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## Re-Roofing and the 2008 California Residential Energy Compliance Requirements for Cool Roofs

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

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

Beginning January 1, 2010 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.

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.ft. 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.


Or,

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

1. Insulation with a thermal resistance of at least  $0.85 \text{ hr} \cdot \text{ft}^2 \cdot ^\circ\text{F} / \text{Btu}$  or at least 3/4 inch air-space is added to the roof deck over an attic; or
2. If existing ducts in the attic are insulated and sealed according to CEC Regulations §151(f)10 ; or
3. Buildings with at least R-30 ceiling insulation; or
4. If the building with a radiant barrier in the attic meeting the requirements of §151(f)2 ; or
5. Buildings with no ducts in the attic; or
6. If in climate Zones 10, 11, 13, and 14, R-3 or greater roof deck insulation above vented attic.

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 (see <http://www.coolroofs.org>) and be labeled according to CRRC procedures. Below is an example of an approved CRRC product label.

		<u>Initial</u>	<u>Weathered</u>
	Solar Reflectance	0.00	Pending
	Thermal Emittance	0.00	Pending
	Rated Product ID Number	_____	
	Licensed Seller ID Number	_____	
	Classification	Production Line	
<p>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.</p> <p>Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</p>			

For more information, visit the California Energy Commission webpage at [www.energy.ca.gov](http://www.energy.ca.gov). For questions please contact the California Energy Commission at 1-800-772-3300.