

# TECHNICAL DATA SHEET

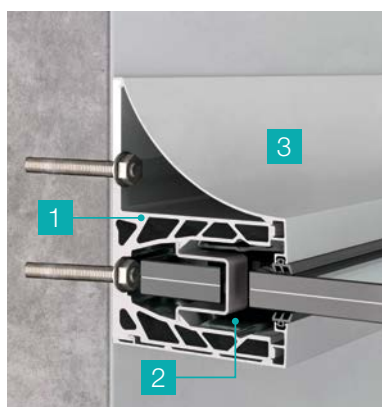
12/2022

## LAMINA CANOPY

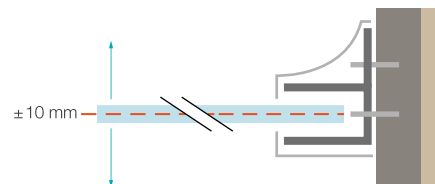


The Lamina canopy, thanks to the use of glass, guarantees maximum formal cleanliness in new construction, renovation and building restoration projects.

Lamina is composed of different elements (profile, fastening system, casing, laminated and tempered glass) designed to guarantee quick and easy assembly and an ideal aesthetic appearance for the world of contemporary architecture.



- 1** Extruded aluminium profile, drilled internally every 500 mm, and externally every 250 mm, prepared for different types of fixing: available in 6 or 3 metre bars and cut to size on request.
- 2** Patented adjustable clamps for fixing and adjusting glass ( $\pm 20$  mm), with thicknesses 17.52 - 21.52 - 25.52 mm (8/8.4, 10/10.4 and 12/12.4) and thicknesses 16.76 - 20.76 - 24.76 (8/8.2, 10/10.2, 12/12.2). For the use of laminated glass with 0.76 mm plastic, please request the appropriate compensator to be attached to the clamps.
- 3** The casings undergo an anodising process of 20 microns or powder coating that gives a finish with aesthetic and protective properties, suitable to ensure durability in case of exposure to the aggressive urban or marine atmosphere.

