



# Technical Committee Update: 2010-2011

Membership Meeting  
June 9, 2011



# TC Committee Roster 2010-2011

- BOD voted to add AITL TC member line

	Voting Member	Company	Alternate	Company
1	Bill Kirn	National Coatings	Tim Kersey	Siplast
2	Ronnen Levinson	Lawrence Berkeley National Laboratory	Hashem Akbari	Lawrence Berkeley National Laboratory
3	Andre Desjarlais	Oak Ridge National Laboratory	Bill Miller	ORNL
4	Stan Graveline	Sika Sarnafil, Inc.	Mike Ennis	SPRI
5	Darrel Higgs	Owens Corning	Bill Morgan	Malarkey Roofing
6	Scott Kriner, Chair	MCA	Chuck Praeger	Metal Building Manufacturer Association
7	Richard Slomko	Atlas Material Testing Technology	Matthew Friday	Q-Lab Weather Research Service
8	David Roodvoets	DLR Consultants	Cindy Campbell	Momentum Technologies
9	Richard Allan Snyder	CertainTeed Corporation	Tim McQuillen	Firestone Building Products
10	Kurt Sosinski	Tremco, Inc.	Ingo Joedicke	ISP Minerals Inc
11	Greg Peterson	Eagle Roofing	Yoshi Suzuki	MCA Clay Tile
12	Jim Leonard	E.R. Systems	Marty Hastings	Dura Coat Products
13	Ted Best	Valspar	Greg Crawford	American Iron & Steel Institute
14	Neelam Patel	U.S. Environmental Protection Agency	Payam Bozorgchami	CEC
15	Wade Shepherd	MonierLifetile, Boral	Rick Olson	Tile Roofing Institute
16	Dave Yarbrough	R&D Services, Inc.	Tyler Westerling	Architectural Testing, Inc.



# Current Studies & Technical Issues



# Reflectometer Study

- Devices & Services manufacturing new version – V6 – of reflectometer
- Round 1 (last year) – determined V6 in V5 Emulation Mode an accurate replication of V5
- Round 2 (current) – comparing V6 to V5 Emulation Mode
- Results ready fall 2011





## CRRC-1 TM 1 for Rough Products

The TC and Board voted that all rough-surfaced products be tested with the 5 point reflectance test to determine if CRRC-1 TM 1 or ASTM C1549 should be used.



# Tile Product Updates

- September 2010: Approved Template Method
- December 2010: The Interim Tile Test Method deadline was extended to June 30, 2011 (from December 2010)
- June 2011: Tile Test Method accepted as fully approved CRRC method



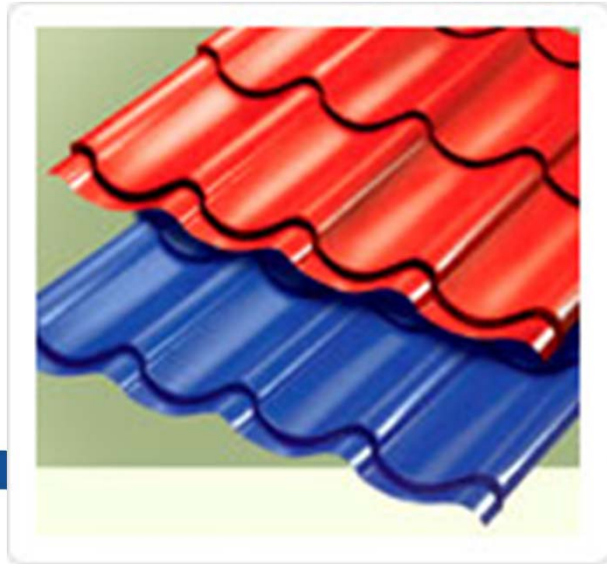
# High Profile/Tile Test Method

- 2010 Proposal for DOE funding to test E1918 robustness - declined
- Indoor lighting study March 2011 – unable to produce results comparable to natural light
- Next Steps:
  - Form task group to write statement of work for E1918 Precision & Bias Study
  - Form task group to investigate on computer modeling and E1918 adjustment approaches for addressing high profile products



# E1918 Decision for Profiled Metal Products

- With Board approval to remove “Interim” from the Tile TM, the Board also removed the requirement for profiled metal products to be tested with E1918







# Tile Blend Update

- Tile Blend Assemblies: two or more colors
  - Each color must be tested and rated as an individual product
  - Tile blend ratings will be determined by calculating a weighted average of the % of colors in the blend
  - No additional fees for rating blends





# Tile Blend Ratings Form (F-3B)

To rate a series of products under a tile blend assembly, submit Addendum F-3B with the Initial Product Application form



## INITIAL/AGED Product Rating Application Addendum for Tile Blend Ratings – F-3B

1610 Harrison Street • Oakland, CA 94612 • Toll-free (866) 465-2523 • Fax (510) 482-4421 • [www.coolroofs.org](http://www.coolroofs.org)

Submit one copy of this application for initial ratings, and one copy for aged ratings, per tile blend. A tile blend is a tile assembly that is installed using two or more colors.

