1. CRRC Strategic Plan Update
2. Roof Program & Policy Updates
3. Website & Directory Updates
4. Outreach Update
5. Random Testing Update
CRRC

STRATEGIC PLAN UPDATE

Jeff Steuben
Executive Director
Update Strategic Plan every five years
2009, 2014, 2019
- Survey of CRRC Membership
- Professionally facilitated in-person planning session
- Plan development and refinement
- Establish goals & objectives
- Regular updates to Board of Directors
Strategic Vision Statement
The Leader in Cool Science

Strategic Priority Areas

**Code Adoption**
1-1 Increase references to CRRC in codes, regulations, and voluntary programs

**Growth**
2-1 Expand Rating Program
2-2 Increase visibility and value of CRRC participation

**Education**
3-1 Improve public awareness and comprehension of cool surfaces

**Technical Advancement**
4-1 Grow the science of radiative property measurements
4-2 Support the development of methods, equipment, & standards for radiative property measurements
4-3 Expand the technical brain trust of the organization
PROGRAM & POLICY UPDATES

Jeff Steuben
Executive Director
STAFF CHANGES

Mischa Egolf left CRRC in early 2021
Audrey McGarrell joined the CRRC staff as a Project Coordinator

• Lab coordination
• Working group facilitation
• Technical review
• Outreach and education support
• Revisions to CRRC label approved by the Board on January 29, 2021 and April 8, 2021
• Simplified text and format
• Consistent dimensions across different labels

<table>
<thead>
<tr>
<th>Solar Reflectance</th>
<th>Initial</th>
<th>Aged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Emittance</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The ratings above are subject to CRRC rating program conditions, requirements, and limitations. Visit coolroofs.org for important information and disclaimers about CRRC rating conditions, requirements, and limitations.

<table>
<thead>
<tr>
<th>Solar Reflectance</th>
<th>Initial</th>
<th>Aged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Emittance</td>
<td>0.00</td>
<td>Pending</td>
</tr>
</tbody>
</table>

Rated Product ID #: 0000-0000

Match ID number on packaging with checked box on this label:

<table>
<thead>
<tr>
<th>Product A</th>
<th>Product B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>Initial</td>
</tr>
<tr>
<td>Aged</td>
<td>Aged</td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Pending</td>
<td>Pending</td>
</tr>
<tr>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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• Reporting of “overall thickness” changed to “minimum thickness”
• Requirement changed from ±20% of overall thickness to ≥ minimum thickness
AGGREGATE EMITTANCE TEST METHOD

• Board approved on April 8, 2021
  – Vetted by Methods & Instruments Subcommittee
  – Approved by Technical Committee (March 2021)
• Named in honor of the late Charlie Moore to recognize his substantial contributions to it
• Valid on roofing aggregate up to \( \frac{5}{8} \) inch
• Optional rating process for field-applied roof coating products
• Allows listing of rated values tested over smooth and rough substrates
• Policy approved by Board on Nov. 12, 2020
• Effective Date of September 1, 2021
• Licensees will have one year to transition to new labels; products rated after the effective date will use the new label
• **Smooth substrate** - bare aluminum panel
• **Rough substrate** - apply base coat of coating to aluminum panel, and apply granules to rejection
Industry & Trade Association Members
Jeff Blank, SR Products
Chadwick Collins, RCMA
George Daisey, Dow
Steven Heinje, GAF
Al Janni, Duro-Last
Jim Kirby, GAF
Hal Leland, Western Colloid
Ariel Lender, Polyglass
Randy Ober, SPRI
Gary Whittemore, Sika Sarnafil
Tim McQuillen, Johns Manville
Jim Arnold, Simon Products
Chris Salazar, KARNAK
Jennifer Schmidt, Polyglass
Rick Duncan, Spray Polyurethane Foam Alliance
Heather Estes, GAF
Dan Varvais, NCC
Brent Crenshaw, EPA
Amir Khan, Gardner-Gibson
Sridhar Iyer, BASF
Sid Dinwiddie, ARMA

General Interest Members
Brent Barbeau, PRI
Andre Desjarlais, ORNL
Dave Roodvoets, DLR Consultants
Dave Yarbrough, R&D Services
Payam Bozorgchami, CEC
Stuart Ruis, R&D Services
Frank Klink, Retired (3M)
• Working Group driven policy and procedure
  – Multiple studies and practical evaluations
• Regular and frequent Working Group Meeting
  – 2017–2019 - 6 times
  – 2020 - 11 times
  – 2021 - 4 times (YTD)
• Updated Rated Product Labels
• Explanatory disclaimer on CRRC Directory
  - Describes what the “(smooth)” and “(rough)” notation means

