



Guardian Industries Corp.  
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Auburn Hills, MI 48326

February 10, 2016

Doug Anderson  
US EPA - OAR/PPD  
ENERGY STAR Hotline (6202A)  
1200 Pennsylvania Ave NW  
Washington, DC 20460

Dear Mr. Anderson,

This letter is in response to the Energy Star framework document for exterior and interior storm panels. We support of your efforts to label storm panels for energy star and want to make you aware of two Guardian Residential ClimaGuard products that fit this application, summarized below:

Product Name	IGDB	Monolithic Tvis*	Monolithic Tsol*	Emissivity
ClimaGuard IS-20	3287 - 3293	87.6%	77.0%	0.198
ClimaGuard IS-30	3331 - 3337	91.0%	83.0%	0.302

\*Performance values listed for 3mm glass

We would like to submit the following comments:

- In “Definitions”, Page 4 Section 1c5, we recommend removing the low-e category descriptions and the footnote explaining that sputtered coatings cannot be applied to exposed surfaces. The products listed above are sputtered coatings and are intended for use on exposed surfaces. The designation of “pyrolytic” or “sputter” refers to the deposition technology and not the resulting characteristics or applications of a coating. We recommend you limit the definition to a low-e coating/glazing that is permissible by manufacturer in this application.
- While we understand the purpose of using emissivity to rate products, this is foremost a surface property and not totally indicative of thermal transfer properties of the whole window assembly. We feel this could cause confusion relative to other available products, in particular lower emissivity products that are not allowed in exposed configurations.
- We submit you consider the longevity of the program and if there might be a tiered approach to setting the proposed criteria that would help the adoption process. If coating

emissivity is used to rate storm panel performance, there is little room for incremental improvement of that criteria. Though we support having an ER rating on the storm window label, if timing does not permit development of test methods for air leakage, those requirements could be added to later revisions, enabling time for consumer recognition of the program while postponing change to manufacturing process, testing, and certification.

- For physical testing, modeling and ES label requirements of storm windows; our preference would be to specify a standard double hung window with typical geometry, materials of construction, U factor, SHGC and air leakage characteristics. Attaching the storm product and simulating or actually testing would then be possible and fair for rating the product and comparison of performance.
- We are not aware of any low SHGC exposed surface coatings currently available on the market without the use of films. With storm panels being deployed on a small subset of the total window base, product development for this application may be minimal, causing reduced product availability to meet low SHGC criteria.
- Though likely a rare occurrence, there may be a negative impact when adding low SHGC panels to low SHGC windows as dictated by southern state codes. A southern consumer may purchase energy star storm panels having a low SHGC with the best intentions, but end up with less than desirable visible light transmission of the total window.

Thank you for the opportunity to provide comments. We appreciate your effort in this area and please contact us with any questions or comments regarding this submission.

Regards,



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