GENERAL CATALOGUE PLASTIC BUILDING PRODUCT

- COMPANY PROFILE
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- MULTIWALL SHEETS
- SOLID SHEETS

BOZZA FINALE PRESTAMPA INGLESE 16-05-2011

dott.gallina

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COMPANY PROFILE

Industrie Materie Plastiche Dott. Gallina was founded in 1960 by Pier Aulo Gallina, originally to manufacture profiles for the automotive industry. With developments in technology and the expansion of the market for thermoplastic materials, Dott. Gallina extended its range of products to include sectors such as construction and industry and is now a leading name on the international market.

The company currently has a workforce of some 170 people and production plants in Italy, Greece, Poland, the US and India.

Dott. Gallina manufactures plastic profiles for bodywork and upholstery for the automotive sector and supplies multiwall sheets, solid sheets and modular polycarbonate panels for roofing and glazing applications to the construction industry. These products are rapidly gaining ground in the marketplace for building materials due to their optical properties (transparency) similar to that of glass and superior mechanical and thermal characteristics.

Dott. Gallina is at the forefront of this development, committed to a policy of engineering and technological research, investing in leading-edge equipment and implementing strict quality control procedures.

The catalogue, with its new graphics and revised technical content, is a guide to our products and accessories that will help you choose the best solution depending on the type of application and technical specifications.

Our modular polycarbonate systems, multi-wall and solid polycarbonate sheets are innovative products and all guarantee good physical, mechanical and aesthetic properties.

OFFICES AND PRODUCTIONS SITE

SITES	REGIONS
ITALY	LA LOGGIA (TURIN) - DOTT.GALLINA (*)
SPAIN	MADRID - AISLUX S.A.
GREECE	KILKIS - GA PLASTICS S.A.
POLAND	TYCHY - DOTT.GALLINA POLAND (*)
US	JANESVILLE (WISCONSIN) GALLINA USA LLC (*)
INDIA	NEW DELHI - GALLINA INDIA (*)
FRANCE	PARIS
GERMANY	EBERSTADT
BELGIUM	BRUGES

***PRODUCTION SITE**

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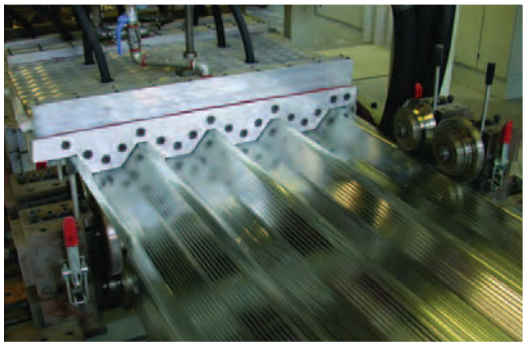
proimpianti S.R.L.

GALLINA POLAND

GALLINA USA

GALLINA INDIA

GA PLASTICS



TECHNOLOGY

POLYCARBONATE IN THE CONSTRUCTION INDUSTRY

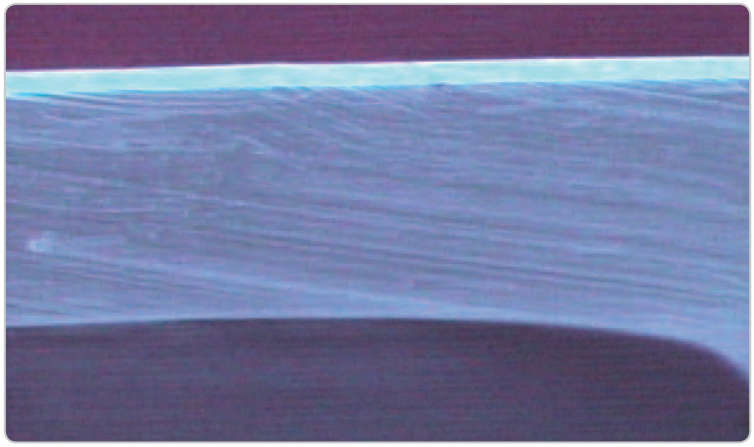
Polycarbonate is an innovative engineering plastic that is also versatile due to its transparency, good thermal insulation and impact strength. This makes it suitable for use in a wide range of residential and industrial building applications.

THE PRODUCTION PROCESS

Extrusion is a process used to produce continuously formed plastic multi-wall profiles and solid sheets.

U.V. PROTECTION

All products are co-extruded to ensure protection against exposure to ultraviolet radiation, extending their life and delaying the natural ageing of the material.

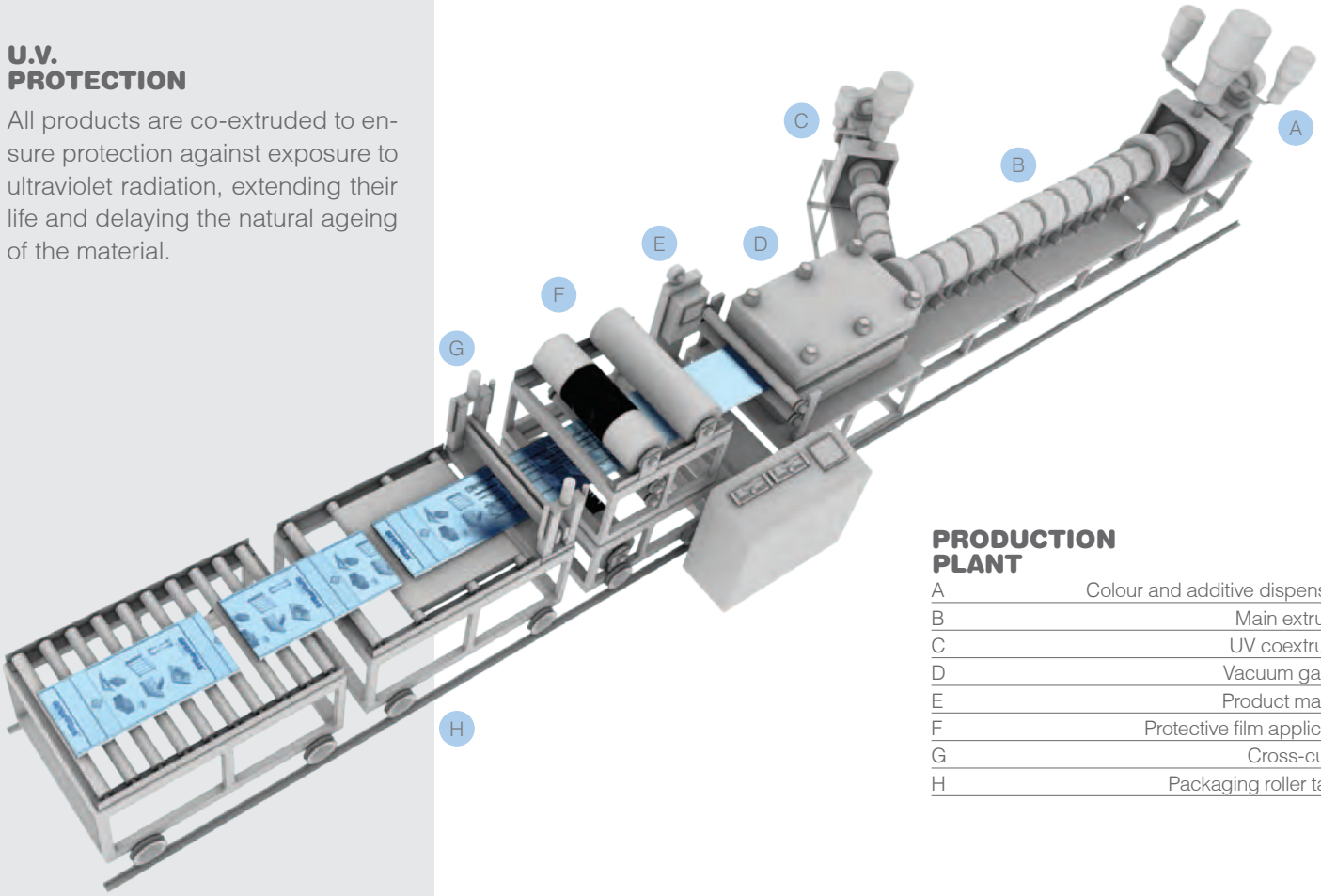


COEXTRUSION
Coextrusion observed with a microscope.

PoliCarb® MULTIWALL SHEETS

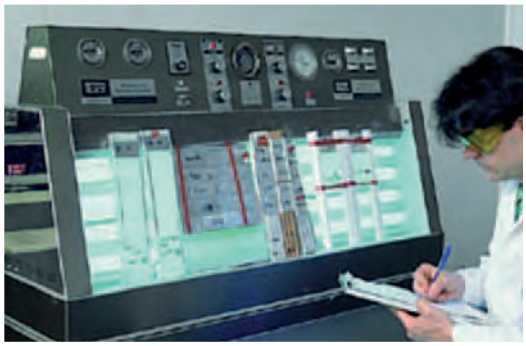
PoliComp® SOLID SHEETS

arcoPlus® MODULAR SYSTEMS



PRODUCTION PLANT

A	Colour and additive dispensers
B	Main extruder
C	UV coextruder
D	Vacuum gauge
E	Product marker
F	Protective film applicator
G	Cross-cutter
H	Packaging roller table



CERTIFICATION

PRODUCT CERTIFICATION

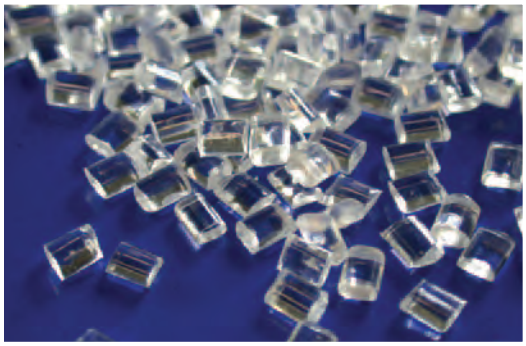
Products are certified by authoritative laboratories and international bodies.
For further information please visit our website, www.gallina.it.

ITC
CSTB
SOCOTEC
ES
MIAMI-DADE COUNTY
KPF KUNSTSTOFFPRÜFSTELLE FRANKEN

QUALITY SYSTEM

The company operates a quality system certified to:
ISO 9001
ISO 14001
ISO TS 16949

SINCERT
SISTEMA QUALITA' CERTIFICATO
CERTO
ISO 9001:2000
ISO 14001
ISO TS 16949



POLYCARBONATE

LIGHTWEIGHT

Polycarbonate is a lightweight material that is used in the construction industry to reduce building costs while guaranteeing compliance with positive and negative wind load requirements.

TRANSLUCENT

A key feature of polycarbonate is its transparency. The use of natural lighting, achieved by installing translucent polycarbonate roofing and walls, creates a more comfortable ambience while also ensuring good thermal insulation. Polycarbonate can be suitably tinted to modulate light transmission, optimise shading and thus reduce overheating inside the building. Coloured pigments are used to achieve pleasant colour effects to satisfy the most demanding aesthetic and architectural requirements.

VERSATILE

We supply an extensive range of products for use in the construction of translucent roofing and walls, skylights, fixed and openable insulated windows.
Our continuous research has led to the development of a series of steel and aluminium accessories to complete the range.
These are designed to make installation simple and safe and ensure compliance with the applicable fire and load strength ratings and safety of building requirements. Our products are all certified to the latest thermal insulation and energy saving standards.

PHYSICAL PROPERTIES

	value	test method
Density	1.200 Kg/m³	ISO 1183 - DIN 53479
Water absorption	± 0.19 %	ASTM D570

OPTICAL PROPERTIES

	value	test method
Light transmission	89 %	ASTM D570
Refraction index	1.58	ISO 489 - DIN 54391

MECHANICAL PROPERTIES

	value	test method
Resistance to tensile stress	66 MPa	ISO R527 DIN 53455
Resistance to yield stress	60 MPa	ISO R527 DIN 53455
Tensile modulus	2.300 MPa	ISO 178
Elongation at break	150 %	ISO R527 DIN 53455
Izod impact	860 J/m	ISO 180/4A

THERMAL PROPERTIES

	value	test method
Application temperature	-40 +120°C	
Linear thermal expansion	0,065 mm/m°C	
Vicat (B/50)	151 °C	ISO 306 - DIN 53460

UV AND HAIL-RESISTANT

The exterior surface of the panel is co-extruded with high-performance UV-absorbing polycarbonate to ensure excellent protection against ultra-violet rays, hail and accidental impacts even after prolonged exposure to sunlight.

