

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

July 9, 2009

Dear ENERGY STAR[®] Roof Products Partner or Other Interested Party:

With this letter, EPA is announcing an amendment to the ENERGY STAR Version 2.0 specification for roof products that would allow products to qualify using the Cool Roof Rating Council (CRRC) Color Family Groups. No other substantive changes are included in the proposed amendment. This amendment will take effect on August 3rd, 2009. Stakeholders are welcome to submit comments during this period.

Currently, all ENERGY STAR qualified roof products are required to be individually tested and the test results must be reported to EPA along with the Version 2.0 ENERGY STAR Qualifying Product Information (QPI) form for each product.

Under this amendment, roof products partners may test and qualify products using color family groups in accordance with the CRRC Product Rating Program Manual CRRC-1¹. Partners must continue to adhere to the ENERGY STAR performance and labeling requirements outlined in the Eligibility Criteria section of the specification. Data on newly submitted roof products for ENERGY STAR qualification must reflect that tested samples were not cleaned prior to testing for Maintenance of Solar Reflectance. Partners are still allowed to self-test and report roof products for ENERGY STAR qualification. Partners are required to submit testing reports along with all QPI forms. QPI forms submitted without testing reports will not be accepted.

EPA will distribute the new Version 2.1 specification on August 3, 2009 at which time it will become effective immediately. Stakeholder comments should be sent to roofs@icfi.com **no later than July 27, 2009** to be considered in the final amendment.

A summary of the CRRC color family representative and additional elements definitions and requirements are provided below:

I. Definitions

- A. Factory-Applied Roof Product Component – A material or component made by a licensed Original Manufacturer (OM) which is applied to a substrate in a factory or coating facility (i.e. not in the field).
- B. Color Family Binder/Resin Technology: General class of factory-applied coatings used in metal roofing products which are defined by the family of related binder/resin chemicals used to formulate such coatings.
- C. Hunter “L,” “a,” “b” Color Values: A numeric measurement of a color’s lightness (L), redness/greenness (a) and yellowness/blueness (b).

¹ Cool Roof Rating Council, Product Rating Program Manual CRRC-1, January 8, 2009. The Manual may be found at <http://www.coolroofs.org/alldocs.html#crcc1>.

- D. Color Family: A CRRC pre-defined range of Hunter “L”, “a”, and “b” color values that establishes the color space for a CRRC predefined set of eighteen colors.
- E. Color Family Group: One or more production line roofing products that are factory coated metal roofing products that have the same binder/resin technology and that have color properties and solar reflectance and thermal emittance values that fall within the ranges established for the respective CRRC Color Family.
- F. Color Family Element: A uniquely formulated roofing product that is a member of a Color Family Group and that is either a factory-applied roof product component that serves as the top coating on a factory coated metal roofing product or a metal roofing product that has as its top coating a factory-applied roof product component.
- G. Color Family Representative Element: A Color Family Element that is used to initially establish a Color Family Group.
- H. Color Family Additional Element: A Color Family Element that is not the Color Family Representative Element.

II. Color Family Group Requirements

- A. In order to establish a Color Family Group, one product within each group must be designated as the Color Family Representative Element. The Color Family Representative Element is tested for initial solar reflectance and thermal emittance *and* aged solar reflectance. Additional products to be submitted into an already established Color Family Group are called Color Family Additional Elements. Color Family Additional Elements must also be tested for initial solar reflectance and thermal emittance, but aged testing is not required. All Color Family Elements must be tested for Hunter “L”, “a”, “b” values. Color families are defined in Table 1. *CRRC Color Families and Characteristics*.¹

NOTE: For Licensed Sellers (LS) using OM test data for components, materials and private-labeled roofing products, documentation (electronic or hardcopy) must be provided to verify that the applicant has authorization from the manufacturer to use the OM’s test reports. LS relying on an OM rating for a factory-applied metal coating that has been rated as a Color Family Element by the OM may not establish a Color Family Group with the authorized rating. Only a Standard Product application may be submitted when relying on OM Ratings for Color Family products. If LS wish to establish their own Color Family Group(s) they must follow all of the steps in the CRRC Product Rating Program Manual CRRC-1.

- B. For Color Family Representative Elements aged reflectance values are subsequently established for the Color Family Group as *either* the measured aged values of the Color Family Representative Element *or* the initial Color Family default values, whichever is lower.

III. Color Family Additional Elements Requirements

- A. Once a Color Family Group is established by rating a Color Family Representative Element, additional products of the same binder/resin technology that fall within the specified Hunter “L”, “a”, “b” color range can then be added to the Color Family Group as “Color Family Additional Elements” by following the steps below:
 1. Test each Additional Element’s initial solar reflectance and thermal emittance and report the tested values on the QPI form. The reported values shall be no higher than the average of the initial test results of the Color Family Representative Element.
 2. No aged testing is necessary for Color Family Additional Elements. The Color Family Additional Element will qualify using the aged solar reflectance value reported for the

¹ As found in Cool Roof Rating Council’s Product Rating Program Manual CRRC-1, 2009.

3. Complete and submit a QPI form and the test data for each Color Family Additional Element indicating whether the aged solar reflectance value was either the initial Color Family Group default value or the actual aged rated value of the Representative Element.
4. Upon acceptance and approval, the Color Family Additional Element will be added to the ENERGY STAR Roof Products Qualified Product List located at:
http://www.energystar.gov/index.cfm?c=roof_prods.pr_roof_products.

If you have any questions or concerns, please contact me at (202) 343-9123 or ryan.steven@epa.gov.

Thank you for your continued participation and support of ENERGY STAR.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve J. Ryan". The signature is fluid and cursive, with the first name "Steve" being the most prominent.

Steve Ryan, EPA
ENERGY STAR Product Manager