<table>
<thead>
<tr>
<th>Rated Product ID #: 0000-0000</th>
<th>Smooth</th>
<th>Rough</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Reflectance</td>
<td>Initial / Aged</td>
<td>Initial / Aged</td>
</tr>
<tr>
<td>Thermal Emittance</td>
<td>0.00 / Pending</td>
<td>0.00 / Pending</td>
</tr>
<tr>
<td></td>
<td>0.00 / Pending</td>
<td>0.00 / Pending</td>
</tr>
</tbody>
</table>

The ratings above are subject to CRRC rating program conditions, requirements and limitations. Visit coolroofs.org for important information and disclaimers about CRRC rating requirements and limitations. For the purposes of a CRRC rating, a rough substrate is defined as a surface equally or more coarse than a new (i.e., unweathered) #11 granulated modified bitumen sheet.
WEBSITE & DIRECTORY UPDATES

Jeff Steuben
Executive Director
• Complete overhaul of coolroofs.org underway
• Modernize look and feel of website
• Improve navigation and organization
• Replace old content management system
• Release by end of 2021
The Roof Product Rating Program

The CRRC administers a Product Rating Program in which companies can label roof surface products with radiative property values. The CRRC does not set a minimum definition for “cool”; the CRRC simply lists the measured radiative property values on the Rated Products Directory. Any roofing product can be tested as long as it is in compliance with the CRRC-1 Product Rating Program Manual (PRP). A product’s placement on the Rated Products Directory does not mean that the product is “cool” as defined by any particular code body or program.

The Rapid Ratings Program, an optional product rating process which develops interim laboratory-aged values for roofing materials, allows licensees to list laboratory-aged radiative property values in the Rated Products Directory at an accelerated rate—aging simulation is completed in less than a week! To learn more about CRRC Rapid Ratings or to outline a Rapid Ratings application, visit the Rapid Ratings page.

All radiative property testing is conducted by accredited testing laboratories and all laboratory-aged testing is conducted by approved CRRC Rapid Ratings laboratories (see CRRC Accredited Testing Laboratories (ATL) and AtlMs) for a list). Solar reflectance can be measured in accordance with ASTM test methods E709, E188, ES10 and CRRC-1 Method #1. Thermal emittance is measured in accordance with ASTM C1371 or the Slide Method (determined by roofing product type). For aged ratings, product specimens are exposed for three years at the CRRC Approved Test Field. Product ratings are verified periodically through the CRRC’s Random Testing Program.

How to Participate in the Roof Rating Program

Become a Licensee
Something about become licensed with CRRC
Learn More

Rate a Product
Something about rating products
Learn More

Product Testing
Something about product testing
Learn More
• New front-end user interface to improve:
  − Speed
  − Functionality
  − Usability
• Mobile-friendly version
## 3071 results

