

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



OFFICE OF  
AIR AND RADIATION

DATE: December 20, 2002

TO: ENERGY STAR<sup>®</sup> Roof Partners and Other Interested Parties

FROM: Steve Ryan, ENERGY STAR Product Manager

RE: Proposed Amendment to the Test Criteria for ENERGY STAR Program Requirements for Roof Products: Eligibility Criteria (Version 1.1)

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This memorandum proposes an amendment to the testing criteria under the *ENERGY STAR Program Requirements for Roof Products: Eligibility Criteria* (Version 1.1). The purpose of this amendment is to specify solar reflectance testing criteria for qualifying roof products as weathered for three years or more on weathering farms. This proposal is a result of specific inquiries from partners and interested parties. ENERGY STAR has received initial data to support the proposed amendment and would like to obtain further feedback from partners.

Proposed Amendment: Addition to Section 4, Test Criteria, to be added at the end of the existing text titled "Maintenance of Solar Reflectance"

Partners may also determine the solar reflectance of the product after three years by exposing sheet panels outdoors in South Florida on commercial or private weathering farms. At least three panels with the identical formulation as those that were tested for initial solar reflectance must be exposed for three years in accordance with ASTM G-7. Each exposure panel must be at least 4" x 6" (or 6" x 8" depending on the diameter read by the measuring instrument) in size.

Two measurements of solar reflectance are to be taken from different areas on each panel and the Partner shall take the average of all solar reflectance values obtained from the panels to determine if the solar reflectance of the roof product as weathered for three years is greater than or equal to the stated threshold value (0.50 for products that can be applied on low-slope roofs, 0.50 for products that can be applied to either low-slope or steep-slope roofs, and 0.15 for products that can only be applied on steep-slope roofs).

For low-slope roof products and coatings and for product that can be applied to either low-slope or steep-slope roofs, Partner shall use test samples exposed at a slope of 1/4:12 inches and facing south. Partners shall use either ASTM E903 or the Solar Spectrum Reflectometer Test outlined in Devices & Services Company Solar Spectrum Reflectometer, Version 5.0 (ASTM C1549) on the weathered samples to test the solar reflectance of the roof product as weathered for three years.

For steep-slope roof products and coatings, Partner shall use test samples exposed at a slope of 6:12 inches and facing south. Partners shall use either ASTM E903 or the Solar Spectrum Reflectometer Test outlined in Devices & Services Company Solar Spectrum Reflectometer, Version 5.0 (ASTM C1549) on the weathered samples to test the solar reflectance of the roof product as weathered for three years.

All outdoor exposure test panels may be cleaned according to proper maintenance procedures as recommended by the manufacturer before tests are performed.

**All partners and interested parties are encouraged to submit comments and/or suggestions regarding this proposal by January 17, 2002.** Please send feedback to Steve Ryan, EPA Product Manager, by email at [Ryan.Steven@epamail.epa.gov](mailto:Ryan.Steven@epamail.epa.gov) <<mailto:Ryan.Steven@epamail.epa.gov>> or by phone at (202) 564-1254. Shortly thereafter, EPA will review comments and/or suggestions, follow up with partner discussions if necessary, and issue an official amendment. As always, thank you for your continued support of ENERGY STAR.