

CRISLAN® /

Low-E
Selective Coatings



Myriad Botanical Gardens
Oklahoma city, Oklahoma 2011
Architect: Gensler - Washington DC

CRISLAN®

Definition

Crislan® Low-E is a curved double-glazing with a low emissivity coating on one of its glass surfaces (always facing the air cavity), reaching exceptionally low overall heat transfer coefficients (U-value). While the most of the solar radiation short wavelength goes through the glass, the Low-E reflects to the inside the most of the long wavelength radiation generated by heaters among others.

The U-value for a regular 12mm (1/2" air gap) double glazing is 2.80 W/m²K (0.48 BTU/(h °F ft²)). When adding a hard Low-E coating, the U-value is reduced down to 1.4 W/m²K (0.246 BTU/(h °F ft²)). If the coating is a high selectivity one, the U-value would be 1.0 W/m²K (0.176 BTU/(h °F ft²)).

The lower the U-value, the higher the efficiency in slowing down heat exchange at both sides of the glazing.

There are few coatings that can be bent, basically the pyrolytic ones with the drawback that their performance is still far from that of magnetron or soft coatings, widely used in flat glass. It is thanks to the advances of the new generation of coatings along with innovation in annealing and tempering curved glass ovens, that Crislan® Low-E can already offer a broader range of low emissivity glazing solutions, being able to offer U-values as low as those found in the flat glass industry.

Definición

Crislan® Low-E es un doble acristalamiento curvado con una capa bajo emisiva en la cara en contacto con el aire, consiguiendo así bajos valores de transmitancia térmica (K). Buena parte de la radiación solar de onda corta atraviesa el vidrio mientras que la mayor parte de la radiación de onda larga generada, entre otros, por sistemas de calefacción, es reemitida al interior.

El coeficiente K para un doble acristalamiento con cámara de 12 mm de espesor es K=2.80 W/m²K. Empleando una capa bajo emisiva pirolítica, el valor K disminuye hasta 1.4 W/m²K. En el caso de contar con capas selectivas el valor podría ser de 1.0 W/m²K.

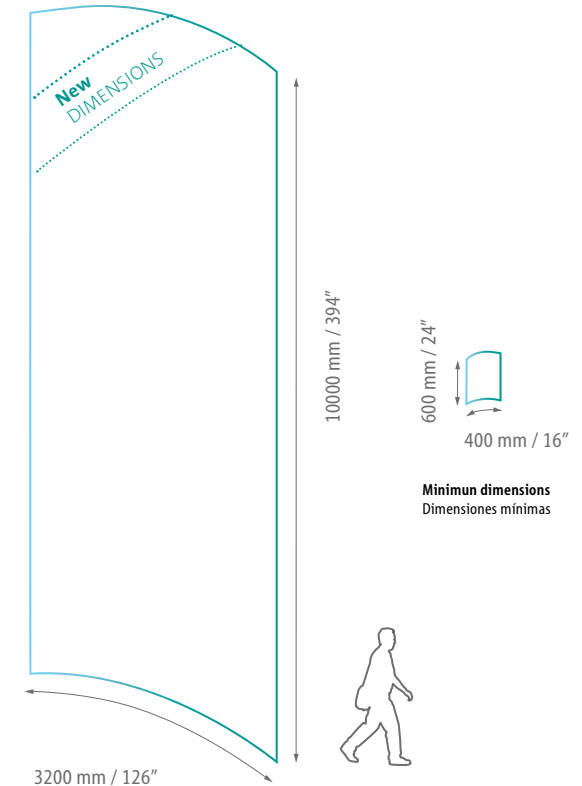
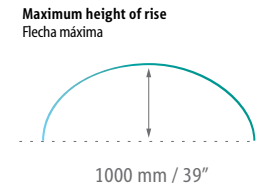
Cuanto menor es el coeficiente K mayor es la capacidad para retardar el flujo de calor entre las temperaturas del aire a ambos lados de una superficie vidriada.

Hay pocas capas que se puedan curvar, generalmente las pirolíticas, con el inconveniente de que su emisividad dista bastante de los valores ofrecidos por las capas magnetronicas. Gracias a la sofisticación de capas de nueva generación, junto con las innovaciones en los hornos de curvar (recocido y templado), Crislan® low-E ofrece valores K tan bajos como las que podemos encontrar en el vidrio plano.

Low-E
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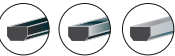
Dimensions / Dimensiones

For larger dimensions, please contact Cricursa
Para dimensiones superiores, consultar con Cricursa

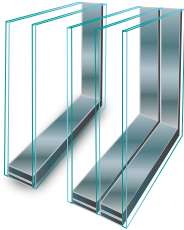


General Criteria	Aluminum Spacer	Thermix	Chromatech	Edgetech*	Edgetech Flex
Min. radius (spacer <12 mm)	600 mm	500 mm	700 mm	Any radius	Any radius
Min. radius (12 ≤ spacer ≤ 16 mm)	800 mm	700 mm	1800 mm	Any radius	Any radius
Min. radius (spacer >16 mm)	2700 mm	2000 mm	2500 mm	Any radius	Any radius
IGU weight > 200 kg	√	no	√	√	√
WarmEdge	no	√	√	√ Better Edgetech Flex	√
Argon gas	no	√	√	√ Better Edgetech Flex	√
Spherical & complex geometries	no	no	no	√ Better Edgetech Flex	√
Cekal certification (Silicone DC 3363)	no	no	no	√	no
Edge Deletion	Size	Silicone + 9 mm	Silicone + 9 mm	Silicone + 9 mm	Silicone + 12 mm
	Tolerance	-0/+2 mm	-0/+2 mm	-0/+2 mm	-0/+2 mm
Silicone Tolerance	-0/+2 mm	-0/+2 mm	-0/+2 mm	-0/+2 mm	-0/+2 mm

Spacer size: from 10 to 22mm available in the most of the spacer types. In case of special requirements, contact Cricursa
Grosor: disponible de 10 a 22mm para la mayoría de los casos. Para grosos especiales contactar Cricursa
(+) Edgetech Super Spacer Triseal Premium Plus



Aluminium, stainless steel and WarmEdge Spacers
Varillas en aluminio, acero inoxidable y WarmEdge



DOUBLE & TRIPLE
GLAZING
DOBLE & TRIPLE
ACRISTALAMIENTO

Energy efficient glass / Vidrios de ahorro energético

Low-E
Selective Coatings

FKI-Federation of Korean Industries
Seoul, Korea 2014
Architect: Adrian Smith+Gordon Gill