AN ENVIRONMENTALLY FRIENDLY MATERIAL

The various phases of polycarbonate processing involve very low energy consumption and environmental impact.
Polycarbonate is an energy-efficient solution and is totally recyclable at the end of its life.

SAFE

Polycarbonate has a particularly high impact strength. Our products are therefore highly resistant to accidental impacts and hail and meet the requirements of safety standards for translucent glazing in public and work environments.

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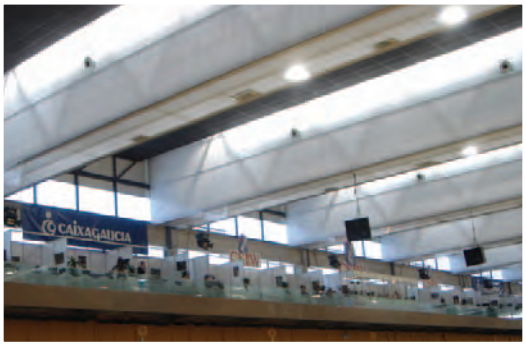


CHEMICAL RESISTANCE

	AGENT	VARIATION
ALCOHOLS	Methyl alcohol	Cracking
	Ethyl alcohol 50%	Unchanged
	n-Butyl alcohol	Unchanged
	Ethylene glycol	Unchanged
ALKALI	Sodium hydrate 1%	Unchanged
	Sodium hydrate 10%	Clouding
	Ammonium hydrate 10%	Browning
	Calcium hydrate 10%	Unchanged
INORGANIC ACIDS	Hydrochloric acid 35%	Cracking
	Hydrochloric acid 10%	Unchanged
	Sulphuric acid 70%	Unchanged
	Sulphuric acid 30%	Yellowing
	Nitric acid 40%	Yellowing
	Nitric acid 10%	Yellowing
	Cromic acid 10%	Unchanged
INORGANIC SALTS	Sodium chloride 10%	Unchanged
	Potassium nitrate 10%	Unchanged
	Potassium Bicrom. 10%	Yellowing
	Sodium sulphate 10%	Unchanged
	Ammonium chloride	Unchanged
	Sodium carbonate 10%	Unchanged
	Sodium bicarbonate 10%	Cracking
LUBRICATING OILS	Silicon oil	Unchanged
	Paraffin oil	Unchanged
	Machine oil	Unchanged
PLASTIFIED	Tricresyl phosphate	Clouding
	Dioctyl Adipate	Unchanged
	Butyl Stearate	Unchanged
	Trimetil. foreign acid	Unchanged
ORGANIC ACIDS	Acetic acid 70%	Unchanged
	Acetic acid 10%	Unchanged
	Formic acid 30%	Unchanged
	Lactic acid 5%	Unchanged
	Oxalic acid 10%	Unchanged
	Benzoic acid 10%	Unchanged
	Oleic acid 100%	Unchanged
VARIOUS	Benzol	Fast dissolution
	Toluol	Fast dissolution
	Industrial petrol	Yellowing - Cracking - Opacification
	Kerosene	Unchanged
	Naphtha Diesel	Unchanged
	n Heptane	Unchanged
	Methylethylketone	Clouding - Softening
	Acrylonitrile	Fast dissolution
	Vinyl acetate	Clouding - Softening
	Styrene	Clouding - Softening
	Ethylic ether (5 °C)	Swelling
	Diethylenetriamine	Dissolution
	Ethylenediamine	Dissolution
	Triethanolamine	Cracking
	Phenol 5%	Yellowing - Opacification
	Cresol 5%	Unchanged
	Formalin	Unchanged

Polycarbonate has good resistance to most chemicals with which it is likely to come into contact during normal use.
Specific tests are recommended for applications where the material is likely to come into contact with aggressive chemicals.
It is essential to verify their compatibility prior to use. The table at the side provides a summary of reactions with some of the main products used.

PoliCarb®

MULTIWALL SHEETS

Optical and Thermal properties (EN 16153)

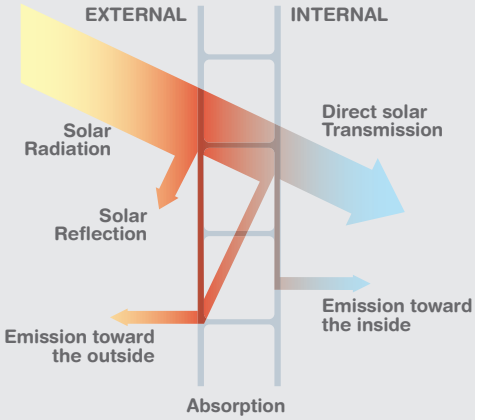
PROFILE	LIGHT TRANSMISSION (LT) %	SOLAR FACTOR (SF) %	SHADING COEFFICIENT (SC)	THERMAL TRANSMITTANCE (U) W/m²K
Policarb 2P-4mm				3,9
Crystal	80	79	0,91	
Bronze	63	75	0,86	
Opal	50	66	0,76	
Policarb 2P-4,5mm				3,9
Crystal	80	79	0,91	
Bronze	63	75	0,86	
Opal	50	66	0,76	
Policarb 2P-6mm				3,6
Crystal	82	81	0,93	
Bronze	60	72	0,83	
Opal	50	66	0,76	
Policarb 2P-8mm				3,3
Crystal	82	80	0.92	
Bronze	65	75	0,86	
Opal	50	65	0,75	
Policarb 2P-10mm				3,0
Crystal	81	80	0.92	
Bronze	65	75	0,86	
Opal	50	64	0,74	
Policarb 16mm WIDE				2,5
Crystal	85	83	0.95	
Bronze	65	70	0,80	
Opal	50	65	0,75	
Policarb 3P-10mm				2,7
Crystal	74	75	0,86	
Bronze	65	72	0,83	
Opal	52	62	0,71	
Policarb 3P-16mm				2,3
Crystal	74	76	0,87	
Bronze	40	55	0,63	
Opal	52	57	0,66	
Blue	45	70	0,80	
Green	60	70	0,80	
Policarb 3P-20mm				2,1
Crystal	74	75	0,86	
Bronze	40	55	0,63	
Opal	52	63	0,72	
Policarb 4P-6mm				3,1
Crystal	79	78	0,90	
Opal	45	53	0,61	
Policarb 4P-8mm				2,7
Crystal	79	78	0,90	
Opal	45	53	0,61	
Policarb 4P-10mm				2,5
Crystal	79	78	0,90	
Opal	45	53	0,61	
Policarb 5P-16mm RDC				2,1
Crystal	66	70	0,80	
Bronze	30	45	0,52	
Opal	40	55	0,63	
Policarb 5P-20mm RDC				1,8
Crystal	63	67	0,77	
Bronze	28	43	0,49	
Opal	40	49	0,57	
Policarb 5P-25mm RDC				1,6
Crystal	60	64	0,74	
Bronze	27	41	0,47	
Opal	40	45	0,52	
Policarb 6P-16mm				1.8
Crystal	60	62	0,71	
Opal	40	45	0,52	
Policarb 6P-20mm				1,6
Crystal	58	60	0,69	
Opal	38	43	0,49	
Policarb 6P-25mm				1,4
Crystal	55	58	0,67	
Opal	35	40	0,46	
Policarb 7P-25mm				1,4
Crystal	58	62	0,71	
Opal	40	45	0,52	
Reflecto	40	40	0,46	
Policarb 7P-32mm				1,2
Crystal	57	61	0,70	
Opal	39	43	0,49	
Reflecto	35	37	0,43	
Policarb 7P-40mm				1,1
Crystal	55	59	0,68	
Opal	35	39	0,45	
Reflecto	33	35	0,40	

LIGHT TRANSMISSION (LT)

Different pigments are used to obtain different light transmission values.
The values indicated in the table are based on calculations performed at specialist laboratories.

SOLAR FACTOR (SF)

Incoming solar radiation is reflected, partially absorbed, and transmitted to the inside.
The solar factor indicated in the table is the ratio, expressed as a percentage, between the total energy transmitted to the inside and total solar radiation.



SHADING COEFFICIENT (SC)

The shading coefficient of a transparent sheet is the ratio between the sheet's solar factor and the solar factor of a clear sheet of glass with a thickness of 3mm (SC=SF/0.87).

MODULAR SYSTEM

Optical, Thermal and acoustic properties (EN 16153)

PROFILE	LIGHT TRANSMISSION (LT) %	SOLAR FACTOR (SF) %	SHADING COEFFICIENT (SC)	THERMAL TRANSMITTANCE (U) W/m²K	ACOUSTIC INSULATION dB
arcoPlus324				1.8	16
Crystal	70	74	0,85		
Green	65	70	0,80		
Bronze	60	67	0,77		
Opal	45	50	0,57		
arcoPlus625				1,7	16
Crystal	70	74	0,85		
Opal	52	57	0,66		
arcoPlus344x				1,9	19
Crystal	72	77	0,89		
Green	65	70	0,80		
Bronze	50	62	0,71		
Opal	49	60	0,69		
arcoPlus347				1,1	22
Crystal	65	70	0,80		
Green	60	65	0,75		
Bronze	40	47	0,54		
Opal	40	44	0,51		
arcoPlus547				1,1	22
Crystal	65	70	0,80		
Green	60	65	0,75		
Bronze	40	47	0,54		
Opal	40	44	0,51		
arcoPlus684				3.3	18
Crystal	70	71	0,82		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	42	55	0,63		
arcoPlus6104				3.0	18
Crystal	70	70	0,80		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	38	53	0,60		
arcoPlus6124				2,7	19
Crystal	68	70	0,80		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	36	52	0,60		
arcoPlus6166				1,8	20
Crystal	65	68	0,78		
Green	48	53	0,61		
Bronze	30	42	0,48		
Opal	40	45	0,52		
arcoPlus626				1,7	20
Crystal	58	62	0,71		
Green	48	53	0,61		
Bronze	40	45	0,52		
Opal	33	48	0,55		
Velario 613				2,7	16
Crystal	76	81	0,93		
Opal	58	65	0,75		
Velario 20-5				1,7	16
Crystal	70	74	0,85		
Opal	52	57	0,66		
arcoPlus1000				2,7	16
Crystal	70	74	0,85		
Opal	40	45	0,52		
arcoPlusSUPER1000				1.8	16
Crystal	65	66	0,76		
Opal	37	40	0,46		
arcoPlusGrecaClick				3,0	16
Crystal	70	74	0,85		
Opal	45	50	0,57		
arcoPlusMiniGreca				3,0	16
Crystal	70	74	0,85		
Opal	45	50	0,57		
arcoPlusOnda - 6mm				3,2	16
Crystal	73	77	0,89		
Opal	45	50	0,57		
arcoPlusAislux Polivalente				1,3	21
Crystal	60	65	0,75		
Reflecto	40	40	0,46		
arcoPlusAislux Aisluxecure				1,4	21
Crystal	58	62	0,71		
Opal	40	45	0,52		
arcoPlusAislux Complet				1,3	21
Crystal	58	62	0,71		
Opal	35	40	0,46		
arcoPlusAislux PS				1,3	21
Crystal	58	62	0,71		
Opal	35	40	0,46		
arcoPlusAislux PSV				1,3 (25mm) - 1,4 (30mm)	21
Crystal	60	64	0,74		
Opal	40	45	0,52		

arcoPlus®

THERMAL INSULATION (U-VALUE)

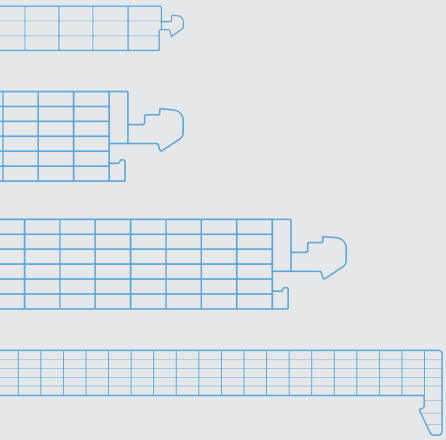
Heat loss is normally defined as thermal transmittance and referred to in physics as the “U-value”. It is the rate of heat loss through a unitary surface per degree centigrade difference in temperature between the two sides and depends on the properties of the material of which the structure is made and the linear thermal transmittance conditions.

