

RoomSide® Low-E

Enhancing U-Value Performance of Insulating Glass

With increasing energy-saving and green building initiatives throughout North America, energy codes continue to become increasingly stringent, and building owners look for less costly and more environmentally sustainable solutions.

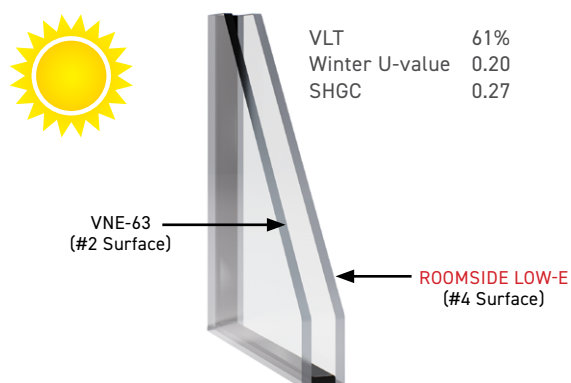
Viracon RoomSide Low-E is an interior-facing surface coating designed to improve the U-value of a dual-pane insulating glass unit by as much as 20%. RoomSide works by reflecting indoor heat back into the room, improving thermal efficiency. RoomSide is available in combination with a large selection of Viracon's high-performance, low-e coatings, in insulating, laminated insulating, and insulating laminated glass configurations. RoomSide offers comparable U-value performance to a triple insulating unit, while saving cost and reducing glazing system complexity, weight, and footprint.

RoomSide® Low-E Benefits

- Improves U-value by 20% – decreasing energy costs
- Increases overall system economic value – optimizing performance to cost/ft² ratio
- Helps meet stringent energy codes – assuring sustainable and green building design criteria
- Now available in even larger sizes

RoomSide Low-E vs. Triple Insulating Unit

RoomSide offers comparable U-value performance to a triple insulating unit, while saving cost and reducing glazing system complexity, weight, and footprint.



1" VNE-63 Insulating with RoomSide Low-E

1/4" Clear VNE-63 #2 / 1/2" airspace (Argon) / 1/4" Clear with RoomSide #4



1 1/2" VNE-63 Triple Insulating

1/4" Clear VNE-63 #2 / 1/2" airspace (Argon) / 1/4" Clear /
1/2" airspace (Argon) / 1/4" Clear

Specifications:

- Maximum size is 99" x 165" and IGU surface area ≤ 100 ft² *both criteria must be fulfilled.*
- The inboard RoomSide Low-E lite is on 1/4" Clear substrate which can be monolithic (HS or FT with RoomSide on #4 surface, Heat Soak recommended if FT) or laminated (RoomSide on #6 surface).

Not available with: Spandrel; Coatings on the #3 surface (or odd surface); or the VZRE coating family.

RoomSide® Low-E

Performance Data¹ (in combination with Viracon's proprietary coatings on #2 surface)

Outboard	Comparison Make-ups	Transmittance			Reflectance			Energy Performance	
Coating (#2)	RoomSide/No RoomSide/Triple	Visible	Solar	UV	Visible-Out	Visible-In	Solar	U-Value (winter)	SHGC
VNE1-63	with RoomSide #4*	61%	24%	5%	11%	12%	37%	0.20	0.27
	Comparison: No RoomSide**	62%	24%	5%	10%	10%	37%	0.25	0.28
	Comparison: Triple***	55%	21%	4%	13%	16%	38%	0.18	0.26
VE1-2M	with RoomSide #4	69%	32%	10%	12%	13%	31%	0.21	0.36
	Comparison -- No RoomSide	70%	33%	10%	11%	12%	31%	0.25	0.37
	Comparison -- Triple	63%	28%	8%	15%	17%	32%	0.19	0.34
VNE1-53	with RoomSide #4	48%	18%	2%	19%	22%	36%	0.20	0.22
	Comparison -- No RoomSide	49%	18%	2%	19%	21%	36%	0.24	0.22
	Comparison -- Triple	44%	16%	2%	21%	25%	37%	0.18	0.20
VNG1-4022	with RoomSide #4	39%	16%	6%	20%	17%	32%	0.20	0.20
	Comparison -- No RoomSide	40%	17%	6%	19%	16%	32%	0.24	0.21
	Comparison -- Triple	36%	15%	5%	21%	21%	32%	0.18	0.19
VRE1-4725	with RoomSide #4	46%	20%	8%	26%	21%	37%	0.20	0.24
	Comparison -- No RoomSide	47%	20%	8%	25%	20%	37%	0.25	0.25
	Comparison -- Triple	43%	18%	6%	27%	24%	37%	0.18	0.23
VRE1-46	with RoomSide #4	42%	23%	15%	35%	16%	40%	0.21	0.27
	Comparison -- No RoomSide	43%	23%	16%	34%	15%	40%	0.25	0.28
	Comparison -- Triple	38%	20%	12%	36%	20%	40%	0.19	0.26
VRE1-3117	with RoomSide #4	30%	12%	5%	28%	21%	39%	0.20	0.15
	Comparison -- No RoomSide	31%	12%	5%	28%	20%	38%	0.24	0.16
	Comparison -- Triple	28%	11%	4%	29%	24%	39%	0.18	0.15
VUE1-50	with RoomSide #4	47%	20%	5%	11%	12%	26%	0.20	0.24
	Comparison -- No RoomSide	48%	20%	5%	11%	11%	26%	0.25	0.25
	Comparison -- Triple	43%	17%	4%	13%	17%	27%	0.18	0.22
(none)	RoomSide #4 (RoomSide only IGU)	77%	57%	45%	15%	15%	13%	0.34	0.66

* 1" OA IGU - 1/4" Clear with Coating #2 / 1/2" airspace with Argon fill / 1/4" Clear with RoomSide #4

** 1" OA IGU - 1/4" Clear with Coating #2 / 1/2" airspace with Argon fill / 1/4" Clear

*** Triple IG - 1/4" Clear with Coating #2 / 1/2" airspace with Argon fill / 1/4" Clear / 1/2" airspace with Argon fill / 1/4" Clear

¹ Solar and optical performance data represent Center-of-Glass information based on the National Fenestration Rating Council measurement standards and are calculated using Lawrence Berkeley National Laboratory's WINDOW 7 software. Values are nominal—values in as-delivered product may vary according to manufacturing quality tolerances.

Application Note: The RoomSide coating reflects radiant heat back into the room, which also lowers the interior glass surface temperature and creates potential for condensation to occur in high humidity environments. Further evaluation is recommended for applications in cold climates with high humidity levels (i.e. greater than 30% relative humidity RH in winter), condensation resistance (CR) should be evaluated as a whole system design. Examples include hospitals, nursing homes, senior housing, laboratories, swimming pools, and museums.



For more information on Viracon RoomSide® Low-E
visit our website: viracon.com