<table>
<thead>
<tr>
<th>CRRC PROD. ID</th>
<th>MANUFACTURER</th>
<th>BRAND AND MODEL</th>
<th>PRODUCT TYPE</th>
<th>COLOR</th>
<th>SOLAR REFLECTANCE</th>
<th>THERMAL EMITTANCE</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1376-0001</td>
<td>Seal It Services, Inc. dba Bond It</td>
<td>Bond It Seal It One Coat Roof Seal</td>
<td>Fluid-Applied Membrane</td>
<td>Grey, Tan, Bright White</td>
<td>0.65</td>
<td>0.90</td>
<td>79</td>
</tr>
<tr>
<td>1374-0001</td>
<td>Brava Roof Tile</td>
<td>Brava Roof Tile Brava Roof Tile Weathered Shake</td>
<td>Polymer/Composite</td>
<td>Tan, Black, Brown, Multicolor</td>
<td>0.28</td>
<td>0.90</td>
<td>29</td>
</tr>
<tr>
<td>1368-0002</td>
<td>CSL Silicones Inc.</td>
<td>CSL Silicones Inc. Si-COAT 461RC High Solids Silicone Roof Coating</td>
<td>Coating</td>
<td>Bright White</td>
<td>0.72</td>
<td>0.89</td>
<td>88</td>
</tr>
<tr>
<td>1376-0001</td>
<td>Seal It Services, Inc. dba Bond It</td>
<td>Bond It Seal It One Coat Roof Seal</td>
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</tbody>
</table>
CRRC PRODUCT ID
1374-0001
MANUFACTURER
Brava Roof Tile
BRAND
Brava Roof Tile
MODEL
Brava Roof Tile Weathered Shake
TYPE
Polymer/Composite
COLOR
Tan, Black, Brown, Multicolor
RADIATIVE PROPERTIES
<table>
<thead>
<tr>
<th>INITIAL</th>
<th>3 YEAR</th>
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<tbody>
<tr>
<td>Solar Reflectance</td>
<td>0.25</td>
</tr>
<tr>
<td>Thermal Emittance</td>
<td>0.92</td>
</tr>
<tr>
<td>SRI</td>
<td>33</td>
</tr>
</tbody>
</table>
PRODUCT MARKET
All Markets
SLOPE
Both Low and Steep
APPLICATION APPROVAL DATE
DECEMBER 12, 2020
MANUFACTURER CONTACT
Tom Wyatt
678-640-7787
https://bravarooftile.com/
Sort Results
• User feedback: *Where can I buy the product?*

• Products on Directory link to manufacturer homepage
  - e.g., akzonobel.com →
  - Users may not find the product page

• How could the Directory help direct users to the product locally or regionally?
OUTREACH UPDATE

Sarah Schneider
Deputy Director
Rating, Sharing, and Educating on Cool Roofs and More

Jeff Steuben, executive director of the Cool Roof Rating Council (CRRC), joined the CoatingsPro Interview Series to share with us what cool roofs are, how these technologies may be effective, and new developments at CRRC and beyond. Other topics include the organization’s roofing resources and virtual offerings.

(Complete Transcript)

For more information, contact: CRRC, (866) 465-2523, www.coolroofs.org

CoatingsPro Podcast
Interview, October 2020

Scientists look for the Holy Grail: The whitest paint ever,” April 2021
Sustainability in Civil Engineering

Virtual Conference
Thursday, May 13 to Saturday, May 15, 2021

As civil engineers adjust to new climate extremes and design for a more sustainable future, Columbia University ASCE is excited to host a three-day series of panels and presentations discussing adaptations and innovations in the industry.

We invite the civil engineering community in New York and beyond, and all interested in sustainability in the built environment.

REGISTRATION IS NOW OPEN!
ASCECOLUMBIASUSTAINABILITY.EVENTBRITE.COM

Featuring speakers from WSP, Arcadis, AECOM, MTA, NYC DOB, NYC Mayor’s Office of Sustainability, and more!

Presentations of Moynihan Train Hall, East Side Coastal Resiliency Project, Brooklyn Grange, and the Javits Center

Local Governments for Sustainability

Greenbuild International Conference + Expo
RANDOM TESTING PROGRAM UPDATE

Beth James-Bourgeois
Administrative Coordinator
**Purpose:** Quality assurance mechanism for CRRC rated products

<table>
<thead>
<tr>
<th></th>
<th>RANDOM TESTING PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Selection and information gathering</td>
</tr>
<tr>
<td>2</td>
<td>Product collection</td>
</tr>
<tr>
<td>3</td>
<td>Product testing and reporting</td>
</tr>
</tbody>
</table>
### RANDOM TESTING (RT) PROGRAM SELECTION

<table>
<thead>
<tr>
<th>Non-Mandatory Selection</th>
<th>Mandatory Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Random Selection</td>
<td>Made-to Order from previous RT year</td>
</tr>
<tr>
<td></td>
<td>Products rated ≥15 years that have never gone through RT</td>
</tr>
<tr>
<td></td>
<td>Other selections as needed</td>
</tr>
</tbody>
</table>
• COVID-19 disruptions
  – Virtual Sampling
• All rated products are eligible for Random Testing
  – Previously limited to ratings where Product Customer = “End-Users”
2020 Random Testing Product Status Tracking

- Discontinued
- Complete
- Testing
- Collecting

Number of Products

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

Annual General Membership Meeting - June 16, 2021
A significant portion of 2021 RT products are being reformulated.

Of those being testing, 7% are still in procurement.

We expect testing to be complete by the end of the year.
QUESTIONS?