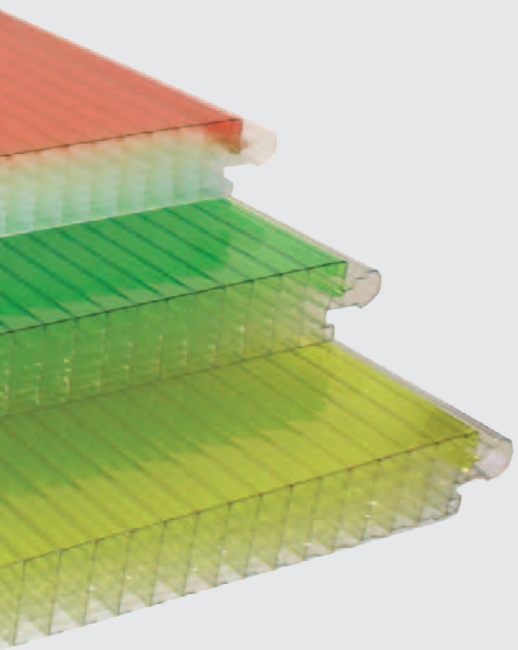
ACOUSTIC INSULATION

Sound insulation refers to the ability of the material to resist the transmission of impact sound. It varies according to the frequency and the physical properties, dimensions and installation constraints of the component.

PROGETTO Caleido

The line Progetto Caleido is dedicated to the realisation of facades and coverings with innovative aesthetic and architectural solutions.





PRODUCT LINE

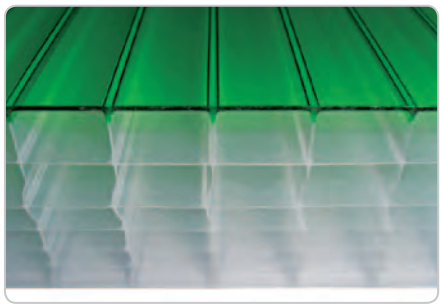
The arcoPlus® panels and the Policarb® multiwall sheets can be colored to modulate the light transmission, optimize the shadow effect and allowing thereby for a lower heating of the internal environment.

Caleido

All products available in the Progetto Caleido line are characterized by the indicated symbol.

THE PRODUCTION

The production of modular panels with transparent or translucent colors, and the use of the new double color technology, allows dott. Gallina to propose various solutions for applications on walls and as coverings.
The product line “”Progetto Caleido”” is made up of various modular systems.



THE TECHNOLOGY OF DOUBLE COLOR

The new extrusion technology with double color allows to sadisfy the chromatic needs of the project and at the same time to dose the light transmission recreating particolar settings.

LIGHT MANAGEMENT

Transpartent or translucent colors with the possibility to modulate light and color according to the needs of the customer.

NATURAL ILLUMINATION

Thanks to a natural illumination, obtained by the realisation of transparent coverings and walls in polycarbonate, high values of environmental comfort are gained maintaining a high rate of thermal isolation.

PRODUCT RELIABILITY

The safety of using proven composite systems of coextruded polycarbonate panels and alluminium profiles with a certificate and 10-year warrantee.

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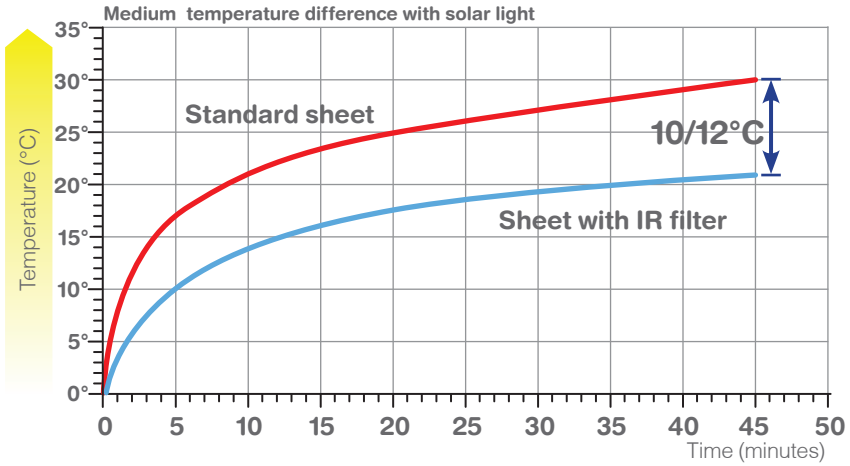
NEW PRODUCT RANGE

The Policarb®IR, Policomp®IR sheets and arcoPlus®IR panels let light in but not heat. They make up Gallina's new product range for transparent coverings and windows with solar control. All products from the IR line offer innovative solutions for typical building applications where high levels of light are wanted while reducing the internal heating. The potential result: reduced energy spending for cooling and for lighting as well as higher comfort. The new Policarb®IR sheets are available in all thicknesses and dimensions. The multiwall sheets, and the modular arcoPlus®IR panels offer incredible design flexibility in applications such as skylights, windows, greenhouses, conservatories, and many others thanks to the wide range of available products.

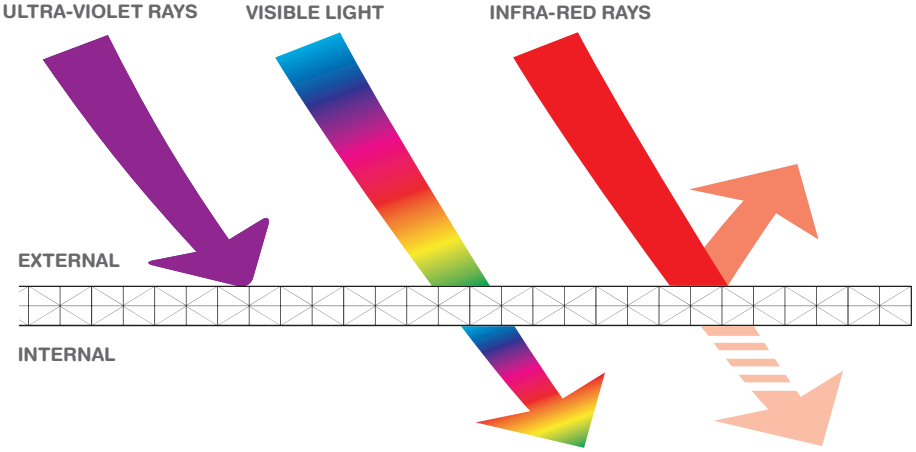


INTERNAL TEMPERATURE REDUCTION COMPARISON

Testing proves that products with a protective infra-red filter can significantly reduce internal heating.

NATURAL PROTECTION

The heat coming from solar heating is for the most part absorbed by the external surface, treated with IR absorbers, that limits radiation to the inside of the building and the consequent heating up.



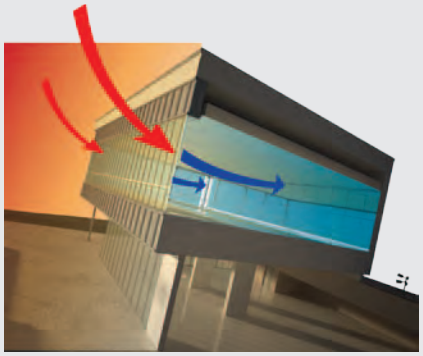
U.V. PROTECTION
all products in polycarbonate by Gallina are UV protected and block out the harmful ultra-violet radiation.

LIGHT TRANSMISSION
The Policarb®IR sheets and modular arcoPlus®IR panels transmit a higher quantity of light.

INFRA RED ENERGY
The Policarb®IR sheets and modular arcoPlus®IR panels transmit to the inside less infra-red energy.

1.8 POLYCARBONATE LINE OF FILTER PROTECTION IR

IR



SOLAR CONTROL TO DEFEAT THE HEAT

The control of the temperature and the management of heat are essential elements in maintaining a desired level of comfort within buildings. They are also critical elements for cost control and to maximize energy savings.
The products of the IR line absorb the part of the light relative to the infra-red rays (from 780 to 1400nm), effectively blocking the solar heat, while letting the solar light through.
The result is a reduction of the internal transmission of heat and a reduction of the cost for cooling the area. In fact all the products from the IR line can contribute to reducing the temperature increase up to 25% while increasing the light transmission by up to 60% with respect to other window products.

THE LASTING WARRANTY

All products from the line IR come with a written 10-year warranty against the reduction of its characteristics relative to light and solar transmission, turning yellow and breakage caused by hail.

IR

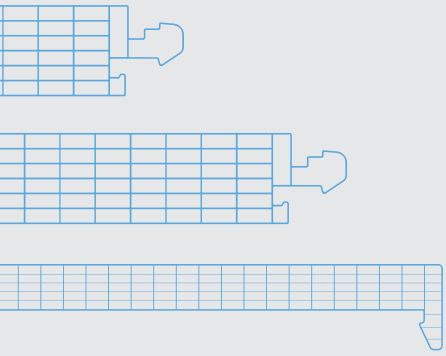
All products available with the IR treatment are characterized by the indicated symbol.

ENERGY SAVING

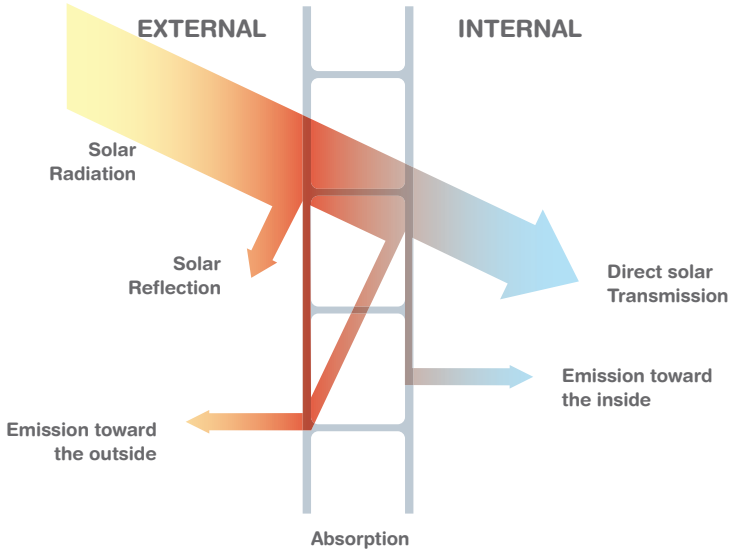
The multi-wall structure of Policarb® and arcoPlus® offers a real advantage in terms of thermal insulation. Calculated according to the guidelines of DIN 4701, there is a significant difference in fuel consumption between an industrial building with glass windows and the same building with multiwall polycarbonate glazing.

AR TREATMENT

In situation where a high efficiency of light transmission within a building is requested, through the AR treatment can have a better distribution of the light intensity on the surface, reducing reflections and dazzlings.



