Vitro Architectural Glass

Reflective Glass

Lumax®

Product Description

LUMAX® 51 & 68 harmonizes with current architectural trends by offering high levels of visible light transmittance, featuring a neutral, light-gray appearance that reduces glare.

Classic reflective glasses, although effective in blocking heat ingress, are typically dark and with high exterior reflectance values. This translates into low daylight allowance into homes and buildings, affecting the sense of connection from occupants with the outdoors, as well as their quality views of the exterior. Ultimately, this also impacts consumption of artificial lighting through increased electricity spend. Lumax® addresses these various issues thanks to its optical and aesthetic characteristics.

Performance

LUMAX® 51 & 68 delivers the right amount of natural illumination for our buildings' needs, reducing **indoor heat by up to 45%** compared to regular Clear glass, permitting as well the entry of 6 times more daylight than other traditional reflective glass.

LUMAX® presents a high-performance MSVD coating, applied on the second surface, that allows a monolithic installation. However, Vitro recommends opting for a double-glass insulated unit to improve thermal insulation performance of the system, along with the typical added benefits such as acoustic control and added durability. This translates into lower HVAC and electricity costs, generating not only comfort but economical savings to the user.

LUMAX®



Fabrication and Availability

LUMAX® provides maximum processing flexibility and can be laminated, tempered or heat-strengthened to satisfy increasing strength or safety glazing requirements. It is available over a Clear glass substrate on 6 mm thickness, in two different sheet sizes: 1.80 x 2.50 and 2.50 x 3.60 meters.

Product Data Sheet[1] Lumax®

Monolithic								
Thickness		VLT[2]	Visible Light Reflectance[2]		(BTU/HR°ft[20°] F) NFRC U-Value		SHGC[4]	LSG[5]
pulg	mm		Exterior	Interior	Winter Nighttime	Winter Argon		
Coated								
LUMAX 51 (2) CLEAR GLASS								
1/4	6	50%	17%	9%	0.96	N/A	0.55	0.92
LUMAX 68 (2) CLEAR GLASS								
1/4	6	66%	18%	14%	1.01	N/A	0.68	0.98

Insulating Vision Unit Performance Comparisons 1-inch (25 mm) units with 1/2-inch (13 mm) airspace and two 1/4-inch (6 mm) lites							
Glass Type Coating if Any (Surface) Glass Outdoor Lite: + Indoor Lite:	VLT[2]	Visible Light Reflectance[2]		(BTU/HR°ft20° F) NFRC U-Value		SHGC[4]	LSG[5]
		Exterior	Interior	Winter Nighttime	Winter Argon		
Coated							
LUMAX 51 CLEAR + CLEAR	44%	19%	15%	0.45	0.43	0.44	1.01
LUMAX 68 CLEAR + CLEAR	59%	22%	19%	0.47	0.45	0.57	1.03

1. Data is based on center-of-glass performance of representative factory production samples. Actual values may vary due to the production process and manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBNL Window 7.3 software.
2. Transmittance and Reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.
3. U-Value – A measure of the insulating characteristics of the glass or how much heat gain or loss occurs through the glass due to the difference between indoor and outdoor temperatures and is measured Btu/hr•ft2•°F. The lower the number, the better the insulating performance. This number is the reciprocal of the R-value. Winter argon represents the winter nighttime U-value performance when the cavity is filled with a 90% argon/10% air/gas mixture.
4. Solar Heat Gain Coefficient (SHGC) – Measures how well a window blocks (or shades) the heat from sunlight. SHGC is the fraction of solar radiation transmitted through a window or skylight, as well as the amount that is absorbed by the glass and reradiated to the interior. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits and the greater the shading ability. The SHGC is similar to the Shading Coefficient (SC), but also accounts for absorbed, converted and inwardly radiated solar energy.
5. Light-to-solar gain (LSG) ratio is the ratio of visible light transmittance to solar heat gain coefficient.

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