

ENVELOPE COMPONENT APPROACH

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E REROOFING
Envelope Component Approach for Reroofing (Nonresidential, High-Rise Residential, Hotel/Motel Guest Room)	(Page 1 of 2)

A. GENERAL INFORMATION			
Project Location:		City, Zip Code:	ONTARIO, CA _____
Compliance Method:	<input type="checkbox"/> Component <input type="checkbox"/> Unconditioned (file Affidavit)	Climate Zone:	10
Permitted Scope of Work:	<input type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Alteration	<input type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
Building Type:	<input type="checkbox"/> Nonresidential <input type="checkbox"/> High-Rise Residential <input type="checkbox"/> Hotel/Motel Guest Room		

E. ROOFING PRODUCTS (COOL ROOF)										
1	2	3	4	5			6			11
Mass Roof 25 lb/ft ² or greater	Roof Pitch	CRRC Product ID Number	Product Type	Proposed			Minimum Required			Comments
				Aged Solar Reflectance	Thermal Emittance	SRI ² (Optional)	Aged Solar Reflectance	Thermal Emittance	SRI (optional)	
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/> An aged solar reflectance less than 0.63 is allowed provided the maximum roof / ceiling U-factor in TABLE 140.3 is not exceeded										
<input type="checkbox"/> High-rise residential buildings and Hotels and Motels with low-sloped roofs in Climate Zones 1 through 8, 12 and 16 are exempted from aged Solar Reflectance and emittance requirements.										
<input type="checkbox"/> High-rise residential buildings and Hotels and Motels with steep-sloped roofs in Climate Zones 1 and 16 are exempt from aged Solar Reflectance and emittance requirements.										
<input type="checkbox"/> The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels are exempt from aged Solar Reflectance and emittance requirements										
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 §110.8(i)4. Select the applicable coating:										
<input type="checkbox"/> Aluminum-Pigmented Asphalt Roof Coating				<input type="checkbox"/> Cement-Based Roof Coating			<input type="checkbox"/> Other _____			

NOTES:

1. Check the box if the aged Solar reflectance was not available in the Cool Roof Rating Council's Rated Product Directory, Then use the equation in Section 110.8(i)2 where the Initial Reflectance value from the same directory and use the equation $(0.2+B(\rho_{initial} - 0.2))$ to obtain a calculated aged value. Where ρ is the Initial Solar Reflectance and B is either set to 0.65 for Field-Applied Coatings or it is set to 0.70 for all other roofing products other than Field-Applied Coating.
2. Calculate the SRI Value by using the SRI-Worksheet at (TBD) and enter the resulting value in the SRI Column above and attach a copy for the SRI-Worksheet NRCC-ENV-03-E to the to this form.

ROOFING PRODUCTS - COOL ROOF

Roofing requirements are found in Sections 110.8(i) and 140.3(i). Depending on the climate zone and roof slope, a cool roof (defined as a minimum aged solar reflectance and thermal emittance, or a minimum SRI) may be required by Tables 140.3 B, C or D.

Instructions for sections with column numbers are given below:

1. **Mass roof 25 lb/ft2 or greater:** Mass roofs are not required to have a cool roof even if the climate zone specifies minimum performance requirements.
2. **Roof Pitch:** Expressed as 4:12, for example, which means the roof rises 4 foot within a span of 12 feet. When roofs have multiple pitches the requirements are based on the pitch of 50% or more of the roof.
3. **The CRRC Product ID Number** is obtained from the Cool Roof Rating Council’s Rated Product Directory at www.coolroofs.org/products/search.php. Products are listed by manufacturer, brand, and type of installation, roofing material, and color, as well as product performance.
4. **Product type:** See Cool Roof Rating Council’s directory. Generally product types include single-ply roof, wood shingles, asphalt roof, metal roof, and tile roof.
5. **Proposed Aged Solar Reflectance:** Value is from the Cool Roof Rating Council’s Rated Product Directory. If the aged value is not available, calculate the SRI using the initial solar reflectance on NRCC-ENV-03-E (Cool Roof and SRI Worksheet).
6. **Proposed Thermal Emittance:** From the product specifications. Skip this value if using a calculated SRI.
7. **Proposed SRI:** It is optional to meet either the SRI or the solar reflectance/thermal emittance. To calculate the SRI value use calculation from <http://www.energy.ca.gov/title24/> . Enter the resulting value in the SRI Column above and attach a copy of the WS-04.
8. **Minimum Required Aged Solar Reflectance:** Based on climate zone and roof slope.
9. **Minimum Required Thermal Emittance:** Based on climate zone and roof slope.
10. **Minimum SRI:** Based on climate zone and roof slope.
11. **Comments:** Any notes regarding location, unique conditions, or attachments, such as an SRI worksheet. If the cool roofing requirements will be met by a liquid field applied coating, Section 110.8(i)4 requires the coating be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the manufacturer.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
• I certify that this Certificate of Compliance documentation is accurate and complete.	
Name: <input type="checkbox"/> Owner <input type="checkbox"/> Authorized agent <input type="checkbox"/> Contractor	Signature:
Company :	Contractor license #:
Address:	Phone:
City/State/Zip:	Date:

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