ENERGY SAVING



CALCULATION OF FUEL SAVING

The following formula is the calculation of fuel savings:

$$E = \frac{\Delta K \bullet S \bullet Gg \bullet 24}{Pt \bullet h}$$

Where:

E	Yearly fuel saving (Kg)
ΔK	Difference between thermal transmittance values of glass and polycarbonate (Kcal/hm²°C)
S	Windows surface (m²)
Gg	Seasonal heating factor (heated days per temperature average difference) (°C h)
24	Conversion factor
PT	Heating power of the employed fuel (Kcal/Kg)
h	Production of the heating plant (normal h=0,7)

ESTIMATE EXAMPLE : industrial shed

Location: Turin

(degree per day) 2570 • 24 = 61680 (degree per hour)	Gg • 24 = 61680 °C h
Surface: 1,40 (height) x 100 (boundary development)	S = 140 m²
Difference "ΔK": between U-GLASS 27 et arcoPlus344x (5,0 x 1,7) = 3,3 Kcal/hm² °C	ΔK = 3,3 Kcal/hm²°C
Fuel: oil-fire 10.200 Kcal/Kg	Pt = 10.200 Kcal/Kg
Plant production	h = 0,7
Therefore the yearly fuel saving will be:	$E = \frac{3.3 \times 140 \times 62.808}{10.200 \times 0.7} = 4.064$ Kg

LOWER HEATING POWER OF FUEL

Electric power	2.300	Kcal/KWh
Oil-fired heating	10.200	Kcal/Kg
Methane	8.200	Kcal/m³

SEASONAL HEATING FACTOR (DEGREE PER DAY)

Milan	2.340	°C
Rome	1.440	°C
Turin	2.570	°C
Palermo	690	°C

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USE AND MAINTENANCE

Never store the material in a place where it is exposed to sunlight while wrapped in its protective film

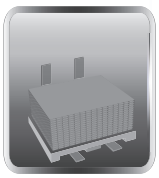
Install the material with the U.V. protected side facing the exterior and remove the protective film after installing

Allow for thermal expansion of the material

Only use polycarbonate-compatible silicone if necessary

Use adhesive aluminium tape to seal the air cells

Use water and neutral soap to clean the surfaces



Use suitable hoisting equipment to handle the material

CLEANING

To clean sheets and panels we recommend the use of water and neutral detergent only.
Do not use abrasive products.

THERMAL EXPANSION

Polycarbonate is subject to thermal expansion of 0.065 mm/m°C.
When installing polycarbonate sheets and panels always allow enough room for expansion.
If anchoring systems are used these must consist of the specific brackets and connectors provided for each product.

HANDLING

Take all the appropriate precautions when handling the material to avoid accidental impacts and scratches on the surface which could spoil the material's appearance and undermine its mechanical properties.

STORAGE

Avoid exposure to direct sunlight and rain to prevent any excessive build-up of heat in the packaging or the formation of condensation in the cells.
Do not remove the protective film before installing, but immediately after installation.

SEALING

Only use neutral, polycarbonate-compatible silicone for sealing.

MODULAR SYSTEMS

2.1 INTERLOCKING SYSTEMS:

This group of modular systems all have a tongue and groove connector system. The structure is specifically designed to ensure a weatherproof finish.
All systems are supplied complete with a range of accessories to ensure correct installation.
They are particularly suitable for roofing applications, continuous translucent glazing and false ceilings.

2.2 CONNECTOR SYSTEMS:

This group includes all the modular systems provided with a specific connector, depending on the type of application.
All systems are supplied complete with a range of accessories to ensure correct installation.
They are particularly suitable in roofing for covering large areas, translucent façades and glazing applications.

2.3 OVERLAPPING SYSTEMS:

This group of wall and roofing products can be used in continuous applications or with other insulated metal panels and corrugated sheets or panels. Their structural design and the use of a specific range of accessories guarantee a weatherproof finish.

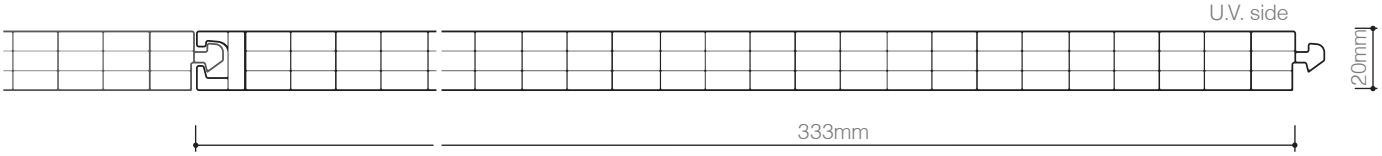
2.4 OPENING SYSTEMS:

This group of products can be used with the modular interlocking systems to create opening windows.

All arcoPlus® systems include aluminium profiles and anchor systems to guarantee resistance to positive and negative wind loads while allowing for linear expansion.

arcoPlus® 324

PROFILE



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and glazing applications

Caleido
LIGHT MANAGEMENT

PRODUCTION STANDARDS

thickness	20mm
structure	4 walls
effective modular width	333mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

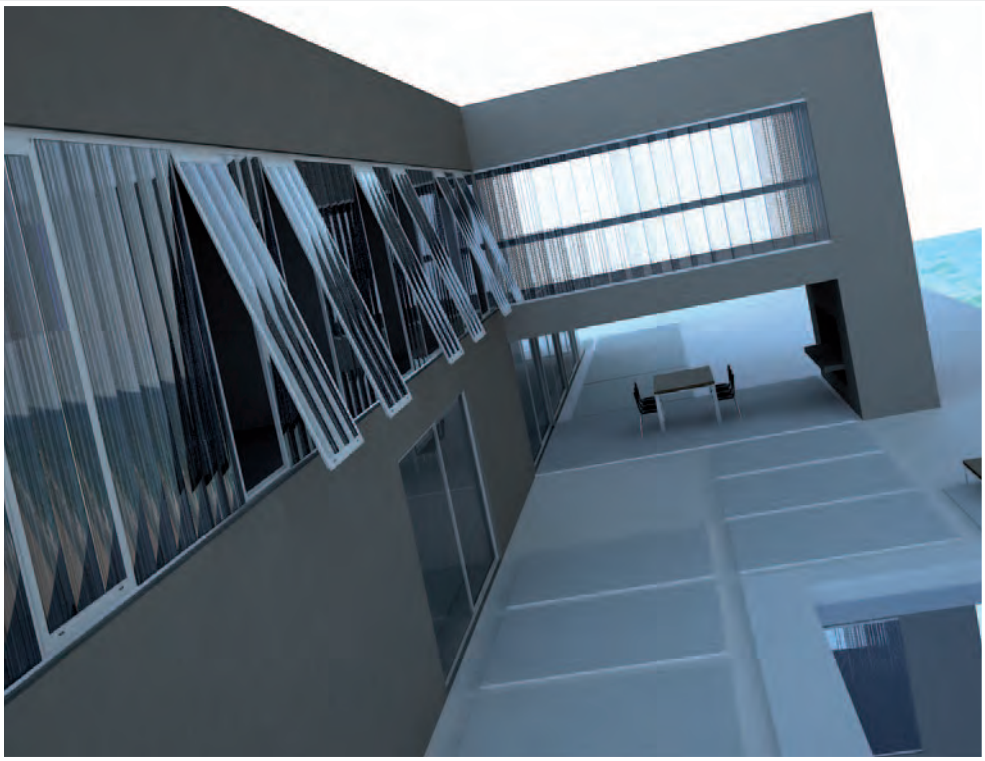
Thermal insulation	1,8 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®324 is a modular system of coextruded 4 walls polycarbonate panels with a thickness of 20mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®324 is not suitable for roofing applications.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation



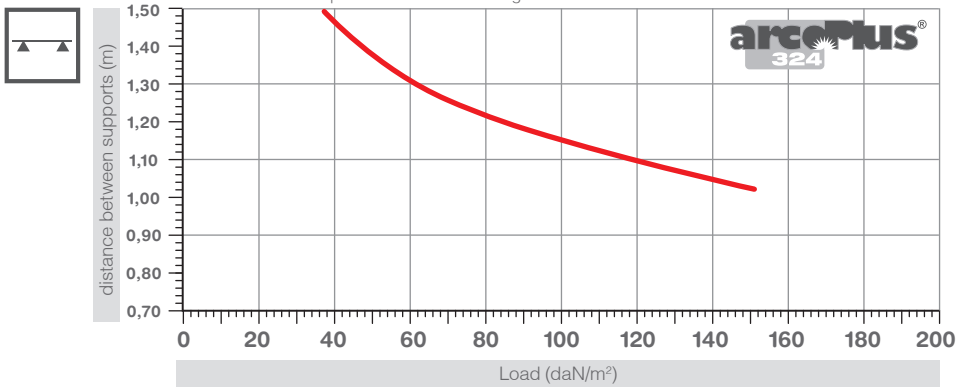
APPLICATIONS

- Vertical windows

LOAD RESISTANCE

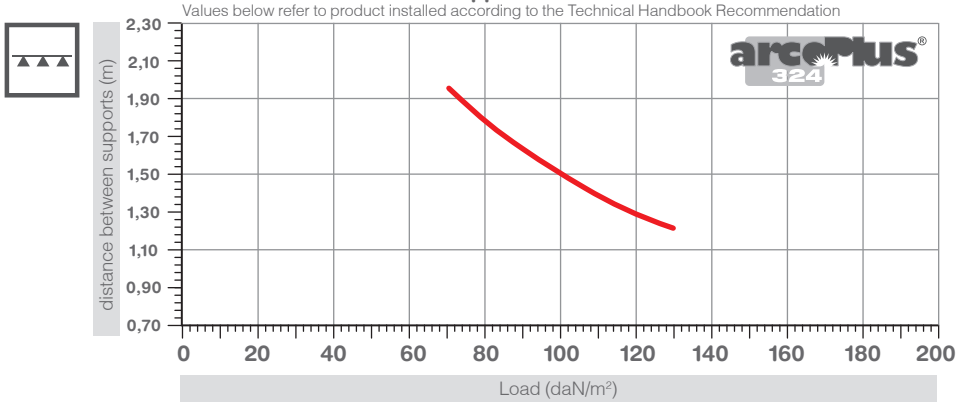
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation

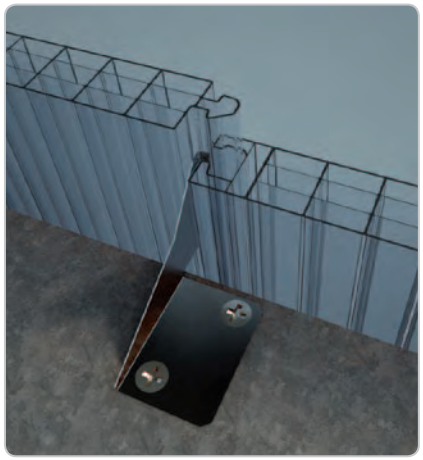


EASY AND LOW-COST INSTALLATION

The 20mm-thick, 4 walls structure with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames, thus eliminating heat loss due to the thermal bridges caused by these structures.

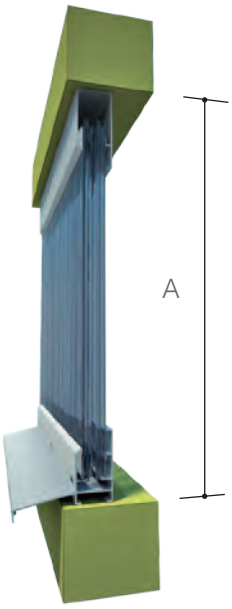
The modular connection ensures a watertight seal for glazing with an inclination of up to 30°.

For installations exceeding 1.5m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed (see load resistance graph). This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion.

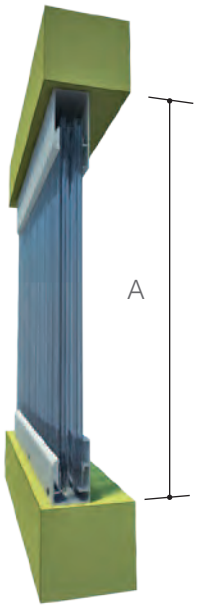


INSERTION OF PLATE
Insertion of stainless steel plates for anchorage to existing structures.

