

**ENVELOPE COMPONENT APPROACH**

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**ENV-2C**

**CITY OF TRACY NONRESIDENTIAL REROOF**

Address:

Date:

Permit #:

**EXTERIOR ROOFING PRODUCT (COOL ROOFS)** - See Section 3.3 in the Nonresidential Manual and §118(i) and §143 (a)1A in the Energy Standards for further description about exterior roofs and mandatory requirements for Cool Roofs.

(Note if the roofing product is not CRRC certified, this compliance approach cannot be used). Go to Overall Envelope Approach or Performance Approach

**CHECK APPLICABLE BOX BELOW IF EXEMPT FROM ONE OF THE ROOFING PRODUCT MINIMUM PRESCRIPTIVE REQUIREMENTS:**

High-rise residential buildings and hotels and motels with low-sloped roofs in Climate Zones 1 through 9, 12 and 16 are exempted from the low-sloped roofing criteria.

The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels are exempted solar reflectance and thermal emittance or SRI.

Roof construction with thermal mass over the roof membrane with a weight of at least 25 lb/ft<sup>2</sup> is exempted from the Cool Roof criteria.

CRRC Product ID Number <sup>1</sup>	Roof Slope		Product Weight		Product Type <sup>2</sup>	Aged Solar Reflectance <sup>3,4</sup>		Thermal Emittance	SRI <sup>5</sup>
	≤ 2:12	>2:12	< 5lb/ft <sup>2</sup>	≥ 5lb/ft <sup>2</sup>					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <sup>4</sup>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <sup>4</sup>			
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <sup>4</sup>			

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](http://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  $(0.2 + 0.7(p_{initial} - 0.2))$  to obtain a calculated aged value. Where  $p$  is the Initial Solar Reflectance.
4. Check box if the Aged Reflectance is a calculated value using the equation above.
5. Calculate the SRI value by using the SRI-Worksheet at <http://www.energy.ca.gov/title24/> and enter the resulting value in the SRI Column above and attach a copy of the SRI-Worksheet to the ENV-1C.

To apply **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 minimum performance requirements listed in §118(i)4. Select the applicable coating:

Aluminum-Pigmented Asphalt Roof Coating       Cement-Based Roof Coating       Other \_\_\_\_\_

**Manufacturer:** \_\_\_\_\_ **Model:** \_\_\_\_\_

**Brand:** \_\_\_\_\_ **Color:** \_\_\_\_\_