



GLASSILED FACADES

Glassiled-Facades is a laminated glass with embedded extra-high-power **light-emitting diodes** (LEDs) (RGB or monocolour). The LEDs are powered through a high-performance invisible conductive coating.

Two different structures are possible:

• Monolithic Glassiled

is a laminated glass comprising a base glass, a conductive coating and a cover glass.

• Double Glazing Unit

is a monolithic Glassiled assembled with an associated glass in double glazing.

Light can be directed outside (e.g. facades) or inside (e.g. atriums).

Benefits :

• **Transparent during the day, colours at night**

A completely transparent glass facade during the day turns into an impressive coloured object at night. For conservatories and atriums, Glassiled-Facades is perfectly suited to create a luminous sky at night while maintaining the facade's transparency at all times.

• **Creative freedom**

Effects range from the very subtle to the very elaborate. Architects will create real luminous pieces of art.

• **Visibility**

Glassiled-Facades gives something back to the community at night, helps people to feel safer and creates a new interactivity with the surroundings. The building becomes a new urban landmark.

• **A wide range of features: solar control, thermal insulation and light transmittance**

Glassiled-Facades, when used with other products from our range, provides enhanced solar control, thermal insulation and light.

• **Aesthetically pleasing with no wiring in sight**

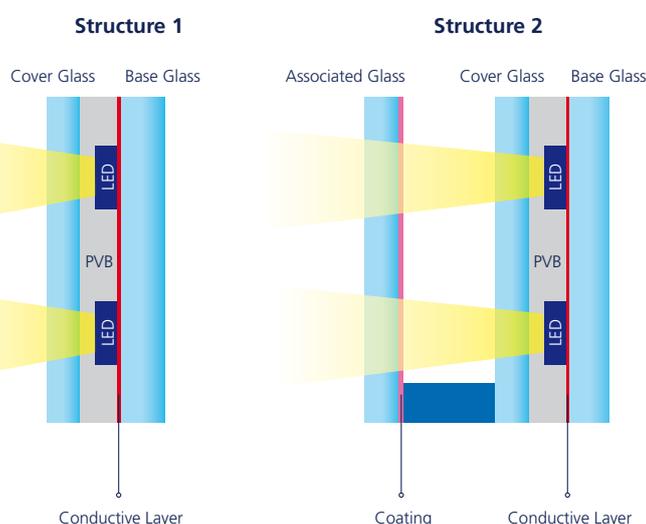
There are no cables or structures of any kind behind the glass surface; the light sources are fully part of the glass.

• **Facade lighting control**

Each glass can be independently lit and managed using a range of electronic protocols.

• **Production excellence**

A fully automated line houses all phases of the production process under one roof.



GLASS TYPE AND THICKNESS		3 mm	4 mm	5 mm	6 mm	8 mm	10 mm
BASE GLASS	Planibel Clear		●		●		
	Planibel Clearvision		●		●		
COVER GLASS	Planibel (clear & colour)		●	●	●	●	●
	Planibel Clearvision		●	●	●	●	●
ASSOCIATED GLASS (Structure 2)	Stopray Vision-50				●	●	●
	Planibel Energy N				●	●	●
	Sunergy Clear				●	●	●
PVB thickness ⁽¹⁾		Monocolor LED : 1,5 mm PVB			RGB LED : 3 mm PVB		
Double Glazing Unit		Gas: 90% Argon			Spacer thickness: 12, 15, 16, ou 20 mm		
Dimensions		MIN = 200 x 600 mm			MAX = 1500 x 2700 mm		
LEDs							
Type	Extra high power (decorative applications at a long distance)						
Intensity / LED ⁽²⁾ <small>(for 4 mm clear glass and function of LED colour)</small>	100 to 1700 mcd/LED						
	Monocolor <small>(cool white 6200 K, warm white 3000 K, red, green, blue)</small>			RGB			
MAX number of non-overlapping circuits	3			1			
MAX different LED color / Glass	3			-			
MAX number of LEDs	150 LED / m ²			100 LED / m ²			
MIN Distance between LEDs	50 mm						
MIN Distance between LED and glass edge	50 mm						
ELECTRICAL PARTS							
Power supply	<ul style="list-style-type: none"> - Basic power supply: On/Off - Advanced power supply : dimming and interface to external controler - On request : remote control, synchronization, special effects, animation 						
Electrical properties	Between 24 VDC to 160 VDC, depend on product size, number of LEDs, LED type and arrangement						
Electrical contact	<p>LED Monocolor: 2 bus bar along 2 longest edge of the glass, 6 mm wide at 10 mm from edge</p> <p>LED RGB : 2 bus bar along 2 longest edge of the glass 18 mm wide at 10 mm from edge</p> <p>Connecting cable: 1 cable out of the glass middle of vertical edge, 3 m long with polarized plug</p>						
USE							
Restrictions	<ul style="list-style-type: none"> - All conditions applicable to AGC laminated glass (Stratobel) are valid - No application in spandrels or with dark glass (function of geographical situation). - Only for night operation - MAX ambiance operating temperature (with LEDs ON): 35 °C - MAX temperature (with LEDs OFF): same than standard AGC laminated glass 						
CERTIFICATION							
Laminated Glass Standards Electrical Safety Standards Electromagnetic Compatibility Standards	Compliance to EN 14449 Compliance to EN 60598-2-1 Protection : Class II Compliance to EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547			 			

In all cases, the AGC technical team will review the LEDs arrangement and validate the feasibility. Other glasses or coating types, specific glass shapes, different electrical connections can also be evaluated by the technical team.

(1) As all laminated glass products Glassiled can have small air bubbles close to the edge of the glass or near electrical connectors. In specified thermal conditions for Glassiled, these bubbles are stable and can not cause delamination.

(2) The LED light intensity and flux decrease slowly over time. This is inherent to the LED technology. The life time of the current LED technology guarantees 50.000 hours at more than 50% of the initial light flux. This value is typical statistical value and large variations can exist especially but not only in function of conditions of use. The light intensity and flux generated by LEDs in one Glassiled can vary from LED to LED. A small colour variation from LED to LED is also possible and acceptable.

