## Technical Committee Roster 2012-2013

<table>
<thead>
<tr>
<th>Voting Member</th>
<th>Company</th>
<th>Alternate</th>
<th>Company</th>
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<tbody>
<tr>
<td>Bill Kirn</td>
<td>Quest Construction Products</td>
<td>Paul Riesebieter</td>
<td>Soprema</td>
</tr>
<tr>
<td>Ronnen Levinson</td>
<td>Lawrence Berkeley National Laboratory</td>
<td>Hashem Akbari</td>
<td>Concordia University</td>
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<tr>
<td>Andre Desjarlais</td>
<td>Oak Ridge National Laboratory</td>
<td>Rhonda Byrne</td>
<td>Intertek</td>
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<tr>
<td>Gary Whittemore</td>
<td>Sika Sarnafil, Inc.</td>
<td>Mike Ennis</td>
<td>Single-Ply Roofing Industry (SPRI)</td>
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<tr>
<td>Bill Morgan</td>
<td>Malarkey Roofing</td>
<td>Darrel Higgs</td>
<td>DPH Consulting</td>
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<td>Scott Kriner</td>
<td>Metal Construction Association</td>
<td>Chuck Praeger</td>
<td>Metal Building Manufacturer's Association</td>
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<td>Richard Slomko, Chair</td>
<td>Atlas Material Testing Solutions</td>
<td>Matthew Friday</td>
<td>Q-Lab Weather Research Service</td>
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<tr>
<td>Ted Best</td>
<td>Valspar</td>
<td>Mark Thimons</td>
<td>American Iron &amp; Steel Institute</td>
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<td>Jay Cruz</td>
<td>Boral Roofing</td>
<td>Rick Olson</td>
<td>Tile Roofing Institute</td>
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<tr>
<td>Kurt Shickman</td>
<td>Global Cool Cities Alliance</td>
<td>Payam Bozorgchami</td>
<td>California Energy Commission</td>
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<td>David Roodvoets</td>
<td>DLR Consultants</td>
<td>Cindy Campbell</td>
<td>Momentum Technologies</td>
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<tr>
<td>Steve Lawrey</td>
<td>CertainTeed Corporation</td>
<td>Ingo Joedicke</td>
<td>Specialty Granules, Inc.</td>
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<td>Kurt Sosinski</td>
<td>Tremco, Inc.</td>
<td>Tim McQuillen</td>
<td>Firestone Building Products</td>
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<td>Greg Peterson, Vice-Chair</td>
<td>Eagle Roofing</td>
<td>Yoshi Suzuki</td>
<td>MCA Clay Tile</td>
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<tr>
<td>Hal Leland</td>
<td>Western Colloid</td>
<td>Frank Klink</td>
<td>3M</td>
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<td>Dave Yarbrough</td>
<td>R&amp;D Services, Inc.</td>
<td>Tyler Westerling</td>
<td>Architectural Testing, Inc.</td>
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2012-2013 Updates & Accomplishments
CRRC Funded Research

- CRRC Board allocated $15,000 for 2013 research projects
- Funded projects
  - Electronic thickness gage round robin
  - E1918 precision & bias study
  - Directionally reflective product ratings
  - Aggregate reflectance study
Interlaboratory Comparison

- Included AITLs and AMTLs
- Results showed high consistency between labs’ reported values
- Reduction in reporting errors from 2011
- Staff investigating outlying data points
Changes to Sample Requirements

• Sample size measured to confirm CRRC minimum dimensions*
  – Tolerance +/- 1 inch per side
  – Measured to nearest ¼ inch
  – Confirmed on Test Results Report (F-2)

• New samples cannot be held without exposure longer than six months

* To be approved by Board
Added:

Electronic gage coating thickness

• ASTM D7091 – Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings…
Approved Test Methods

Added:
Best Practices for Sample Handling*

• ASTM G147 – *Standard Practice for Conditioning and Handling of Nonmetallic Materials for Natural and Artificial Weathering Tests*

* To be approved by Board
Tile Test Method Update

- Aged measurement point locations same as initial for Template Method
- Randomly selected points are exempt
Coating Substrate Testing

- Informed by RCMA and RRCC sponsored studies
- Field-applied coatings will be tested and aged on smooth and rough substrates
- Logistics and implementation date TBD by Technical Committee
Variegated Shingle Test Procedure

• Prepared mono-color shingles tested and aged
• Variegated shingles (final product) initially tested
• Aged SR and TE values calculated based on percentage of granule make-up

<table>
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<tr>
<th>Granule Color</th>
<th>Reflectance</th>
<th>Section 1</th>
<th>Section 2</th>
<th>Overall</th>
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<tr>
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<td>10.0%</td>
<td>45.0%</td>
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<tr>
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<td>0.0%</td>
<td>0.0%</td>
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<tr>
<td>C</td>
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<td>70.0%</td>
<td>32.5%</td>
<td>33.0%</td>
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<tr>
<td>D</td>
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<td>0.0%</td>
<td>0.0%</td>
<td>2.7%</td>
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<tr>
<td>E</td>
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<td>0.0%</td>
<td>22.5%</td>
<td>25.1%</td>
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<tr>
<td>F</td>
<td>0.25</td>
<td>20.0%</td>
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<td>2.1%</td>
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<tr>
<td>Total</td>
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<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
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Cedar Test Method

- Test method confirmed by Technical Committee
- No longer “interim” designation
Default Thermal Emittance Values

- Technical Committee proposed assigning generic TE values for tile products
- Not approved by Board, under further discussion and investigation
Current Studies & Technical Issues
E1918 Precision & Bias

Laboratory testing (complete) | Analyze study data with ASTM | Develop P&B statement | Update E1918 standard
Directionally Reflective Products

- Developing a rating and labeling method for directional products
- Partnering with Hashem Akbari at Concordia University

![Graph showing rate of energy and absorptance over months with 30° tilt.](image-url)
Aggregate Reflectivity

• Researching testing and rating methods for aggregate and ballast products
• Collaboration with Lawrence Berkeley Lab and A-1 Grit Company
ASTM E408 Consideration

• Collaborated with device manufacturers to update E408
• Revision submitted to ASTM Committee for approval
• Technical Committee to reassess revised E408
Method Evaluation

- Evaluating Slide Method impacts via round robin study
- Investigating if retesting of CRRC products is required
- Will determine technical requirements of retesting if needed
CRRC-1 Test Method 1

Precision Statement

• Conducting precision study for CRRC-1 Test Method 1
• Will evaluate repeatability and reproducibility
• Study on hold until round robins completed
Test Method #1 Point Selection

- Investigating quasi-random point selection technique
- Goal is to have faster convergence of standard error
Upcoming Technical Committee Meetings

• August 8 – Conference call
  – 2 hours (10 a.m. – 12 p.m. Pacific)

• October 24 – In-person
  – San Francisco, CA
  – All day

• Contact jeff@coolroofs.org to attend
Questions