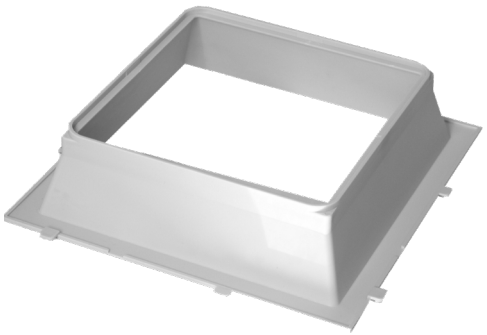
PYRAMIDAL FRAME



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1. CODE REGISTRY

Code	Description	Colour	(mm)	Weight	Pkg. / Pallet
VET03-5021	Frame for installation of full glass plate/"Pull" grid	Grey	200 x 200	125 gr/pc.	100 pc. / 600 pcs.

MATERIAL Made of PP (polypropylene).

2. USE

Used together with the tile (VET03-5021). Interposed with a solid glass plate (VET03-5020) in order to allow the ventilation of rooms and/or spaces below.
Horizontal structures are all those linear or curved structures, for indoor and outdoor applications.
These structures can be built at the site or prefabricated. Take the following parameters into account when deciding on the type of installation:

- dimensions of the surface to be built
- weight of the Vetroarredo structure
- whether it will be indoors or outdoors
- the number and sequence of Vetroarredo installations
- complexity of the shape/geometry

PRELIMINARY PHASE

A wide range of different solutions for surfaces that are suitable for pedestrian traffic and at the same time guarantee the glass peculiar features, as well as safety and stability.

CALCULATING THE DIMENSIONS AND THE CARRYING CAPACITY

The glass blocks for horizontal structures are used for panels which are just leaned on something.
The designer shall avoid glass blocks works that are fixed or restrained in supporting structures.
Glass blocks do not represent structural elements because they just have aesthetic and dividing functions and can support only their own weight and a perpendicular live load.
This load shall be mainly static, and these structures shall be considered suitable to pedestrian traffic.
Using small size glass works increases safety because in this way the foot also touches the joint and not only the glass surface, and slip resistance is higher.
We recommend a joint of at least 3 cm between the glass blocks. When designing skylights you should take into consideration a sloping structure for the downflow of rainwater.

Dimension (mm)	Horizontal Glass Block		Approximate weight of the structure kg/m²	Number of pieces per m²
	Model	Unit weight (kg)	3 cm joints	3 cm joints
190 x 190 x 80	**VET01-5030**	2,90	≈ 105	≈ 21
200 x 200 x 22	**VET03-5020**	2,30	≈ 100	≈ 19
145 x 145 x 55	**VET01-5033**	1,40	≈ 90	≈ 33
190 x 190 x 70	**VET01-5034**	2,60	≈ 95	≈ 21

This table shows the weight per m² of made of cement mortar with a weight of 1.800 kg/m² and a reinforcement for each joint composed of two steel bars weighting 0.39 kg/ml (ø 8 mm).
For 145 x 145 x 55 glass blocks we have taken into consideration, for each joint, only one 8 mm diameter rod.
For calculating the weight of glass blocks structures with joints larger than 3 m

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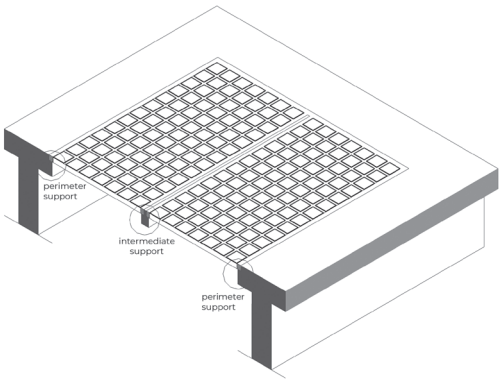
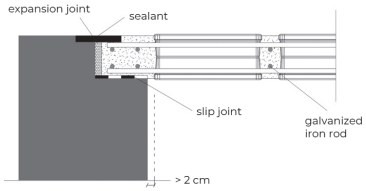
Overload		Structures which are not suitable for pedestrian traffic 200 kg/m²			Structures suitable for pedestrian traffic 400 kg/m²		
Bar diameter (mm)		**ø 6**	**ø 8**	**ø 10**	**ø 6**	**ø 8**	**ø 10**
Model							
VET01-5030	m²	4,5	8,0	9,5	2,7	4,8	6,0
VET01-5034	m²	4,0	6,5	8	2,3	4	4,5
VET01-5033	m²	3,5	4,5	5,5	2,0	2,5	3,0

The table shows the maximum dimensions for horizontal panels with 3 cm joints; the limits are calculated in relation to overload, reinforcing bars and glass blocks type.
The values have been calculated at the following conditions:
- Grating panels where supported on all four sides;
- Evenly distributed overload;
- Permitted stresses:
  - Iron 1.000 kg/cm²,
  - Cement 50 kg/cm²;
  - 3 cm joint

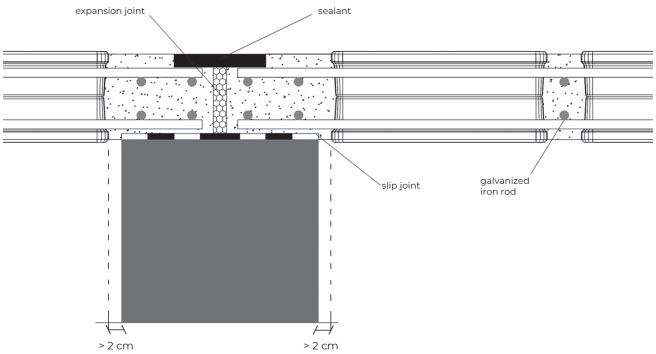
PERIMETER SUPPORTS



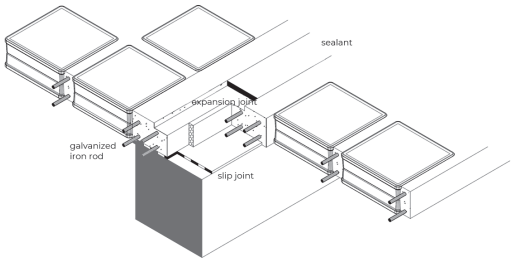
The designer must allow for at least **2-3 centimetres** between the load-bearing structure and the first row of glass blocks in the panel, in order to prevent the glass from coming into direct contact with the support.
The support should run along the entire perimeter of the panel thanks to the insertion of a slip joint. Both the panel and the supporting structure must be properly and adequately dimensioned.
If the glass block structure is even with the roof or walls, the designer must provide for an elastic expansion joint finished with a suitable sealant to be placed on the upper part of the panel.



INTERMEDIATE SUPPORTS



When intermediate supports are present, the designer must allow for at least **2-3 centimetres** between the load-bearing structure and the first row of glass blocks in the panel, in order to prevent the glass from coming into direct contact with the support.
Moreover steel reinforcements must not be continuous in order to avoid internal stresses to the same structure.



3. TECHNICAL SPECIFICATION

Specification	Description	Unity	Price
Dak.I.VET03.5021	Supply and installation of tile truncated cone for laying glass blocks for horizontal use on the floors. Available in size 200 x 200 mm. Made of PP (polypropylene). Used together with the horizontal solid glass plate carrier (VET03-5020) and/or with the pull grid (VET01-5080DK). Dimension 200 x 200 mm.....	pc.	-

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