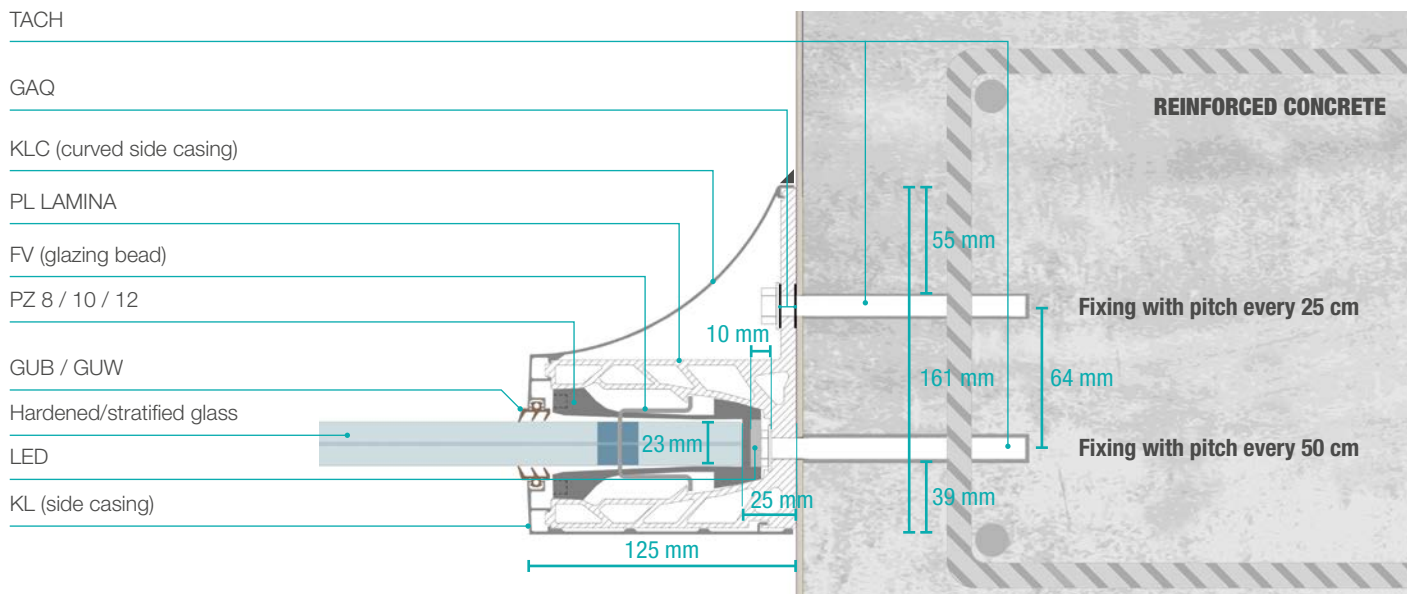


## SPECIFICATION ITEMS

**LAMINA** canopy made from extruded aluminium alloy profile ENAW6063T6 (dimensions 162 x 117 mm), to be fixed to a load-bearing wall. The profiles will be coupled with curved upper casing (**KLC**) and lower casing (**KL**) with a choice of 20 micron silver anodised or RAL 9010 painted finish (other finishes on request) and complete with gaskets between casing and glass. The system includes specific accessories, called 'clamps' (**PZ**), which enable the alignment, adjustment and fixing of the glass panels, as well as additional safety glazing beads (**FV**).

The system will be equipped with sheets of toughened glass, laminated with plastics (CLASS2) of various types, available in various thicknesses, such as 17.52 mm (8/8.4), 21.52 mm (10/10.4) and 25.52 mm (12/12.4). The choice of glass and plastic varies depending on the snow load indicated by the reference standard and the protrusion of the glass (the maximum allowed protrusion is 1300 mm).

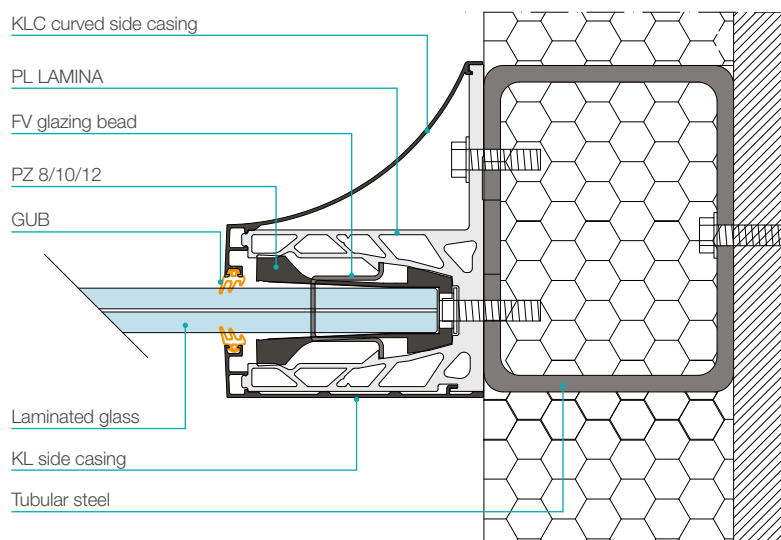
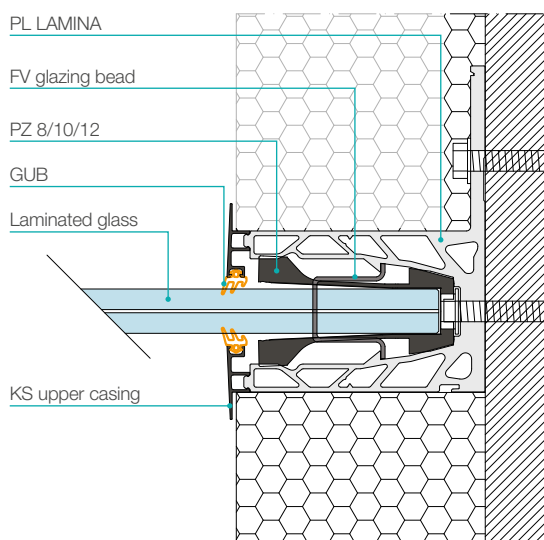
The system must be verified for the snow load of each installation, in accordance with Ministerial Decree 17/01/2018, indicating the reference value of the snow load on the ground for locations at an altitude below 1500 m asl and its coefficients.



Part	Notes
<b>PL LAMINA</b>	Cross-section dimensions: 162 mm x 117 mm 3 m, 6 m or customised bars drilled internally every 500 mm, and externally every 250 mm - ø 12 mm Tested for a snow load as described in NTC18
<b>PZ 8/10/12</b>	pz8 for glass 8/8.4 pz10 for glass 10/10.4 pz12 for glass 12/12.4 For glass sheets with plastics smaller than 1.52 mm, a compensator is required to be attached to the clamp
<b>KL</b>	Cross-section dimensions: 25 mm x 124 mm 3 or 6 m bars or cut to length on request Various finishes available
<b>KLC</b>	Cross-section dimensions: 103 mm x 124 mm 3 or 6 m bars or cut to length on request Various finishes available
<b>GUB</b>	Gasket between glass and casing Gaskets for glass 8/8 - 10/10 - 12/12 Available in black (silicone compatible) Available in white (silicone)

