

RESIDENTIAL COOL ROOF WORKSHEET AND REQUIREMENTS

Address _____ Permit # _____

Under the provisions of the 2013 California Energy Code §152(b) H, Cool Roofs are required when more than 50% of a roof OR more than 1000 Sq Ft of roof, (whichever is less) is to be replaced or by exception below:

- Low Slope Roofs, ($\leq 2/12$) shall have a minimum aged solar reflectance of 0.63 and a minimum thermal emittance of 0.75 or a minimum SRI of 0.75,
- Steep Pitch Roof, ($> 2/12$) less than 5 PSF shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75 or a minimum SRI of 16, (i.e. **Asphalt shingles**)
- Steep Pitch Roof, ($> 2/12$) equal to or more than 5 PSF shall have a minimum aged solar reflectance of 0.15 and a minimum thermal emittance of 0.75 or a minimum SRI of 10, (i.e. **Concrete, clay tiles or slate**)

Check applicable box(s) below:

- If using a cool roof material complete & submit CF-1R ALT Form (provide manufacturers specifications) or by exception below:
 - The Building does not have any ductwork in attic space,
 - Radiant Barrier is/shall be installed, (provide specification sheet),
 - Attic space does/will have insulation installed with a minimum R-38 value, (Provide insulation certificate)
 - Ducts in attic will be insulated and sealed, (leak test certificate CF3R supplied by HERS rater)
 - R-4 Insulation over the roof deck above vented attic, or at least 1" air space is provided between the roof deck to the bottom of the roofing product, (provide specification sheet and plans),
 - Cool Roof Requirements Not applicable if the building can show compliance using a performance approach. Provide plans & energy compliance documentation.

Attic space shall be/is provided with ventilators equal to or greater to 1FT^2 for every 300FT^2 of attic space, provided that at least 40% and not more than 50% of the required venting is located in the upper portion of the attic no more than 3 ft below the ridge with balance in lower, provide calculations and specify the required attic ventilation area, and the attic ventilation type, size and locations:

Roof Area _____ sq ft \div 300 = _____ sq ft of required ventilation
 _____ sq ft of required ventilation X 144 = _____ sq in ventilators req.

Type and Size of Vents: _____

Eave vents = _____ sq in X _____ = _____ sq in
(free vent area) (quantity) (total sq in)

Upper vents = _____ sq in X _____ = _____ sq in
(free vent area) (quantity) (total sq in)

Reviewed & Approved By _____ Date _____

Residential Cool Roof Requirements

Important information you need to know BEFORE obtaining a re-roof permit!

The California Energy Commission (CEC) has adopted requirements for re-roofing projects.

Beginning July 1st, 2014 when more than 50% of the exterior surface of the roof or more than 1,000-sq. ft. of roof is replaced, whichever is less, the roofing product must meet the following prescriptive requirements for Cool Roofs.

Alternatives to the Cool Roof requirement may be one of the following:

1. R4 insulation installed on the deck above vented attic; or
2. 1 inch air-space is provided between the top of the roof deck to the bottom of the roofing product; or
3. If existing ducts in the attic are insulated and sealed according to CEC Regulations §151(f)10 and tested (leak test certificate CF3R required by HERS rater); or
4. Buildings with at least R-38 ceiling insulation; or
5. Radiant barrier in the attic meeting the requirements of §151(f)2 ; or
6. Buildings with no ducts in the attic; or
7. The installed roofing product has a profile ratio to width of 1 to 5 for 50% or greater of the width of the roofing product


For roof slopes of greater than 2:12:

1. Roofing products with a density of less than 5lbs/sq. ft. (i.e. Asphalt shingles) shall have a minimum 3-year aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a Solar Reflectance Index (SRI) of 16.
2. Roofing products with a density of 5lbs/sq.f t. or more (i.e. Concrete, clay tiles or slate) shall have a minimum 3-year aged solar reflectance of 0.15 and a minimum thermal emittance of 0.75, or a SRI of 10.
3. **Low Slope Roofs**, ($\leq 2/12$) shall have a minimum aged solar reflectance of 0.63 and a minimum thermal emittance of 0.75 or a minimum SRI of 0.75

New Construction Exception 150.1 (c) 11

1. Buildings intergraded with photovoltaic panels and buildings intergraded with solar thermal panels are exempt.
2. Roof constructions that have thermal mass over the roof membrain with a weight of at least 25lb/sq ft are exempt.

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).

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|--|-------------------------|------------------|---------|
|  | Initial | Weathered | |
| | Solar Reflectance | 0.00 | Pending |
| | Thermal Emittance | 0.00 | Pending |
| | Rated Product ID Number | ----- | |
| Licensed Seller ID Number | ----- | | |
| Classification | Production Line | | |
| <small>Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary. Manufacturers of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</small> | | | |

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 CRRC procedures. Below is an example of an approved CRRC product label.