



Know What's
COOL



Cool Roofs and the
Cool Roof Rating Council

for Architects, Roof Specifiers,
Consultants and Contractors

YOU want a reliable source of information about roofing products.

YOUR CLIENT wants a roof that provides optimal performance, comfort and aesthetics.

EVERYBODY wants credible roof performance data at their fingertips.

THE COOL ROOF RATING COUNCIL is the *only* rating system providing independent, reliable roof performance data.

“Cool” roofing is the fastest growing sector of the roofing industry, thanks to increasing awareness of the benefits of cool roofs. Use our online Rated Products Directory to help you specify a roofing product that meets your clients’ needs.

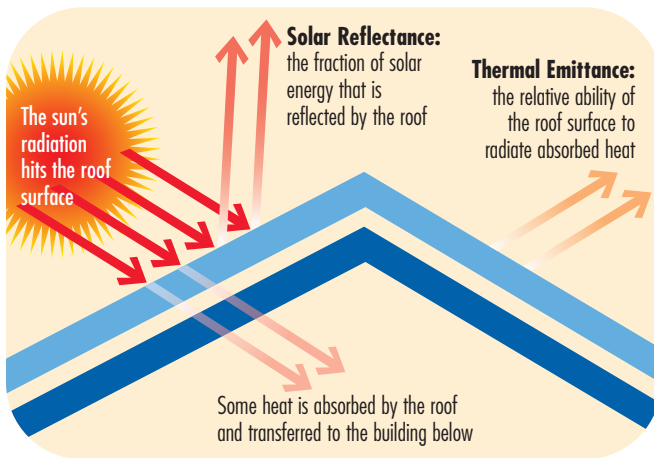
WHAT IS THE COOL ROOF RATING COUNCIL?

The Cool Roofing Rating Council (CRRC) is a non-profit membership organization. Formed in 1998, the CRRC maintains a credible, third-party rating system to measure and label the radiative properties of roofing materials.

CRRC Product Rating Program

The core of the CRRC is its Product Rating Program through which roofing product manufacturers can label their products with solar reflectance and thermal emittance values, as measured by CRRC Accredited Independent Testing Laboratories (AITL)¹. Both properties are measured from 0 to 1 and the higher the value, the “cooler” the roof. The CRRC assures the accuracy of our ratings

through our Random Testing Program, which verifies that products sold reflect their lab-tested values.



Initial and Aged Testing

The CRRC Rating Program requires initial and aged product testing. Upon completion of initial testing, the AITL forwards all samples to CRRC Accredited Test Farms in three locations representing different climates for 3-year weather exposure. Upon removal, they are returned to an AITL, unwashed, for an aged rating. Ratings are published on the

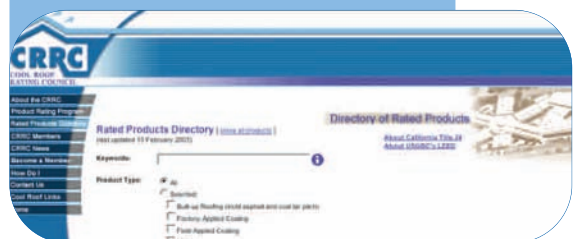
CRRC Product Directory and may be used on the CRRC Product Label once initial testing is complete. Aged results are published after 3 years.

Searchable Rated Products Directory

You can use the Product Directory to find a variety of roofing options that meet your specifications. This tool allows users to search for products by product type, brand name, minimum radiative property values and other parameters, making your search quick and easy—and it's free!

All types of common roofing products—from field-applied coatings and factory-coated metal to capsheets and single-ply to shingles and tiles—come in “cool” varieties. There are even “cool” dark-colored products, so no matter what roof type your client is interested in, you can find a “cool” product to use.

Look for products on the
CRRC Rated Products Directory at:
www.coolroofs.org/products/search.php



¹ Manufacturer-tested data may be used for the radiative properties of custom colors.

Benefits of a
**COOL
ROOF**



A COOL ROOF CAN:

- **Increase occupant comfort** by keeping the building cooler during hot summer months.
- **Cut costs by:**
 - reducing the need for air-conditioning and extending the life of the cooling equipment. Studies have shown typical cooling energy savings of 10-30%.
 - decreasing roof maintenance costs (cool roofs are expected to last longer than the average roof).
- **Address air pollution and Global Warming concerns** by lowering CO₂ and other emissions associated with fossil fuel-generated electricity used for air-conditioning.
- **Reduce the “Urban Heat Island Effect”** by reflecting heat back to the atmosphere. An Urban Heat Island occurs when a city is hotter than the surrounding rural areas due to dark surfaces, like roofs and roads that absorb heat from the sun, and less shading vegetation.
- **Help with local code compliance** since a growing number of building codes have cool roof requirements.