Part	Notes
<b>TACH OPTIONAL</b>	Threaded rod with nut and washer For fixing on reinforced concrete For use in combination with two-component chemical L 140 mm - M10 8.8 galvanised steel
<b>FV</b>	Glazing bead Consider 2 pieces per glass They provide greater safety i.e. that the glass does not fall out of its housing.
<b>GAQ OPTIONAL</b>	Anti-infiltration seal It prevents water from entering the anchoring layers
<b>LED OPTIONAL</b>	LED strips for indoor or outdoor use Supplied in coils; white light or primary colours; with transformer. Several sizes available

## ALTERNATIVE FIXINGS



## SAFETY - REGULATORY REFERENCES

Below are the main regulations governing the design and verification of canopies and roofs, specifically glass canopies.

**UNI 7697: 2015** - 12 February 2015

"Safety Criteria in Glass Applications"

The standard applies to glass in buildings and for any other use that is not regulated by specific relevant rules, while for those that are regulated, the standard only indicates the reference to apply.

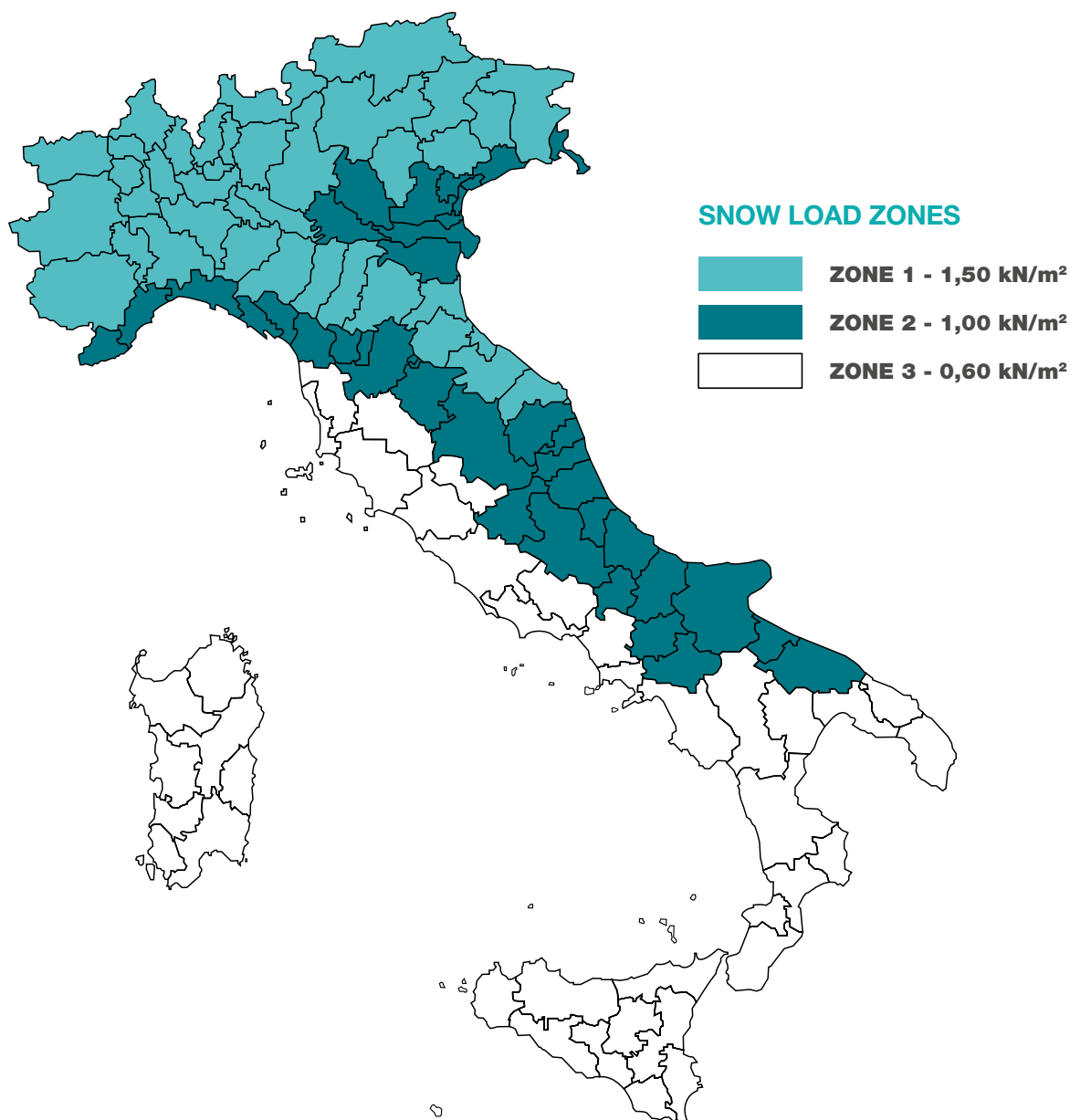
Specifically for canopies, it indicates the type of glass to be used.

