

August 1, 2022

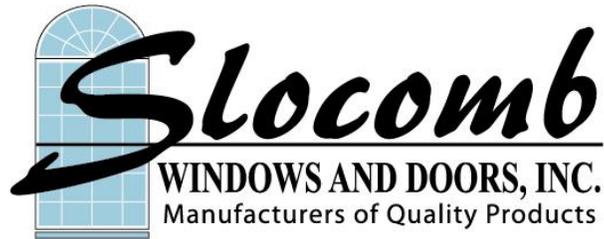
To: Energy Star:

Re: Version 7 Comments

In past updates to the Energy Star program, we have observed that policy makers have tempered the objective of increasing performance requirements, by taking into consideration the technology and supply that are available to the industry. Our comments to Version 7 address both technology and supply concerns that have just arisen, both for our company in particular, and for the industry in general.

1. Slocomb Windows and Doors manufactures roughly 150,000 vinyl windows and patio doors annually. We make all of our annealed dual insulating glass in house using Duralite, and purchase on the outside IGs for tempered, laminated, triple glass, and the occasional very large units that our equipment is not designed to handle. We are not comfortable making triple glass using Duralite due to poor experience and concerns regarding seal integrity- specifically the two seals at the inner lite of glass. Earlier this year we redid our simulations and validation testing, and did so using the Duralite modeling that was in place at the time, successfully qualifying our entire product line to meet Energy Star Version 7 in all climate zones. Several weeks ago we learned that the Duralite thermal modeling which we just used is being changed in a fashion that will increase the U-Factor, and that NFRC is giving us 1 year to either re-simulate our products, or accept an increase in U-Factor of 0.01 to all Duralite simulations.
2. We were an early adopter of dual glass surface 4 Low E in conjunction with soft coat surface 2 Low E, and we configured our product strategy around dual glazed products that met a U-Factor of .22 to such an extent that 30% of our sales are made with Low E on both surface 2 and 4. Despite the lower CR numbers that the simulation model yields for surface 4 Low E, with nearly 10 years of product in the field we have not experienced any homeowner concerns, nor have we had difficulty with validation testing. It is now clear that under this new Duralite regimen the U-Factor of all our vertical and horizontal sliding windows with LowE surfaces 2 & 4 will move from 0.22 to 0.23, and will no longer qualify for Version 7 in the northern zone.
3. Our business model is heavily skewed towards the promoting home improvement dealer- some 80% of our volume comes from that channel. The remaining 20% is a mix of project work (both new and replacement), lumber yards who service residential new construction, and distribution serving the small home improvement contractor. In our experience, the project and new construction channels are influenced more by the actual NFRC performance numbers than they are with Energy Star- builders and developers have the expertise to incorporate window performance in their building envelope thermal evaluation. Also, in our experience, small contractors tend to be more interested in price and delivery than with Energy Star. However, the promoting home improvement dealer, far and away our largest channel, requires that the products they sell carry the Energy Star label, and promotes compliance with Energy Star. We and numerous other window fabricators are financially and operationally committed to a product strategy around Duralite that, through no fault of our own, is no longer a viable solution for the Northern Zone. This adverse change in Duralite modeling, combined with the current Version 7 requirements, puts our largest sales channel at risk.

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4. Outsourcing occasional triple glass units has worked well for us because we have been able to produce dual glass products that meet a .22 U-Factor; outsourcing triple glass in order to meet Energy Star Version 7 is an entirely different matter. It is our judgement that triple IGs using thin stainless Intercept and 2.2mm glass with LowE surfaces 2&5, are comparable in cost to dual IGs using Duralite and 3mm dual glass with LowE surfaces 2&4 (the Cardinal pyrolytic LowE is available only in 3mm). While we do not have a meaningful cost advantage over producers of triple glass, from a capital equipment and operational perspective we and others are totally committed to Duralite, and now the path that we have chosen to meet Version 7 is suddenly no longer open to us. Outsourcing triple glass puts us in an uncompetitive position, and producing triple glass with higher seal durability in house requires a major capital investment in new IG technology. We will explore our alternatives to produce triple glass in house, but it is doubtful that we will be able to accomplish a change in IG production in time for the implementation of Energy Star Version 7 performance standards. Such a project will take roughly 2 years to accomplish, given the lead times on equipment, and the need to submit specimens for IG testing and certification.
5. The U.S. flat glass industry, now with only three participants, is in turmoil, with prices escalating, and supply that is not sufficient to meet demand. The glass suppliers, whose normal model is to manufacture to inventory, have so depleted their inventory that they are now running their production to fill orders. There have been open discussions of allocation, and glass suppliers are refusing potential new customers. It is in this extremely tight supply environment that Energy Star intends to roll out Version 7, which given the change in Duralite modeling and absent some new technology, will for the Northern Zone likely require triple glass for nearly all horizontal and vertical sliding products to meet. We are not aware of any announced capital investments for new flat glass production capacity, so we expect flat glass supply to remain very tight for some time.

To summarize, until recently there have been two paths to a 0.22 U-Factor in vertical and horizontal sliding windows- triple glass with LowE surface 2&5, and Duralite with LowE surface 2&4. Manufacturers have chosen their path in large part depending on their capital commitment to a particular IG sealing technology. With the recent adverse change in Duralite modeling, that leaves those who chose the Duralite/dual glass option without a viable path to competitively produce products compliant with Version 7. While Slocomb Windows is but one of many fabricators so affected, either NFRC or the various IAs can better speak to the actual number of companies impacted by the Duralite modeling update. Further, there is limited glass capacity to support a move by the industry to produce additional triple glass. Because of these unique and very recent developments, we suggest that Energy Star modify the Version 7 U-Factor for the Northern Zone to 0.23. This proposal is a consequential improvement from the current 0.27, it permits firms who have previously committed to the dual glazed/warm edge spacer path to comply, and it leaves the glass supply constraints at the status quo.

Respectfully
Carl Slocomb

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