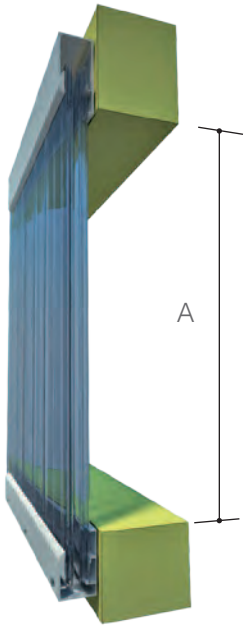
CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)



WITH EAVE
PL = A - 50 mm
A = opening measure

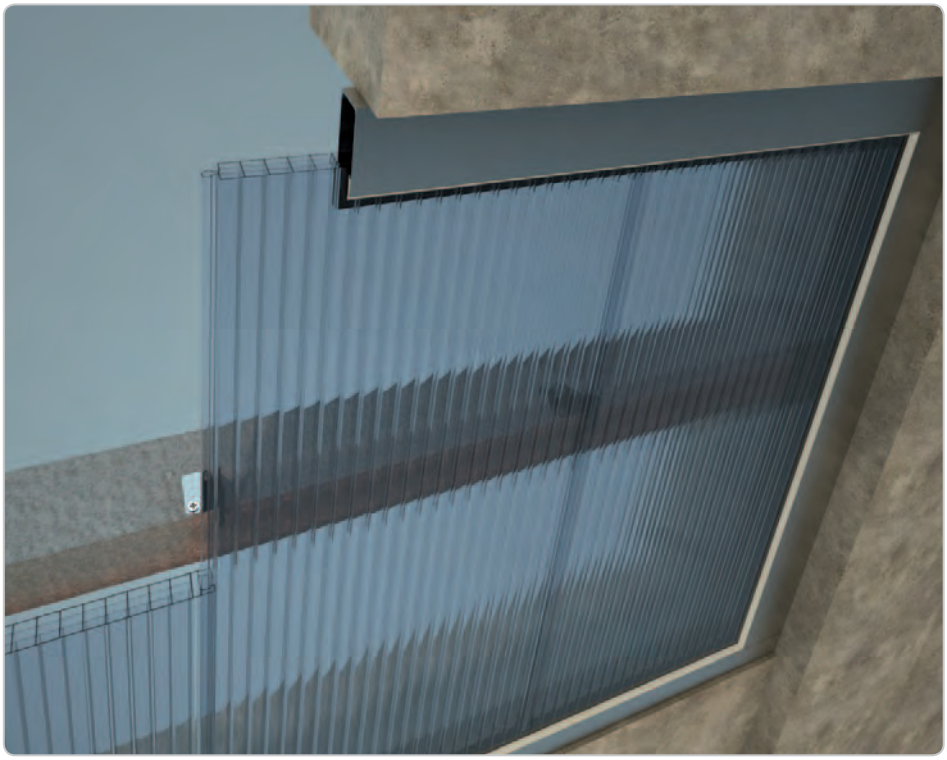


WITHOUT EAVE
PL = A - 40 mm
A = opening measure



OUTSIDE OF THE BUILDING
PL = A + 80 mm
A = opening measure

VERTICAL GLAZING
Construction of continuous transparent glazing, with section-breaker profile.



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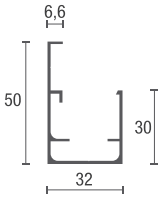
ACCESSORIES

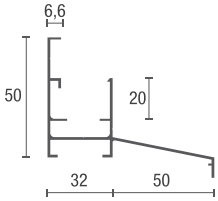
The system includes a complete range of aluminium profiles for installing the panels.
The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

METAL PROFILES

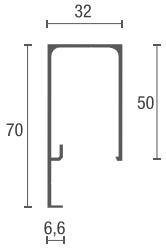
code 4062
Base AL profile



code 4064
Base AL profile
with eave



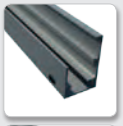
code 4061
Upper and side
AL profile



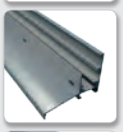
BASE PROFILE
Insertion of curtain wall panels on base profile, with gasket.

VERTICAL WINDOW
Positioning of anchor plates on section-breaker profile.

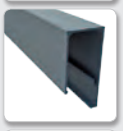
ACCESSORIES



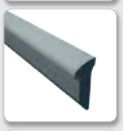
4062
Base AL profile



4064
Base AL profile
with eave

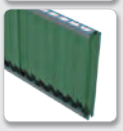


4061
Upper and side
AL profile



1169/B
Slip Coat Gasket

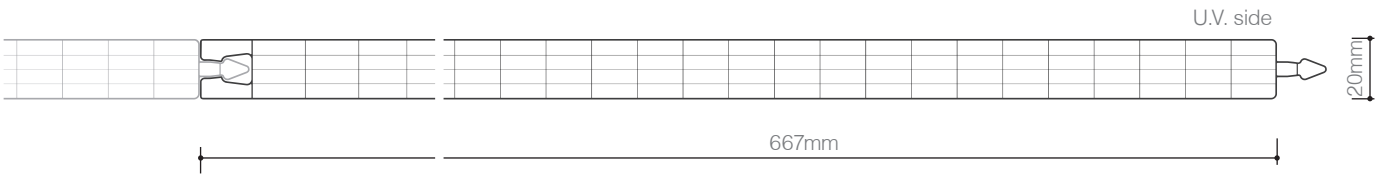
4063
Link plate



4066
Additional sealing tape

arcoPlus® 625

PROFILE



Modular system of UV protected multiwall polycarbonate for vertical window applications

Caleido
LIGHT MANAGEMENT

PRODUCTION STANDARDS

thickness	20mm
structure	5 walls
effective modular width	667mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,7 W/m2K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

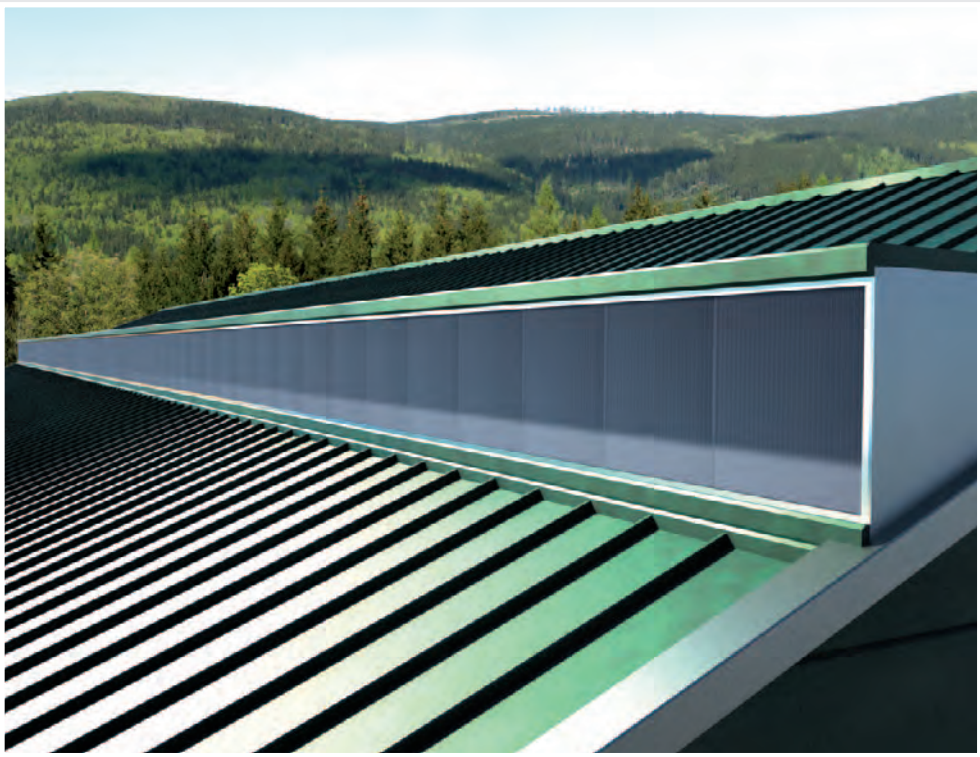
arcoPlus®625 is a modular system of coextruded 5 walls polycarbonate panels with a thickness of 20mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®625 is not suitable for roofing applications.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

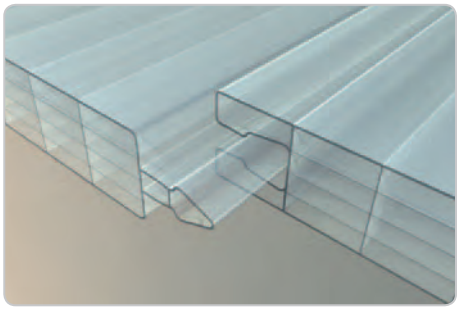
- Vertical windows



CONTINUOUS WINDOWS
Translucent continuous windows

ACCESSORIES

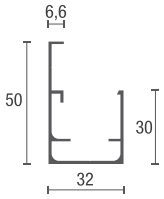
The system includes a complete range of aluminium profiles for installing the panels. The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.



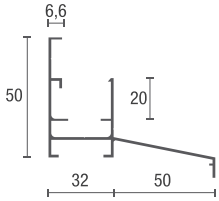
DETAIL JOINT
Detail joint male-female

METAL PROFILES

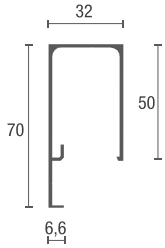
code 4062
Base AL profile



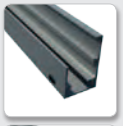
code 4064
Base AL profile
with eave



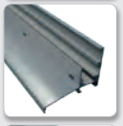
code 4061
Upper and side
AL profile



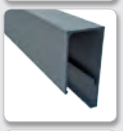
ACCESSORIES



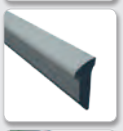
4062
Base AL profile



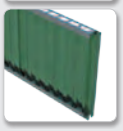
4064
Base AL profile
with eave



4061
Upper and side
AL profile



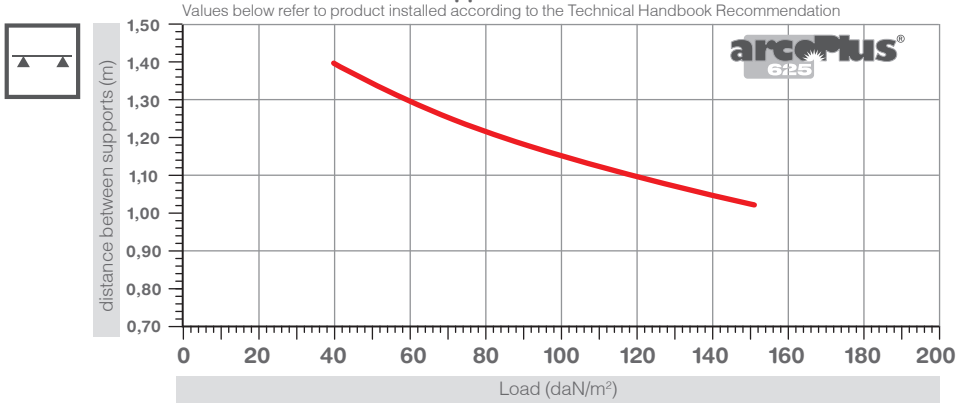
1169/B
Slip Coat Gasket



4327
Additional sealing tape

LOAD RESISTANCE

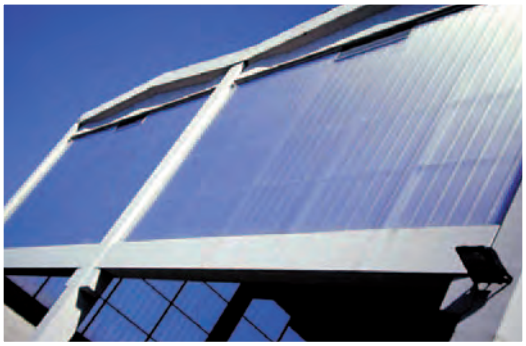
Maximum loads on two supports
Values below refer to product installed according to the Technical Handbook Recommendation



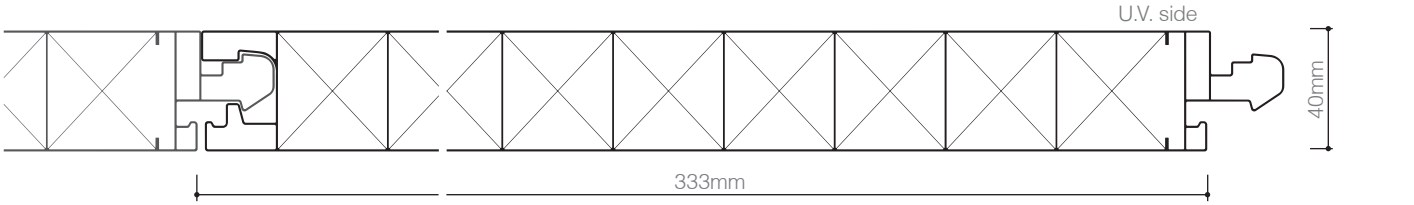
EASY AND LOW-COST INSTALLATION

The 20mm-thick, 5 walls structure with tongue and groove connection gives the panels remarkable flexural strength.
It also allows the panels to be installed without the use of metal reinforcement frames, thus eliminating heat loss due to the thermal bridges caused by these structures.
The modular connection ensures a watertight seal for glazing with an inclination of up to 30°.

arcoPlus® 344x



PROFILE



Modular system of multiwall UV protected polycarbonate for windows and translucent roofing applications

PRODUCTION STANDARDS

thickness	40mm
structure	4 walls
effective modular width	333mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,9 W/m²K
Acoustic insulation	19 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®344x is a modular system used in the residential and industrial building sectors. It is suitable for use in new buildings and for renovation and maintenance projects. The system consists of coextruded 4 walls polycarbonate panels with a thickness of 40mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.