## SNOW LOAD ZONES ON ROOFS

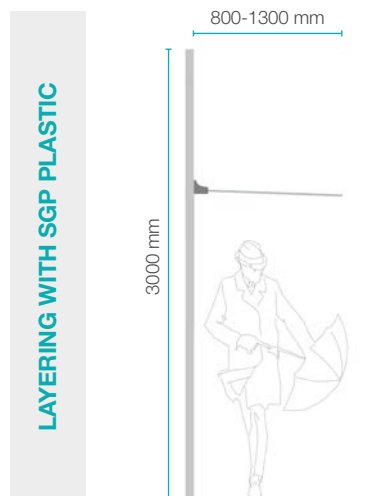
**D.M. 17 January 2018 - NTC 2018 UPDATE OF TECHNICAL STANDARDS FOR CONSTRUCTION**

For roofs and canopies it indicates the reference value of the snow load on the ground for locations below 1500 m above sea level\*.

\* Check any indications issued by the territorial public body.



## TYPES OF GLASS



### SITUATION A

two sheets of toughened glass laminated with plastic **SGP** 1,52 mm

	EXTENSION (mm)					
GLASS (mm)	0,80	0,90	1,00	1,10	1,20	1,30
8+8	4,71	3,47	2,6	1,98	1,50	1,14
10+10	7,28	5,42	4,13	3,19	2,48	1,95
12+12	10,36	7,78	5,99	4,68	3,69	2,94

### SITUATION B

two sheets of toughened glass, one of which is broken, laminated with 1.52 mm **SGP** plastic

	EXTENSION (mm)					
GLASS (mm)	0,80	0,90	1,00	1,10	1,20	1,30
8+8	1,71	1,28	0,97	0,75	0,59	0,47
10+10	2,74	2,06	1,58	1,24	0,99	0,79
12+12	4,01	3,02	2,34	1,85	1,48	1,2



### SITUATION A

two sheets of toughened glass laminated with plastic **DG41** 1,52 mm

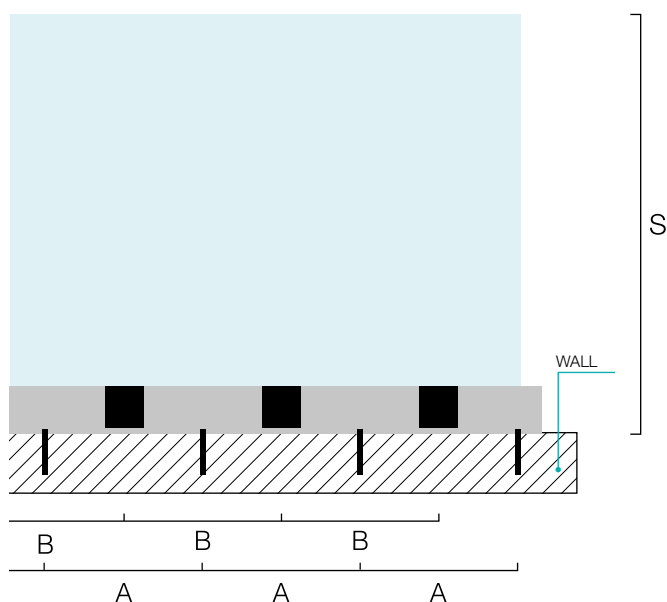
	EXTENSION (mm)					
GLASS (mm)	0,80	0,90	1,00	1,10	1,20	1,30
8+8	2,19	1,61	1,2	0,91	0,7	0,53
10+10	3,54	2,63	1,99	1,54	1,2	0,94
12+12	5,2	3,89	2,98	2,32	1,84	1,46

### SITUATION B

two sheets of toughened glass, one of which is broken, laminated with plastic **DG41** 1,52 mm

	EXTENSION (mm)					
GLASS (mm)	0,80	0,90	1,00	1,10	1,20	1,30
8+8	1,71	1,28	0,97	0,75	0,59	0,47
10+10	2,74	2,06	1,58	1,24	0,99	0,79
12+12	4,01	3,02	2,34	1,85	1,48	1,2

