



# VRE-65

## INTRODUCING THE NEWEST ADDITION TO VIRA CON'S VRE FAMILY OF HIGH-PERFORMANCE COATINGS - VRE-65

With the need to balance aesthetics, natural light and solar heat gain, designers are increasingly challenged to find coatings to meet all three criteria. Viracon now offers an additional solution in its lineup of high-performance coatings. Introducing Viracon VRE-65, our newest high-performance coated glass.

Viracon VRE-65 provides form and function with solar performance similar to Viracon VE-2M along with the crisp, neutral appearance of Viracon's other VRE coatings. Its high light transmission (59%) also allows two-way vision under varying light conditions and aids in controlling glare while providing aesthetic appeal. With Light to Solar Gain (LSG) ratios from 1.25 to 1.80 Viracon VRE-65 balances natural daylight with energy performance.

VRE-65 joins VRE-38, VRE-46, VRE-54 and VRE-59 to further extend the wide range of insulating glass options offered by Viracon.



### VRE-65 KEY BENEFITS:

- + Superior aesthetics - Crisp, neutral appearance with a light transmittance of 59% on clear glass
- + Complete flexibility - Specify VRE-65 on any of Viracon's standard glass substrates
- + Greater design options - Combine VRE-65 on the same surface as DigitalDistinctions™ or silk-screen patterns



VRE1-65  
SHGC 0.37  
VLT 59%

VRE24-65  
SHGC 0.40  
VLT 62%

VRE2-65  
SHGC 0.28  
VLT 49%

VRE19-65  
SHGC 0.30  
VLT 43%

VRE29-65  
SHGC 0.29  
VLT 41%

► The reflected colors of the images above are viewed from the exterior and are provided as a reference for the visual aesthetics of Viracon VRE-65. 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" OA) - 1/4"(6mm) VRE-65 on designated substrate - 1/2 (13.2mm) Airspace - 1/4" (6mm) Clear (or Low-Iron)

Product	Transmittance			Reflectance			U-Value					
	Visible	Solar	U-V	Exterior	Interior	Solar	Winter	Summer	Shading Coefficient	Relative Heat Gain	SHGC	LSG
VRE 1-65	59%	31%	16%	27%	20%	34%	.30	.27	.43	89	.37	1.59
VRE 2-65	49%	21%	8%	20%	19%	14%	.30	.27	.32	69	.28	1.75
VRE 3-65	30%	17%	7%	10%	19%	14%	.30	.27	.28	60	.24	1.25
VRE 6-65	50%	23%	10%	21%	19%	16%	.30	.27	.34	72	.30	1.67
VRE 19-65	43%	23%	10%	16%	19%	19%	.30	.27	.34	72	.30	1.43
VRE 24-65	62%	38%	24%	28%	21%	46%	.30	.27	.46	96	.40	1.55
VRE 26-65	37%	20%	9%	14%	19%	15%	.30	.27	.31	66	.27	1.37
VRE 29-65	41%	22%	11%	15%	19%	20%	.30	.27	.34	71	.29	1.41

## SOLAR OPTICAL PROPERTIES AND THERMAL CHARACTERISTICS (ARGON)

(1" OA) - 1/4"(6mm) VRE-65 on designated substrate - 1/2 (13.2mm) Airspace with Argon - 1/4" (6mm) Clear (or Low-Iron)

Product	Transmittance			Reflectance			U-Value					
	Visible	Solar	U-V	Exterior	Interior	Solar	Winter	Summer	Shading Coefficient	Relative Heat Gain	SHGC	LSG
VRE 1-65	59%	31%	16%	27%	20%	34%	.25	.22	.42	88	.37	1.59
VRE 2-65	49%	21%	8%	20%	19%	14%	.25	.22	.31	66	.27	1.81
VRE 3-65	30%	17%	7%	10%	19%	14%	.25	.22	.27	57	.23	1.30
VRE 6-65	50%	23%	10%	21%	19%	16%	.25	.22	.33	69	.29	1.72
VRE 19-65	43%	23%	10%	16%	19%	19%	.25	.22	.33	69	.29	1.48
VRE 24-65	62%	38%	24%	28%	21%	46%	.25	.22	.46	95	.40	1.55
VRE 26-65	37%	20%	9%	14%	19%	15%	.25	.22	.30	63	.26	1.42
VRE 29-65	41%	22%	11%	15%	19%	20%	.25	.22	.33	69	.28	1.46

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 5.2/6.3 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 (clear inboard) of 1/4" (6mm) glass and a 1/2" (13.2mm) airspace. Viracon VRE-65 is applied to the second (#2) surface. If Optiwhite™ (#24) glass is used, both plies of the unit are the Optiwhite substrate.
2. If VRE-65 is applied to tinted glass, the glass must be heat treated.
3. If VRE-65 is applied to clear glass, contact Viracon's Technical Services Department to determine the possibility of using annealed glass.
4. Available in maximum dimensions of 96" (2438mm) or 165" (4191mm). Note: The maximum size for annealed glass under any condition is 50 sq ft (4.65 sq m). Maximum size for heat treated glass under any condition is 70 sq ft (6.04 sq m).

VRE Codes: Example = VRE1-65

1-Outboard Glass Substrate Color Codes = 1-Clear, 2-Green, 3-Gray, 6-Blue-Green, 19-CrystalGray™, 24-Optiwhite™, 26-Solarblue™, 29-Graphite Blue™.

Performance of VRE on additional glass substrates can be viewed on [viracon.com](http://viracon.com)

Complete flexibility - specify VRE-65 on any of your preferred glass substrates.

Greater design options - combine VRE-65 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.

CrystalGray is a trademark of Guardian Industries.  
Optiwhite and Graphite Blue are trademarks of Pilkington.  
Solarblue is a trademark of PPG Industries, Inc.



Architectural Glass Solutions for Your Next Landmark Project Start By Visiting [viracon.com](http://viracon.com) or By Calling 800.533.2080.  
© 2014 VIRACON ALL RIGHTS RESERVED VMB-058 VRJC0314 ISO0316