**COOL
FACT #1**

Black surfaces in the sun can become up to 90° F hotter than the most reflective white surfaces (LBNL Heat Island Group).

**COOL
FACT #2**

Nationwide implementation of cool roofs could mean an annual savings of \$1 billion in cooling costs! (LBNL Heat Island Group).

CODES AND PROGRAMS FOR COOL ROOFS

Recognition of the benefits of cool roofing has led to the adoption of cool roof requirements in several building energy codes, as well as the inclusion of cool roofing in green building initiatives. Many electric utilities offer rebates for cool roofing materials to help save energy and reduce peak demand.

Building Energy Codes

Many jurisdictions have adopted Building Energy Codes to mandate energy-efficient construction practices. In the US, several states and jurisdictions have adopted ASHRAE's standards, while others, like California and the City of Chicago, have developed their own building codes.

- California's Building Energy Efficiency Standard (Title 24), www.energy.ca.gov/title24/
- The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1 Energy Standard for Buildings Except Low-Rise Residential Buildings and Standard 90.2 Energy Efficient Design of Low-Rise Residential Buildings, www.ashrae.org
- The City of Chicago's Energy Conservation Code, <http://egov.cityofchicago.org>

Green Building Programs

In an effort to encourage sustainable building practices, several organizations have developed voluntary guidelines and certification programs, otherwise known as green building programs, which reward the use of environmentally-friendly building materials and design. Some of these programs give credit for using a cool roof. Examples include:

- US Green Building Council's Leadership in Energy and Environmental Design® (LEED), www.usgbc.org
- The Green Building Initiative's Green Globes™, www.thegbi.com/greenglobes

Utility Rebate Programs

Several electric utility companies offer rebates for the installation of cool roofing materials in new construction and/or roof retrofits. Please check with your local utility company to see if they offer a cool roof rebate. Here are a few examples of existing utility rebate programs:

- Pacific Gas and Electric Company (PG&E), www.pge.com
- Southern California Edison (SCE), www.sce.com
- Idaho Power, www.idahopower.com
- City of Austin, www.austinenergy.com

The U.S. Environmental Protection Agency's (EPA) ENERGY STAR® roof product program is distinct from the CRRC, but complements our organization by creating a cool roof label for roofing products that is widely recognized by consumers. ENERGY STAR is a voluntary program which sets minimum performance standards and allows manufacturer-tested data.

FREQUENTLY ASKED QUESTIONS

1. Are all of the roofing products on the CRRC Rated Products Directory “cool”?

No. The CRRC does not set a definition for “cool,” we leave this to the code bodies and programs that reference our rating system. The CRRC simply lists the measured radiative property values on our Directory. A product’s placement on the CRRC Directory does not mean that the product is “cool” as defined by any particular code body or program.

2. Are cool roofs affordable?

Yes. Many cool roof products cost the same amount as other comparable roofing materials, and for those that cost slightly more, the difference may be quickly recovered in savings from reduced energy costs. Additionally, some electric utilities offer rebates, which reduce the cost of cool roofing materials.

3. Will cool roofs significantly increase my heating bills in the winter months?

No. The roof is an insignificant source for heat gain in winter. While cool roof owners may pay slightly more to heat their buildings, this amount is usually insignificant compared to the cooling energy savings during the summer.

4. Is the CRRC a “California” program?

No. While it is true that California’s Building Energy Efficiency Standard, Title 24, refers exclusively to the CRRC’s Product Rating Program for cool roof credit, aside from the location of the CRRC headquarters office in Oakland, CA, the CRRC is not a “California” program. Any other city or state code or program, mandatory or voluntary, may reference CRRC’s Product Rating Program.

For more detailed answers to these questions and more FAQs, please visit www.coolroofs.org/faqs





BECOME A CRRC MEMBER

Your success depends on your ability to stay on top of the latest industry developments and to respond effectively to the needs of your clients.

Membership in the CRRC brings tangible benefits:

- Use of the CRRC Member Logo
- Timely updates on the latest industry developments
- Networking opportunities with roofing industry leaders
- Demonstration of your organization's leadership in the marketplace
- Having your say in the direction of the CRRC's programs and activities, by:
 - Voting on critical issues and the Board of Directors election
 - Running for a position on the Board of Directors
 - Attending the Annual Membership Meeting

CONTACT US

Visit the CRRC at www.coolroofs.org
or contact us directly:
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info@coolroofs.org

