



Monday, July 01, 2013

Steve Ryan
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Re: Comments on ENERGY STAR Draft 3 Version 3.0 Program Requirements Product Specification for Roof Products

The Global Cool Cities Alliance (GCCA) appreciates the opportunity to comment on ENERGY STAR Version 3.0 Program Requirements Product Specification for Roof Products .

GCCA is a US-based non-profit organization that launched in June of 2011. Its mission is to advance policies and programs that increase the solar reflectance of our buildings and paved surfaces to promote cool buildings and cool cities, and to mitigate the effects of climate change through global cooling.

We have the following recommended revisions for future drafts of Version 3.0:

- 1) Test farms: We applaud your shift to requiring three locations for testing aged reflectivity values. (hot/dry, hot/humid, and cold/temperate).
- 2) Reflectivity requirements: Given that the ENERGY STAR rating is designed as a voluntary labeling program to identify and promote energy efficient products, we strongly encourage the Roof Products Program to specify reflectivity requirements that are in line with the leading building codes and voluntary incentive programs. We recommend reflectivity requirements as specified in the following table.

| | Minimum aged solar reflectance index (SRI) | Minimum aged solar reflectance (SR) | Minimum aged thermal emittance (TE) |
|--|--|-------------------------------------|-------------------------------------|
| Low-sloped roof (slope \leq 2:12) ^a | 75 | 0.63 | 0.75 |
| Steep roof (slope $>$ 2:12) ^b | 32 | 0.35 | 0.75 |

The proposed radiative property requirements in the table above are drawn from existing codes and standards as follows:

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- a) California's Title 24, 2013 Rulemaking (approved in May, 2012)
 - b) PG&E Energy-Efficient Cool Roof rebate program, Level 1
- 3) Thermal emittance: We encourage ENERGY STAR to add a thermal emittance requirement to Version 3.0 of its roof products specifications. Thermal emittance requirements ensure that products that may reflect light but do not shed heat well (e.g. uncoated metal) are not allowed under the standard. Products with high solar reflectivity but low thermal emittance will stay warm because they hold on to the heat that they absorb. Such roofs do not provide the desired characteristics intended by the product specification, which are to keep buildings cool and reduce their air-conditioning loads.

Thank you for the opportunity to comment on Version 3.0 and for considering our late recommendations. We very much appreciate ENERGY STAR's continued leadership on energy efficiency products.

Best regards,



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