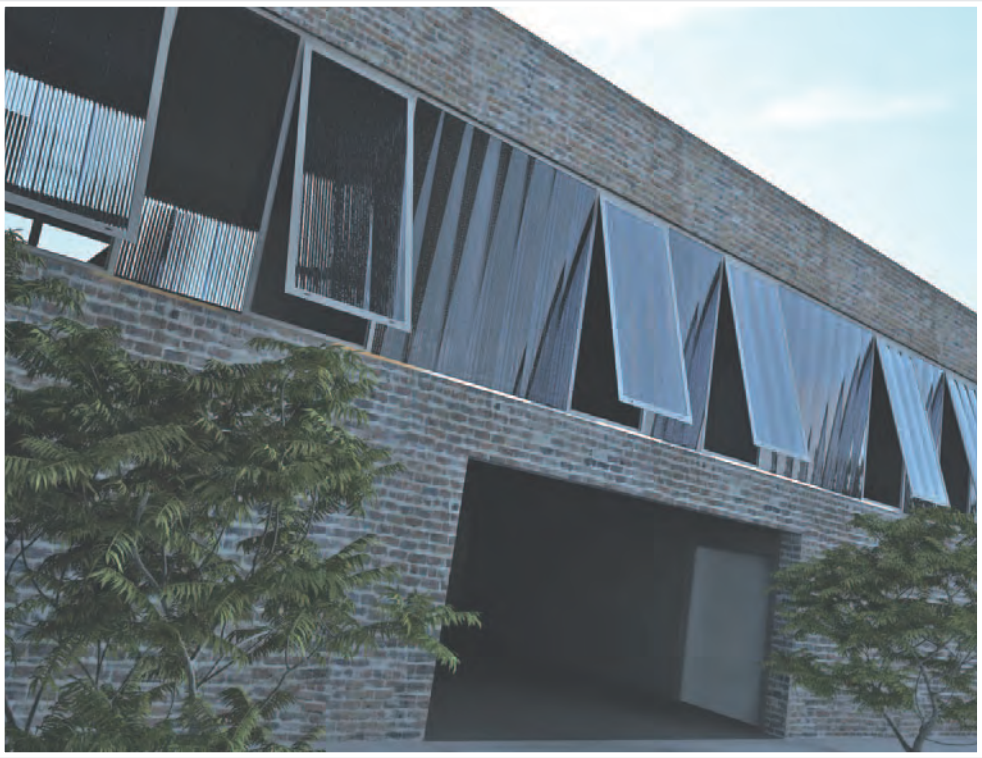
arcoPlus®344x can be used for roofing applications with a minimum slope of 7%.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- High load resistance

APPLICATIONS

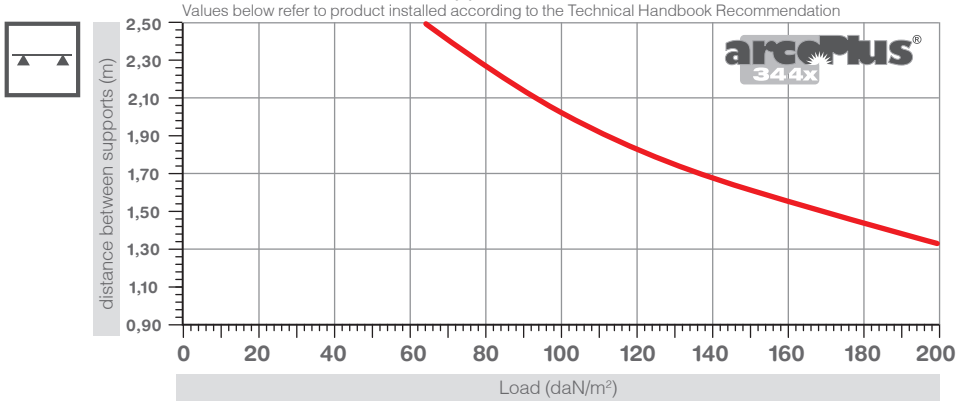
- Vertical windows
- Roofing



LOAD RESISTANCE

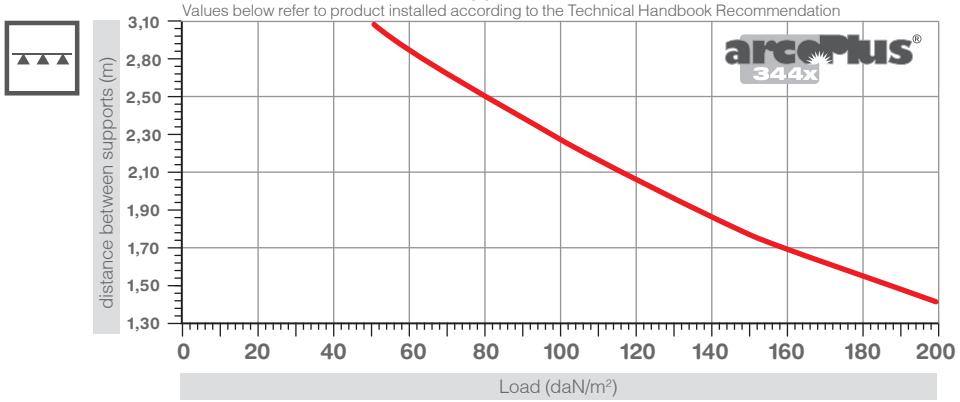
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



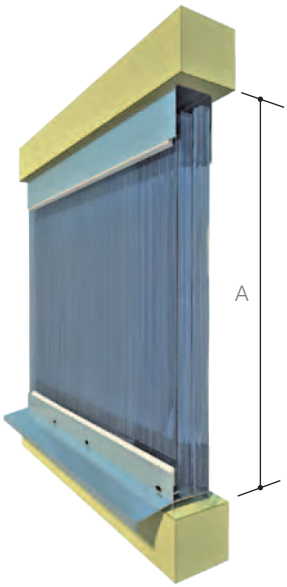
EASY AND LOW-COST INSTALLATION

The 40mm-thick, 4 walls design with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames (continuous windows), thus eliminating heat loss due to the thermal bridges caused by these structures (discontinuous windows).

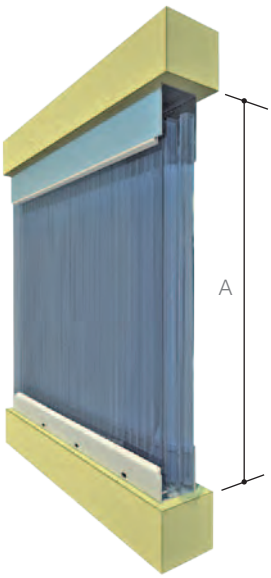
For installations exceeding 2.2m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed.

This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion (see load resistance graph).

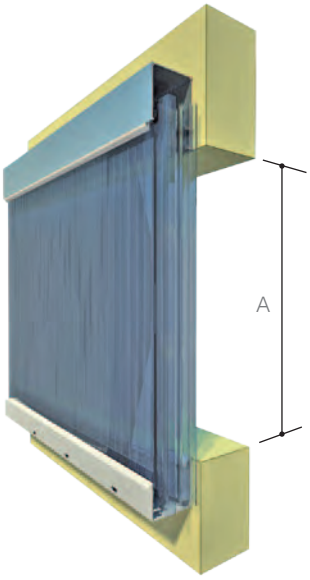
CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)



WITH EAVE
LP = A - 50 mm
(base profile without TT)
LP = A - 65 mm
(base profile with TT)
A = opening measure



WITHOUT EAVE
LP = A - 45 mm
(base profile without TT)
LP = A - 60 mm
(base profile with TT)
A = opening measure



OUTSIDE OF THE BUILDING
LP = A + 95 mm
(profile without TT)
A = opening measure

TRANSLUCENT CURTAIN WALLS
Realization vertical translucent curtain walls

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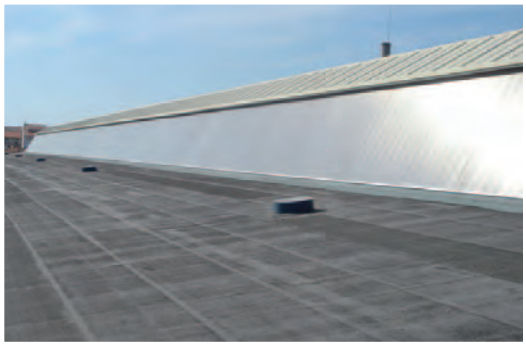
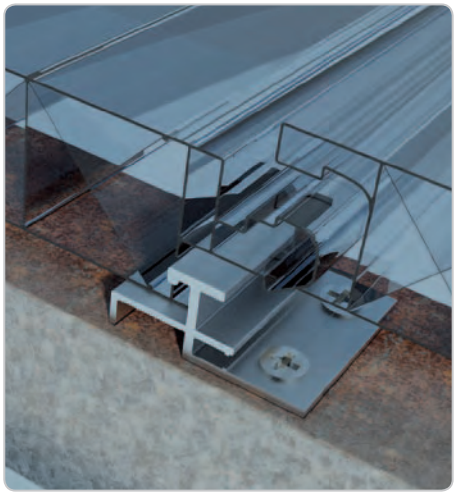


ACCESSORIES

In addition to a complete range of aluminium profiles (also available as thermally insulated) for installing the panels, the system also includes opening windows (manually operated or motorised) to ventilate the building (see opening systems on page 70).
The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.

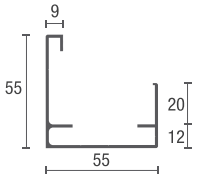


INSERTION OF PLATE
Insertion of aluminium plates for anchorage to existing structures.

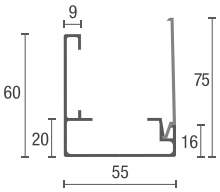
BASE PROFILE
Detail of curtain wall, insertion in base profile.

