



September 21st, 2012.

E.P.A.

ENERGY STAR[®] Program Manager

Royal Building Products appreciates the opportunity to provide comments and suggestions in regards to the new proposed revision of the ENERGY STAR[®] for Windows, Doors, and Skylights Program, Version 6.0.

We also would like to thank your organisation and staff for taking the time to inform and provide better understanding of the objectives and motivation of the new 2014 Proposed Qualification Criteria.

General Comments:

- We encourage the revision for new qualification criteria and more tightened performance levels for windows, doors and skylights. The % of certified NFRC products that qualify into the ENERGY STAR[®] program is very significant. We do believe that ENERGY STAR[®] products should pursue differentiation in the market by selecting efficiency levels reflective to the top 25% of product availability.

Comments on Qualification Criteria for 2014:

Structural requirements

- Proof of a product evaluation, not to be overwhelmed with a third-party certification process, under a recognized North-American structural standards should be part of the Energy Star requirements. Also proof of physical testing would assure that consumers are purchasing quality fenestration product for the specific location, height and type of building.
- We understand that this structural requirement will be part of the Most Efficient product program and hopefully will be included in the next revision of the Energy Star program.
- In Canada, the Energy Star program requires proof of structural testing as a mandatory criteria in order to qualify in the NRCAN program. No third-party certification is required.

Air Leakage requirement:

- We support the mandatory inclusion of the Air Leakage results on the CPD of fenestration product. NFRC allows non-NFRC 400 ratings to be published through the recognized Inspection Agency.
- We are mainly a supporter of an Air Leakage requirement, whether it is a pass or fail only (that will prevent the rounding issue created by NFRC400 versus ASTM E283) or specific data. We will disagree with any additional procedure or new labelling to promote and publish the Air Leakage ratings.

Impact-Resistant Products:

- We support the analysis and statement in the Version 6.0 as keeping the same qualification criteria for IMPACT product as NON-IMPACT product.

Installation Instructions:

- Installation procedures and guidance has no effect on the energy performance of a thermally evaluated fenestration product, its main reason would be to protect the integrity of the Energy Star brand.
- A simple requirement that installation instructions should be provided with product, procedure verify and confirm by the Inspection Agency that are visiting each Energy Star partner every year.
- Also, we believe that the Energy Star program should promote directly to the customer the use of a certified installer through those certification program:
 - o Installation Masters (AAMA)
 - o WindowWise
 - o FenestrationInstallationTechnicien (FIT-CSA Group)
- In the section “removing old product” there is no specification about the disposal of the product, would there be place for recycling criteria.
- In the section “Guidance on sealing...” the mention about preventing water leakage might be contradictory to the fact that the Version 6.0 does not require any structural proof or certification of a fenestration product.
- Maybe the installation instruction should be included in the Most Efficient Product to start with and plan to be required in the next energy Star revision process.

Proposed Revision to Product Criteria: *Windows*

- Even if the analysis shows that energy savings comes more from the U value than the SHGC, we believe that new U-Factor maximum for the Northern zone will eliminate very performing double glazed products from the market; even if you promote a higher level of SHGC in colder climate, the maximum U-Factor will not allow manufacturers to use those types of Low-E on surface #3 of a double glazed unit because of the less or lower 0,27BTU.
- Data analysis shows that when using a High SHGC (Surface #3), only triple pane IGU could meet Northern criteria when a double glazed with Low SHGC (Surface #2) could meet all zones.
- Those criteria would drive the Energy Star partner to only offer a Low SHGC product on Surface #2 and forsake High SHGC product except in rare case.
 - o Again, Product will qualify for Miami as well as for Minneapolis even if there is a potential for an Energy Star qualified window to be in violation of code in the Northern zone.

Condensation Resistance: *Additional Qualification Criteria*

- The Condensation resistance factor should be brought on the table as different types of Low-E coating products, located on surface #4 on a double glazed IGU, are emerging on the market.
 - o The direct effect of this application brings down the U-Factor results by cooling down the temperature surface of the inside pane.
 - o Therefore, it brings down the CR factor (based on NFRC 500) below 50 and could create serious damage, discomfort and some misunderstanding of the thermal properties of a certified product for the consumers.
 - Ref: High Performance Window Volume Purchase Program.
- We propose that a minimum CR factor should be considered for this new proposal, base on the same premises as the VT data. Or maybe an explanation on potential risk of condensation when using low-e on surface #4 in northern climate zone.

Others:

- We support all different aspect mention for the Energy Star Version 7.0 possible consideration.

Royal Building Products is involved in most major North American window industry organisations and we are looking forward to partnering with the E.P.A. by providing expertise and input in the improvement and availability of energy efficient products.

Sincerely,

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