

Vitro Architectural Glass
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March 28, 2022

Mr. Douglas W. Anderson
Product Manager for Windows, Doors, and Skylights
ENERGY STAR® Labeled Products

Via eMail

Subject: Vitro Architectural Glass public comments on the U.S. ENERGY STAR 7.0 Draft 2 specification for windows, doors, and skylights.

Dear Mr. Anderson,

I am writing to inform you that Vitro Architectural Glass fully supports the Draft 2 Version 7.0 ENERGY STAR product specification for Windows, Doors, and Skylights as provided by the U.S. EPA. Vitro has long supported the development of energy conservation programs promoting the use of energy efficient glass and window products and appreciates the EPA's efforts to shape the requirements for this important ENERGY STAR product category.

Vitro fully supports the proposed changes to U-value and SHGC requirements and appreciates that the new specification is in line with current US administration policies, and existing practices in other developed areas of the world such as Canada, and Europe. As a float and coated glass manufacturer that supplies significant components to finished windows, doors, and skylights, we at Vitro confirm the changes are fair and equitable to the industry. The changes will spur innovation and at the same time will maintain healthy marketplace competition.

Vitro is prepared to supply our customers with products that will help window, door and skylight manufacturers meet their end customer and consumer needs. Table 1 below is an example of specific Vitro products our window manufacturer customers may utilize to meet the Draft 1 Version 7.0 ENERGY STAR product specification.

Table 1: Partial Listing of Potential Vitro Products that May be Utilized by Window Manufacturers to Qualify for Draft 1 Version 7.0 ENERGY STAR product specification*.			
Zone	Vitro Product	U-Center of Glass (Btu/h ft ² · °F)	SHGC-Center of Glass
Northern	Hybrid Vacuum IG: 3mm Solarban 60(2) Clear Glass + 0.5"Argon gas +4mm VacuMax™ LowE(4) Clear Glass + 0.3mm VacUmax™ VIG + 4mm Clear Glass	0.06	0.29
Northern	Triple IG: 3mm Solarban® 60(2) Clear Glass + 0.5" Argon gas + 3mm Clear Glass + 0.5" Argon gas + 3mm Clear Glass	0.18	0.36
North - Central	Double IG: 3mm Solarban® 60(2) Clear Glass + 0.5" Argon gas + 3mm Solarcoat® (4) Clear Glass	0.20	0.38
North - Central	Triple IG: 3mm Solarban® 60(2) Clear Glass + 0.5" Argon gas + 3mm Clear Glass + 0.5" Argon gas + 3mm Clear Glass	0.18	0.36
South Central	Double IG: 3mm Solarban® 90(2) Clear Glass + 0.5" Argon gas + 3mm Clear Glass	0.24	0.23
Southern	Double: 3mm Solarban® 90(2) Clear Glass + 0.5" Argon gas +3mm Clear Glass	0.24	0.23

*Data provided is for center of glass performance and is not a guarantee of whole window performance. Energy Star qualification is based on whole fenestration product performance. Data provided is not NFRC certified.

A concern would be created if the northern zone u-value is relaxed from the proposed 0.22 to anything less stringent as this could create “work-around” solutions for the use of a few dual glazed products in the northern zone which in-turn causes marketplace exclusions to manufacturers and suppliers. To avoid these problems Vitro recommends that the northern u-value be held at the proposed 0.22 or be lower. The range of 0.23 through 0.26 needs to be avoided.

Vitro Architectural Glass manufactures a range of industry-leading, energy-efficient products such as *Solarban*®, *Sungate*® and *Starphire Ultra-Clear*® glasses at U.S. plants in Carlisle, Pennsylvania; Fresno, California; Salem, Oregon; and Wichita Falls, Texas. Committed to sustainable manufacturing processes and products, the company also operates one of the

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world's largest glass research and development facilities in Pittsburgh and four residential glass fabrication plants in Canada.

Vitro Architectural Glass distributes high performance, fully tempered R14 VacuMax™ vacuum insulating glass units currently manufactured in Asia with plans to domesticate production in 2023.

Furthermore, Vitro Architectural Glass is partnered with GED Integrated Solutions to license our Intercept® Insulating Glass unit spacer and manufacturing technology including the ATLAS® Glass Fabrication system that produces conventional triple pane IGUs in 20 second cycle times.

Upholding the values of “Together, We See Further” across the architectural, automotive and containers markets, Vitro strives to realize the power of partnership to ensure that projects meet or exceed ever-evolving sustainability expectations as well as glass requirements. For more information, please visit www.VitroGlassHub.com.

Thank you for the opportunity to provide input to the proposed improvements to the ENERGY STAR for Windows, Doors, and Skylights Program. Please let me know if there are any questions or if I can provide any additional information.

Best regards,

A handwritten signature in black ink that reads 'William M. Davis'. The signature is fluid and cursive, with a prominent 'W' and 'D'.

William Davis
Sr. Engineer, Technical Services

Cc: Paul Bush