METAL PROFILES

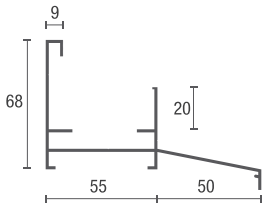
code 4047
Base AL profile



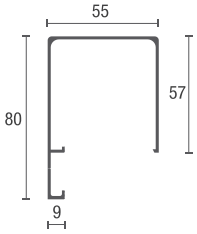
code 4140
Base AL profile
with frontal opening



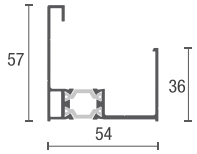
code 4046
Base AL profile
with eave



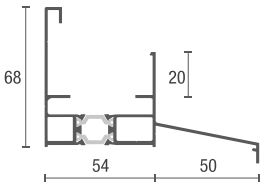
code 4045
Upper and side
AL profile



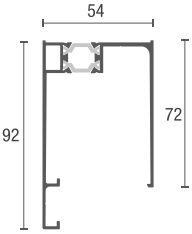
code 4587
Base profile TT
in AL



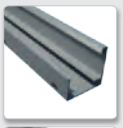
code 4590
Base profile TT
with eave in AL



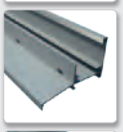
code4585
Upper and side
profile TT in AL



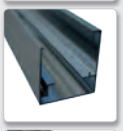
ACCESSORIES



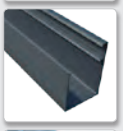
4047
Base AL profile



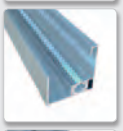
4046
Base AL profile
with eave



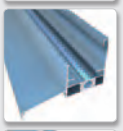
4140
Base AL profile
with frontal opening



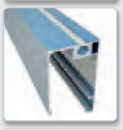
4045
Upper and side
AL profile



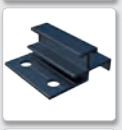
4587
Base profile TT
in AL



4590
Base profile TT
with eave in AL

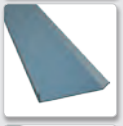


4585
Upper and side profile
TT in AL

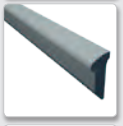


4050
Aluminium bracket

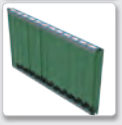
4052
Inox bracket



4312
Eclisse



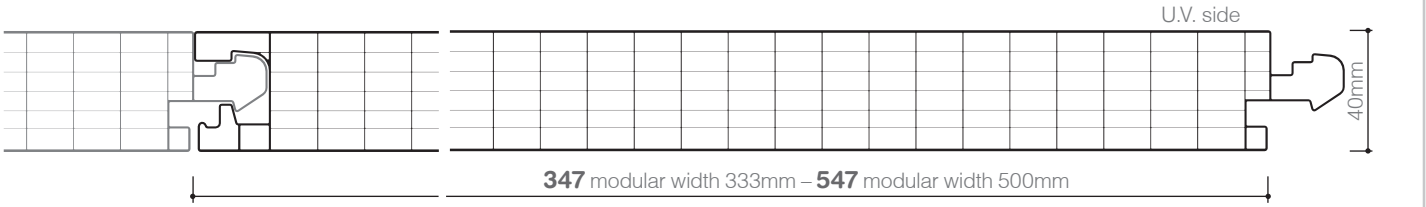
1169/B
Slip Coat Gasket



4108
Additional sealing tape

arcoPlus®
347 | 333mm
547 | 500mm

PROFILE



Modular system of multiwall UV protected polycarbonate for windows and translucent roofing applications

Caleido
LIGHT MANAGEMENT

IR AR
PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	40mm
structure	7 walls
modular width	333mm (347)–500mm (547)
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,1 W/m²K
Acoustic insulation	22 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

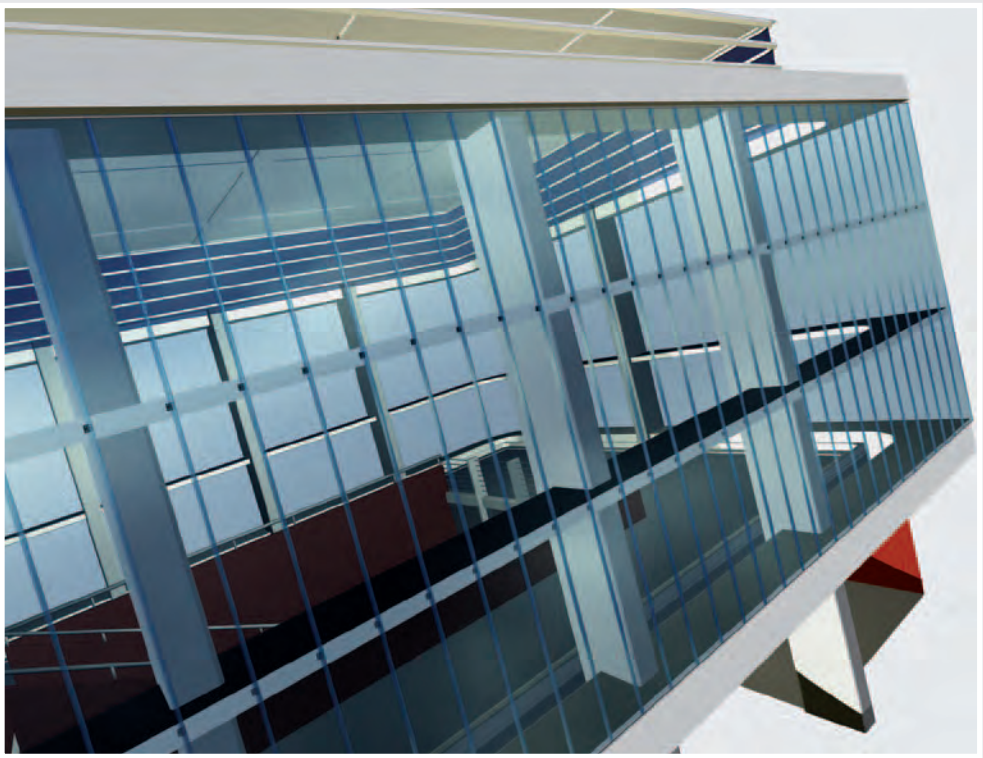
arcoPlus®547 is a modular system of coextruded 7 walls polycarbonate panels with a thickness of 40mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®547 can be used for roofing applications with a minimum slope of 7%.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- High load resistance

APPLICATIONS

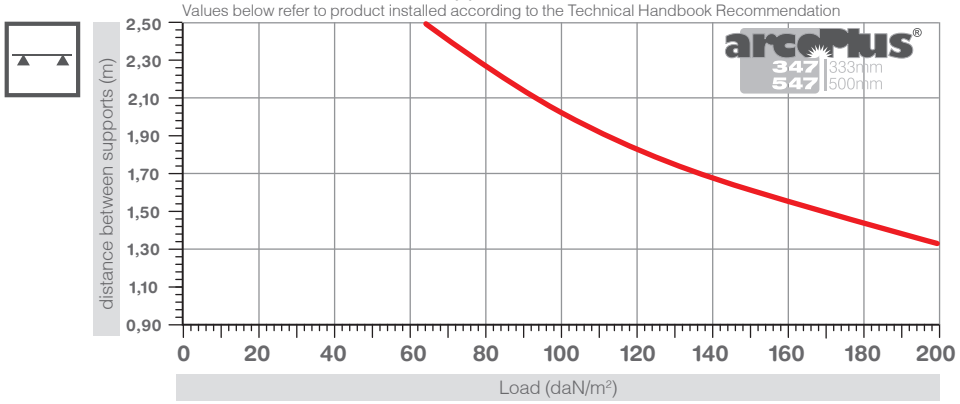
- Vertical windows
- Roofing



LOAD RESISTANCE

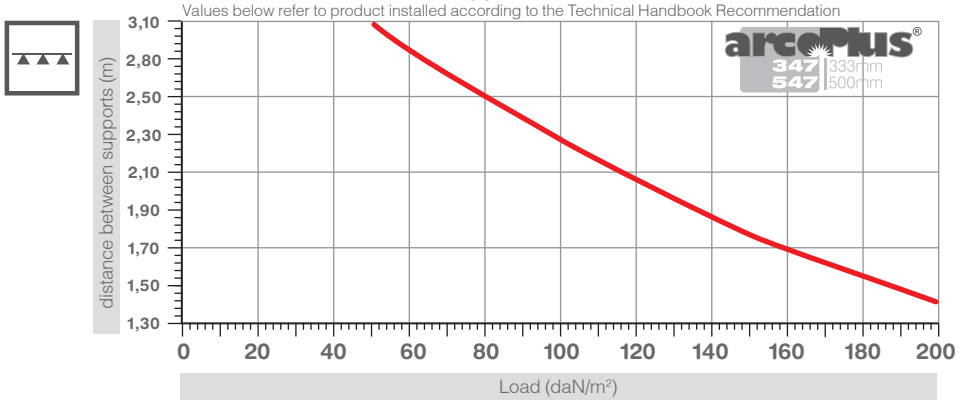
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

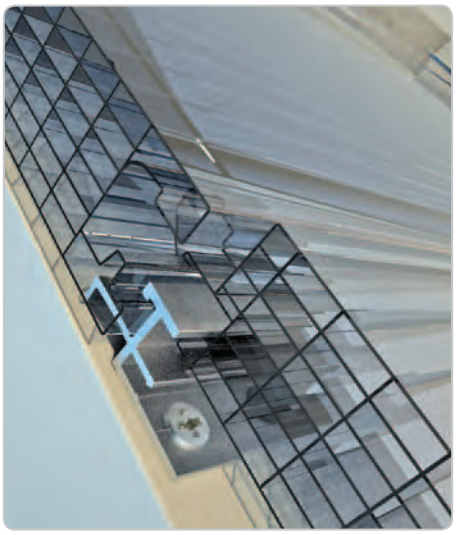
Values below refer to product installed according to the Technical Handbook Recommendation



EASY AND LOW-COST INSTALLATION

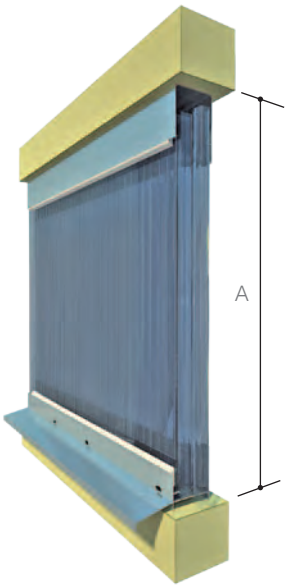
The 40mm-thick, 7 walls design with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames (continuous glazing), thus eliminating heat loss due to the thermal bridges caused by these structures (discontinuous glazing).

For installations exceeding 2.2m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed. This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion (see load resistance graph).

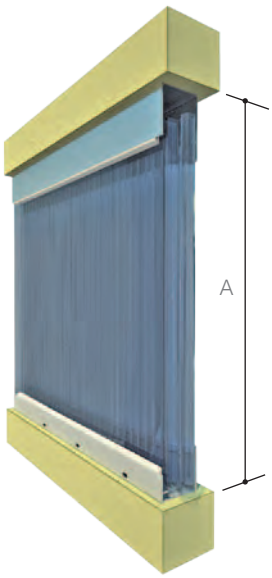


INSERTION OF PLATE
Insertion of aluminium plates for anchorage to existing structures.

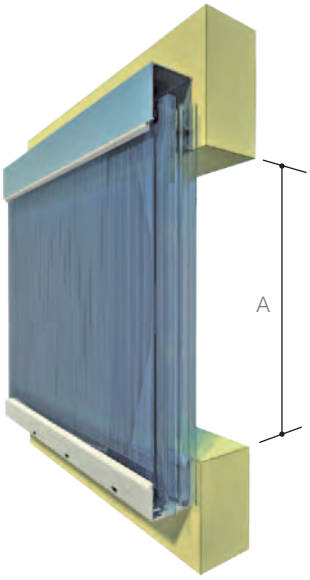
CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)



WITH EAVE
LP = A - 50 mm
(base profile without TT)
LP = A - 65 mm
(base profile with TT)
A = opening measure



WITHOUT EAVE
LP = A - 45 mm
(base profile without TT)
LP = A - 60 mm
(base profile with TT)
A = opening measure



OUTSIDE OF THE BUILDING
LP = A + 95 mm
A = opening measure

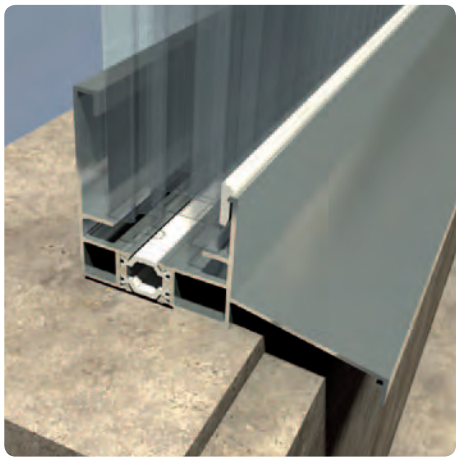
TRANSLUCENT CURTAIN WALLS
Realization vertical translucent curtain walls

info@gallina.it

ACCESSORIES

In addition to a complete range of aluminium profiles (also available as thermally insulated) for installing the panels, the system also includes opening windows (manually operated or motorised) to ventilate the building (see opening systems on page 70).
The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.

