

# Enhanced VRE      Enhanced VE

## ENHANCED SOLAR PERFORMANCE OF MANY OF VIRACON'S MOST POPULAR COATINGS

### IMPROVED SOLAR HEAT GAIN COEFFICIENT TO ACHIEVE IMPRESSIVE PERFORMANCE WHILE MAINTAINING GREAT AESTHETICS

Viracon is pleased to announce the introduction of Enhanced VRE (VZRE) and Enhanced VE (VZE), our newest high-performance solar control architectural glass coatings.

VRE-65, VRE-59, VRE-54, VRE-46, VRE-38, VE-48 and VE-42 are now available in enhanced versions:  
**VZRE-65, VZRE-59, VZRE-54, VZRE-46, VZRE-38, VZE-48 and VZE-42**

By integrating innovative coatings development and manufacturing processes Viracon has enhanced the performance of some of the best selling coatings in our high-performance coating lineup.

Enhanced VRE and Enhanced VE improve the Solar Heat Gain Coefficient (SHGC) 13% to 22% in a 1" dual pane insulating unit on clear glass over standard VRE and VE coatings while still maintaining the same great aesthetic that appears on over 2,000 buildings around the world.

#### ENHANCED-VRE AND ENHANCED-VE KEY BENEFITS:

- + Outstanding performance and aesthetics – Greatly improved SHGC without sacrificing aesthetics
- + Superior design – Balanced VLT and SHGC attributes that improve occupant comfort and reduce energy costs
- + Greater design options – Combine Enhanced VRE and Enhanced VE with Viracon's broad selection of fabrication options to further optimize performance and aesthetics



- The reflected colors of the images above are viewed from the exterior and are provided as a reference for the visual aesthetics of Viracon Enhanced VRE and Enhanced VE. Sky conditions, viewing angle and other factors can influence perceived color. Viracon recommends viewing actual glass samples prior to final product selection. Visit [viracon.com](http://viracon.com) for more information.

## SOLAR OPTICAL PROPERTIES AND THERMAL CHARACTERISTICS (AIR)

(1" 0A) - 1/4"(6mm) Clear - 1/2"(13.2mm) Airspace - 1/4"(6mm) Clear

Nomenclature	Transmittance			Reflectance			U-Value		Shading Coefficient	Relative Heat Gain	SHGC	LSG
	Visible	Solar	UV	Vis-Out	Vis-in	Solar	Winter	Summer				
VZRE1-65	52%	22%	5%	25%	14%	37%	.29	.25	.36	77	.32	1.63
VZRE1-59	47%	20%	5%	29%	14%	40%	.29	.25	.33	70	.29	1.62
VZRE1-54	42%	18%	5%	31%	11%	39%	.29	.25	.30	64	.26	1.62
VZRE1-46	38%	16%	5%	33%	11%	41%	.29	.25	.28	60	.24	1.58
VZRE1-38	32%	14%	4%	43%	16%	47%	.29	.25	.23	50	.20	1.60
VZE1-48	42%	19%	6%	16%	7%	25%	.29	.25	.33	70	.29	1.45
VZE1-42	33%	15%	5%	18%	10%	23%	.29	.26	.28	60	.25	1.32



Enhanced VRE  
VZRE1-65



Enhanced VRE  
VZRE1-46

The solar and optical data presented is center-of-glass data based on the National Fenestration Rating Council measurement standards. They were calculated using Lawrence Berkeley National Laboratory's (LBNL) WINDOW 7 software. The values shown are nominal. They may vary due to manufacturing tolerances.

1. The performance data above applies to insulating glass with two plies of clear 1/4" (6mm) glass and a 1/2" (13.2mm) airspace.
2. If Enhanced VRE or Enhanced VE is applied to the glass must be heat treated.
3. Available in maximum dimensions of up to 130" x 236" (3302mm x 5994mm). Note: The maximum size for annealed glass under any condition is 50 sq ft (4.65 sq m).

VZRE Codes: Example = VZRE1-65

VZE Codes: Example = VZE1-48

'Outboard Glass Substrate Color Codes = 1-Clear

Performance of Enhanced VRE and Enhanced VE on additional glass substrates and with argon fill can be viewed on [viracon.com](http://viracon.com)

Complete flexibility - specify Enhanced VRE (VZRE) and Enhanced VE (VZE) on any of your preferred glass substrates.

Greater design options - combine Enhanced VRE or Enhanced VE on the same surface as silk-screen patterns or DigitalDistinctions™.

Superior aesthetics - the coating is applied after heat treating, augmenting flatness compared to architectural glass that is heat treated after the coating application.



Architectural Glass Solutions for Your Next Landmark Project Start By Visiting [viracon.com](http://viracon.com) or By Calling 800.533.2080.

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