## FASTENING CLAMPS (PLAN VIEW)



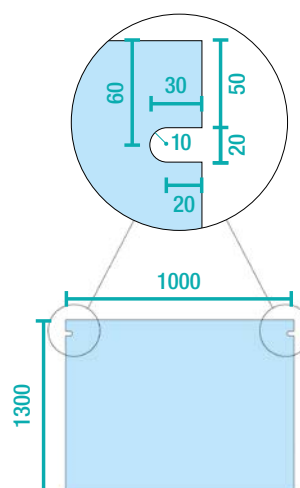
Centre-to-centre distance  
between fixing brackets  
(clamps and threaded rods)

A 250 mm (outside) +  
500 mm (inside)  
(6 fix/m)

B 200 mm  
(5 pz/m)

S ≤ 1300 mm  
(total protrusion)

## GLASS NOTCH PATTERN



## CUSTOMISATION OF FINISH

The Garda system is fully customisable: the casings are available in 11 finishes and many other customisations with anodic treatments in the available colours or powder coating according to RAL tables: standard finishes and design finishes designed to meet contemporary architectural demands.

### STANDARD FINISHES



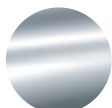
SILVER

WHITE  
RAL9010



STRUCTURED

### DESIGN FINISHES



POLISH  
(15 micron)



CHAMPAGNE



BURNISHED  
GREY



DARK  
BRONZE



CORTEN



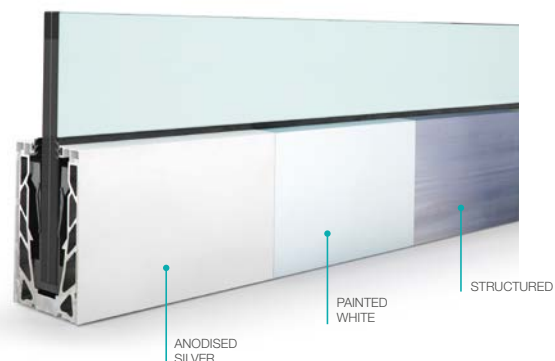
WOOD  
EFFECT



MATT  
GOLD



BLACK  
ANODISED

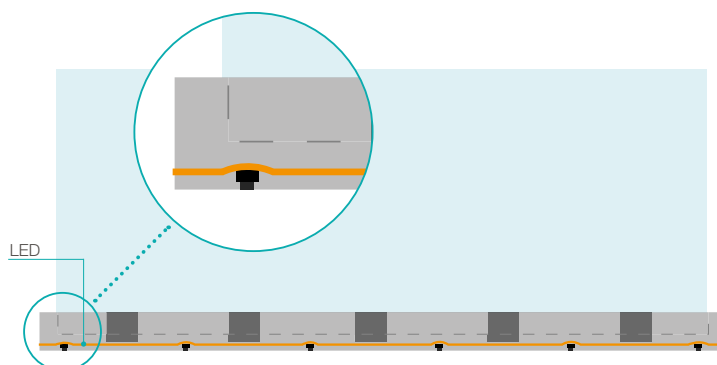


## CUSTOMISATION OF GLASS AND LEDS

Customisation of the glass can be achieved by various processes: layering with coloured plastics, internal layering enamelling, or screen printing. Furthermore, each solution can be combined with the use of LEDs to create a striking lighting effect.

Curved glass can be mounted on all systems of the Garda line with radii starting from a minimum of 200 cm in plan or perspective view.

To make curved balustrades in plan view, the profiles are curved, as well as the casings, according to the request.



## SYSTEM ASSEMBLY

Each profile is ready for installation: the canopy is completed with fastening screws (optional), gaskets, covers, clamps.  
Final adjustment is carried out with the aid of a simple Allen key or by using the special extension (**PR55**) for the power tool, which makes tightening the adjustment screws even quicker.

SCAN THE QR  
CODE AND  
WATCH THE  
INSTALLATION  
VIDEO TUTORIAL



**1** Drill the wall with the drill, positioning the profile and fixing screws.



**2** Lay the clamps inside the profile every 200 mm. Do not place the clamps over the fixing screws.



**3** Insert the glass and place glass stops at the beginning and end of each glass.



**4** Adjust the inclination of the glass using the screws on the clamps and tighten.



**5** Place the gaskets on the finishing casing and put the casing on the profile.



**6** Silicon the casings. Installation finished.



## DOWNLOAD CATALOGUE AND BIM FILES AND WATCH THE INSTALLATION VIDEO

Discover all the advantages  
of the Garda system at [www.aluvetro.it](http://www.aluvetro.it)

