please see the user instructions in form CF1R-ALT-05-E and the form must be signed by the Document author and the Building Designer (i.e. the contractor or home owner).

At final inspection an Installation Certificate form CF2R-ALT-05-E must be completed by the installing contractor and submitted to the owner and reviewed by the building inspector.

Roofing products that are used for compliance with the energy standards are required to be tested and labeled by the Cool Roof Rating Council (CRRC). The roofing products manufacturer must have its roofing product tested for solar reflectance and thermal emittance and be listed in the CRRC's Rated Product Directory (www.coolroofs.org) and be labeled according to the CRRC procedures.

Attached you will find the CF1R-ALT-05-E short form. For more information you can visit the California Energy Commission website at <http://www.energy.ca.gov/title24/2016standards/index.html>

CERTIFICATE OF COMPLIANCE FOR REROOFS **CF1R-ALT-05-E (short form)**

Prescriptive Residential Alterations
 Project Name: _____ Date Prepared: _____

GENERAL INFORMATION					
01	Project Name:		02	Date Prepared:	
03	Project Location:		04	Building Front Orientation (deg or cardinal):	
05	CA City:		06	Number of Altered Dwelling Units:	
07	Zip Code:		08	Fuel Type:	
09	Climate Zone		10	Total Conditioned Floor Area (ft2):	
11	Building Type:		12	Slab Area (ft2)	
13	Project Scope:				

ROOF REPLACEMENT (Prescriptive Alteration, Section 150.2(b)1H)												
01	02	03	04	05	06	07	08	09	10	11	12	13
Method of Compliance	Roof Pitch	Exception (see below for code)	CRRRC Product ID Number	Product Type	R-value Deck Insulation	Proposed				Minimum Required		
						Initial Solar Reflectance	Aged Solar Reflectance	Thermal Emittance	SRI (Optional)	Aged Solar Reflectance	Thermal Emittance	SRI (Optional)

NOTES

- Roof area covered by building integrated photovoltaic panels and solar thermal panels are exempt from the above Cool Roof requirements.
- Liquid field applied coatings must comply with installation criteria from section 110.8(i)4.

Exceptions and Alternatives for Section 3 of Roof Replacement

- (a) Mass roof 25 lbs or greater (uncommon situation such as sod roof);
- (b) Air space 1 inch from top of roof deck to bottom of roofing;
- (c) Roofing product has a profile ratio of raise to width of 1 to 5 for 50% or greater of the width of the roofing product;
- (d) Ducts already meet Section 150.1(c) insulation and duct leakage requirements;
- (e) Roof has R-38 insulation;
- (f) Roof has a radiant barrier;
- (g) No ducts are installed in the attic; or
- (h) R-4 insulation above the roof deck

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system identified on this Certificate of Compliance (responsible designer).
3. That the energy features and performance specifications, materials, components, and manufactured devices for the building design or System design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

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