**TYPE OF APPLICATION (check only ONE)**

Initial Product Rating Application  
 Aged Product Rating Application

1. Company Name	2. CRRC Licensed Seller/OM ID
3. Contact Name	4. Email Address
5. Company Address	
6. Phone	7. CRRC Product ID (for aged rating application only)
8. Product Identification Information (this will appear on the CRRC Rated Products Directory) Brand Name: _____ Model Name/Number: _____ Manufacturer Color Blend Name: _____ Company or Product Webpage (the Directory will contain a hyperlink from the brand name): http://_____	9. Product Color (color(s) that best describe your product): <input type="checkbox"/> Red <input type="checkbox"/> Bright White <input type="checkbox"/> Orange <input type="checkbox"/> Off-White <input type="checkbox"/> Yellow <input type="checkbox"/> Black <input type="checkbox"/> Green <input type="checkbox"/> Grey <input type="checkbox"/> Blue <input type="checkbox"/> Tan <input type="checkbox"/> Purple <input type="checkbox"/> Brown <input type="checkbox"/> Metallic <input type="checkbox"/> Multicolor
10. Product Application (choose one) <input type="checkbox"/> Low-Slope (2:12 inches or less) <input type="checkbox"/> Steep-Slope (greater than 2:12 inches) <input type="checkbox"/> Both	11. Manufacturer SKU #(s) 1. _____ 4. _____ 2. _____ 5. _____ 3. _____ 6. _____
12. Tile Blend Colors: Please fill in the following information for each color in the blend. If this application is for initial ratings, products will not yet have CRRC ID's.	



# TM for Aged Products

- On April 14, 2011, the BOD voted to ensure that the most current test method is used to test aged products
- Ex: Many aged tile products were initially tested with C1549; aged samples must now be tested with the Tile Test Method



## Slide Method



- C1371/emissometer not developed for products of high thermal resistance
- Charlie Moore from Devices & Services devised the Slide Method
- Transient Method – not applicable to all product types
- Slide Method – currently testing, results ready fall 2011



## Solar Working Group

- CRRC approached by solar manufacturers interested in the effects of combining solar systems with cool roofs
- Task group is preparing a study proposal regarding the interactions of cool roofs with solar systems to present at the September TC meeting





# Cedar Shake Test Method



- Developed a task group to develop test protocol for wood products
- Initial testing done on new and weathered handsplit cedar shakes at LBNL
- Task group is planning a long-term weathering study to determine time frame and effects of weathering natural cedar products



# Predictive Aging

- September 2010 TC meeting: Cool Metal Roofing Coalition presented a study on the feasibility of using a predictive formula for SR ratings of metal products
- TC & BOD voted to pursue investigation of predictive aging formulas for all product types
- May 2011 TC meeting: LBNL presented an analysis of the 2008 Title 24 predictive aging calculation, comparing actual aged measurements to the calculated values and suggesting formulas per product type.
- CRRC continues to analyze reflectance and emittance predictive formulas per product type.



# Electronic Thickness Measurement Devices

- Electronic devices are not listed in D751 or D1669 (standards for measuring thickness of single-ply and field-applied coating products)
- At the May 11, 2011 TC meeting, the TC approved a task group to complete a round robin study on electronic gauges currently being used by AITLs

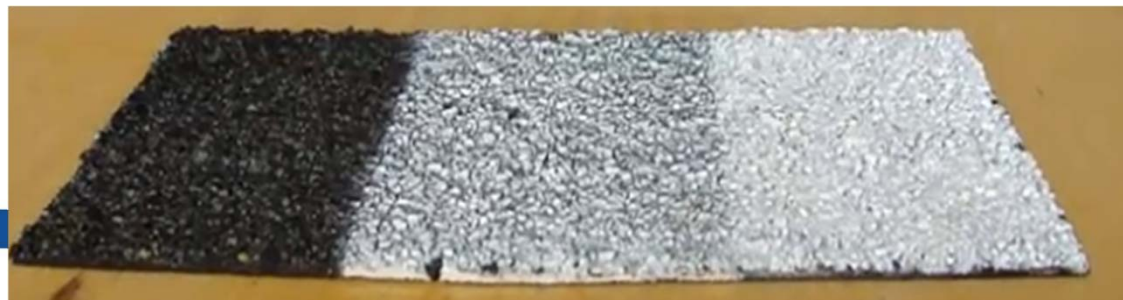
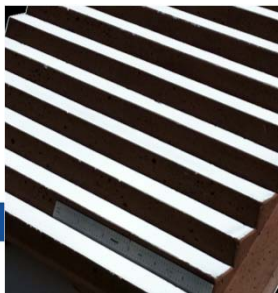






# Directionally Reflective Products

- Directionally reflective roofing products, which appear dark colored from street level and light colored from the angle of the sun
- The TC is forming a task group to develop a test protocol for these products.





## C1371 Clarification

- At the May 11, 2011 TC meeting, the TC voted to pursue adding clarifying language to the ASTM C1371 Standard regarding the timing of C1371 measurements
- Staff will work with the AITLs, LBNL, ORNL, and C1371 Chairman to add clarifying text to the Standard. In the meantime, Staff will draft a memo to AITLs with this clarification.





# E408 Consideration

- At the September 2010 TC meeting, the TC considered ASTM E408 using a new device
- At the May 2011 meeting, AZ Technology presented information about its Temp/Tesa 2000 device which measures normal thermal emittance and applies a conversion factor for hemispherical emittance.
- The Committee directed Staff to approach ASTM E408 about adding the Temp 2000 device and hemispherical emittance to the Standard.





## Upcoming TC Meetings

- August 3 – Conference call
- September 22 – San Francisco