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Mr. Doug Anderson
ENERGY STAR PROGRAM MANAGER
Environmental Protection Agency
Washington, DC 20460

Re: ENERGY STAR for Exterior and Interior Storm Panels

Dear Mr. Anderson,

Storm Windows have been around it seems forever and have fallen out of favor with homeowners because of the quality of new windows installed in new homes. Gone are the days when buying a new house usually required the eventual addition of exterior storm windows to increase energy efficiency and make home more comfortable. Plus, triple track units added the benefit of an operable exterior bug screen – all in one unit.

Many of the older window products have been since updated to dual pane energy efficient windows eliminating the obvious need for the old storm windows. This has also freed the homeowner of the maintenance required to keep storm windows working properly.

Storm window worked because, in the absence of dual pane prime windows, the space between the storm and the prime windows created the insulating air space. The addition of hard coat (pyrolytic) low e coatings added an additional benefit of control of radiant heat to the reduction of conducted and convected heat transfer.

In order to work properly, installed exterior storm panels must be allowed to weep; i.e., drain or dry moisture that collects (condensation) on the surfaces of the prime and storm windows within the insulating airspace between them. This is perhaps the most critical aspect of installation, because while proper sealant should be applied on the mounting surface to which the storm panel is attached, it cannot be applied completely along the sill, and especially not in the weep “holes” provided on most exterior storm window products. This is historically not adhered to by installers – professional and DIY’ers.

Though rare, the other consideration for installation would be the need for a thermal break between a metal (primarily aluminum) storm window and a metal prime window. This would only happen if the metal prime window were installed in a metal panning system to which the storm window was applied creating direct, conductive contact.

Considerable discussion has occurred regarding how the open weep holes might affect the overall thermal performance of the storm window prime window system. Only specific testing of a storm with blocked weeps versus open weeps would quantify the affect. These kinds of tests should be done.

Further, tests using slow expansion foam insulating tapes such as Hannoband, Tremco 600; Makroflex from Henkel/OSI and others would seal the window but allow it to breathe without wind and would allow weeping while maintaining thermal performance. These products should be included in the testing.

While AWDI has storm window and storm door installation protocols as part of their WIXSYS Online Installation program, developed to help manufacturers comply with EPA/Energy Star Version 6, AWDI would like to participate with storm window manufacturers in the above recommended testing process, which would then also become a step towards completing more comprehensive installation protocols to maximize the performance of exterior storm window products.

AWDI is not a fan of interior storm panels except in the case of outswing window products. It doesn't seem the performance levels are there, and little field-testing has been done.

AWDI is committed to help provide proper instructions that are easy to implement and easy to disseminate to help improve the reach and efficacy of storm products.

Regards,
AWDI, LLC.


John H. Jervis
Executive Directive

