



COOL-LITE® SKN 176 & 176 II

Highly selective solar control coated glass



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Thermally efficient, higher-performance¹ solar control glass with high light transmission

This solar control glass achieves a high selectivity of 1.9.

Selectivity is the ratio between light transmission and solar heat gain. The higher the selectivity ratio, the better the glass performs when it comes to energy efficiency; important in high-rise and large glazed areas, where both natural light and solar control are crucial for energy efficiency and comfort.



BENEFITS

COOL-LITE® solar control glass can provide several benefits:

Energy efficiency

By limiting how much solar heat is transmitted through the glass, the need for mechanical cooling is reduced.

Thermal insulation

Solar control glass provides thermal insulation, helping reduce the need for heating in colder weather.

Neutral appearance

COOL-LITE® coatings are suited to large areas of glazing due to their neutral appearance, consistent colour and low reflection (see Calumen.com for product performance data).

PROCESSING

In order to achieve its performances, COOL-LITE® SKN 176 II (to-be-tempered, coated flat glass) must be:

- Tempered - compatible with Heat Soak Testing²
- Edge deleted³ prior to assembling into glazing
- Assembled into an IGU⁴
- Positioned on face 2 inside the IGU⁵

PERFORMANCE

	Ug-Value* (W/m²K)	Light Transmission TL** [%]	Solar Factor (g-Value)** [%]	Outside Reflection** [%]	Inside Reflection** [%]
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Standard DGU build-up 6/16/4 mm - coating on face 2, 90% Argon

COOL-LITE® SKN 176 II (on PLANICLEAR® OR ORAÉ®)	1.0	70	37	13	15
COOL-LITE® SKN 076 II (on DIAMANT®)	1.0	71	38	15	15

*according to EN673 **according to EN410 Values may differ for tempered (II) and annealed coatings with the same glass compositions

References

1. Higher performance, coated, flat glass, achieves an emissivity level of 3% or less. Saint-Gobain Glass' PLANITHERM® and COOL-LITE® products are higher performing than uncoated, flat glass substrates, based on emissivity level.
2. Heat Soak Testing - an additional form of heat-treatment, which is carried out after the thermal toughening process in order to reduce the risk of spontaneous breakage of toughened glass in service.
3. Edge deletion is the process of removing the coating around the perimeter of a glass pane prior to assembly into an IGU, typically done to improve the adhesion and sealing of the IGU.
4. IGU - insulated glazing unit.
5. In a standard double glazed unit (DGU) there are four potential surfaces to which coatings can be applied: surface 1 faces outdoors, surface 2 and surface 3 face each other inside the DGU, separated by a peripheral spacer which creates an insulating air space, and surface 4 faces directly indoors.

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