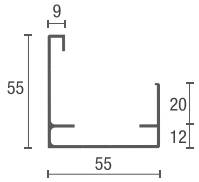
SIDE PROFILE
Detail side profile TT in AL



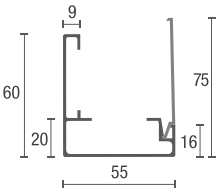
BASE PROFILE WITH TT
Detail base profile TT with eave in AL

METAL PROFILES

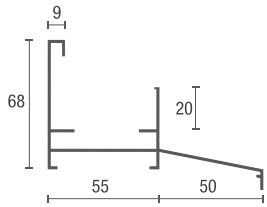
code 4047
Base AL profile



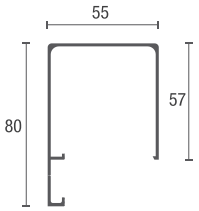
code 4140
Base AL profile
with frontal opening



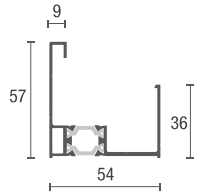
code 4046
Base AL profile
with eave



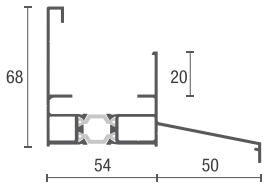
code 4045
Upper and side
AL profile



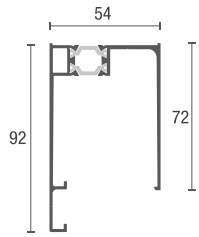
code 4587
Base profile TT
in AL



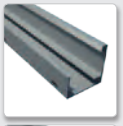
code 4590
Base profile TT
with eave in AL



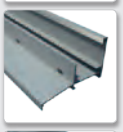
code4585
Upper and side
profile TT in AL



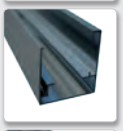
ACCESSORIES



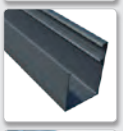
4047
Base AL profile



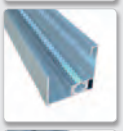
4046
Base AL profile
with eave



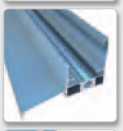
4140
Base AL profile
with frontal opening



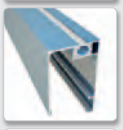
4045
Upper and side
AL profile



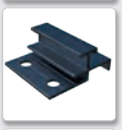
4587
Base profile TT
in AL



4590
Base profile TT
with eave in AL

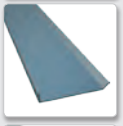


4585
Upper and side profile
TT in AL

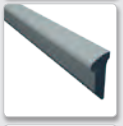


4050
Aluminium bracket

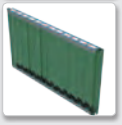
4052
Inox bracket



4312
Eclisse



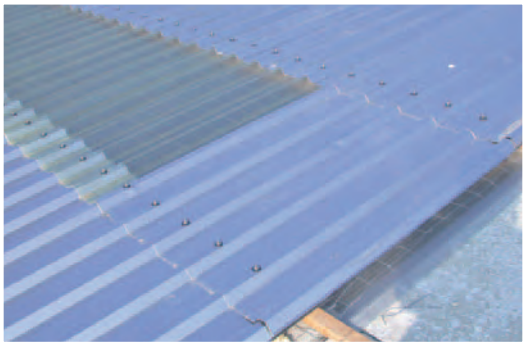
1169/B
Slip Coat Gasket



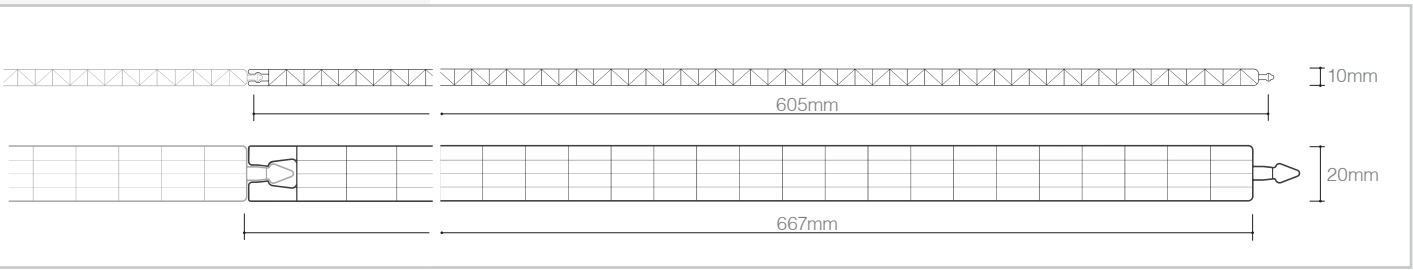
4108
Additional sealing tape

2.1 INTERLOCKING SYSTEMS

Velario®
613 10mm
20-5 20mm



PROFILE



Modular system of multiwall polycarbonate for false ceilings and partitions WITHOUT UV PROTECTION

PRODUCTION STANDARDS

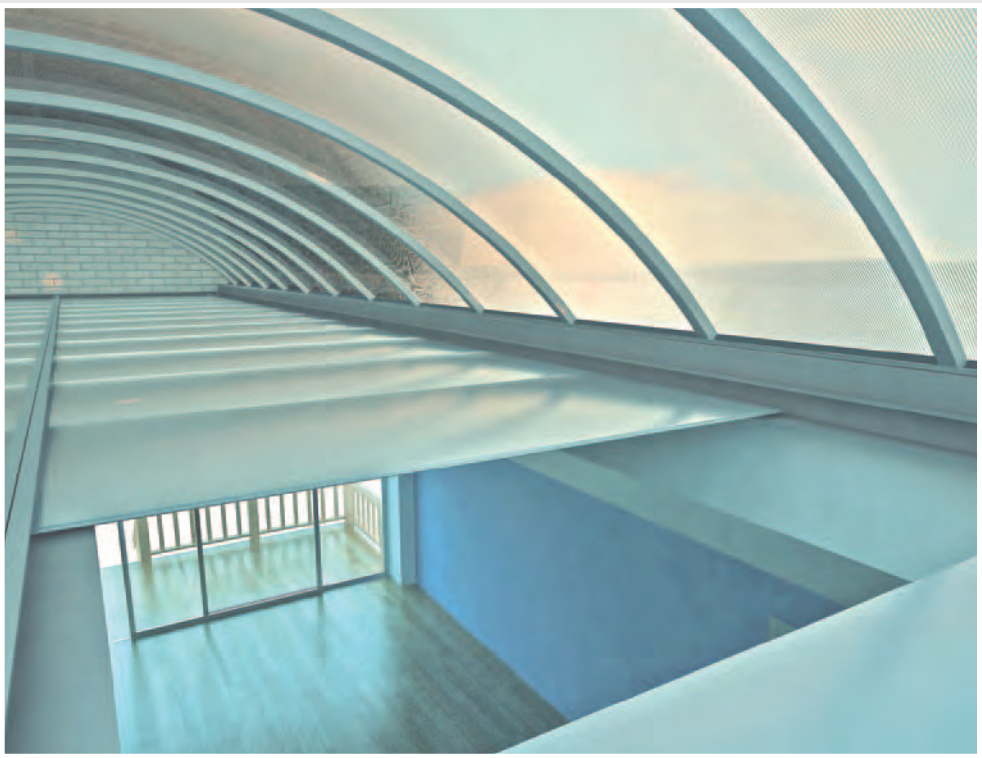
	Velario®613	Velario®20-5
thickness	10mm	20mm
structure	3 walls	5 walls
effective modular width	605mm	667mm
panel length	no limit	no limit

TECHNICAL FEATURES

	Velario®613	Velario®20-5
Thermal insulation	2,7 W/m²K	1,7 W/m²K
Acoustic insulation	16 dB	16 dB
Linear thermal expansion	0,065mm/m°C	0,065mm/m°C
Temperature range	-40°C +120 °C	-40°C +120 °C
Fire reaction EN 13501	EuroClass B-s1,d0	EuroClass B-s1,d0

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Heat insulation
- Self-supporting



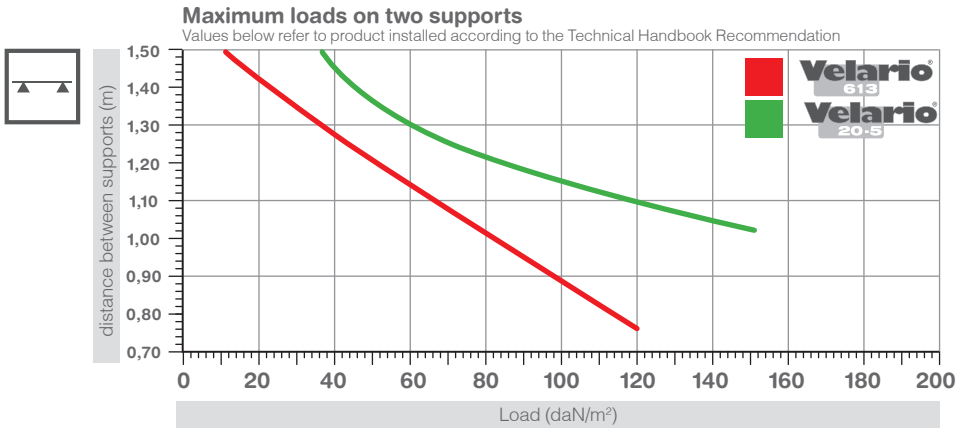
APPLICATIONS

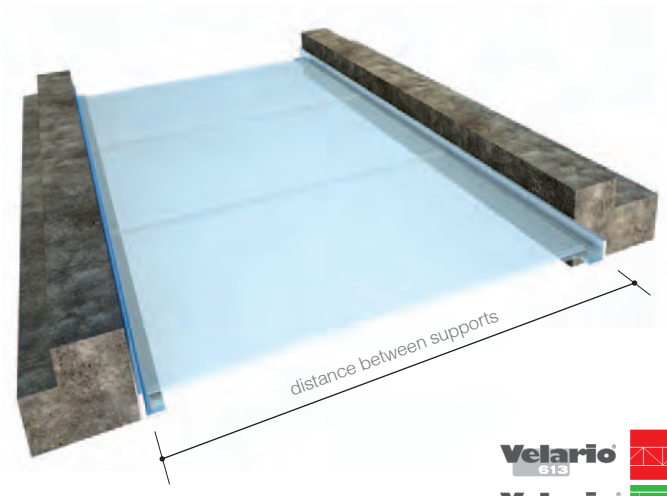
- Room partitions
- False ceilings

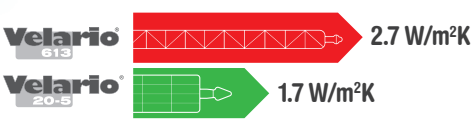
DESCRIPTION

Velario®613 and Velario®20-5, are modulars systems used in residential and industrial buildings, for new buildings as well as for renovation and maintenance operations.
It consists of polycarbonate panels with male-female connection.
They are ideal for all those cases where a thermal insulation is required with a rapid and simple installation.

LOAD RESISTANCE







THE CHOICE OF PROFILE

The indicated diagram shows the maximum recommended distance based on the type of profile used. The choice of the system to be used is therefore in function of the distance between the support and the value of insulation requested.

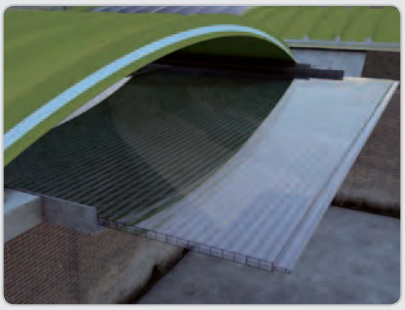
To avoid soiling the inside of the cells, it is recommended to request the product taped or thermowelded at the ends.

ACCESSORIES

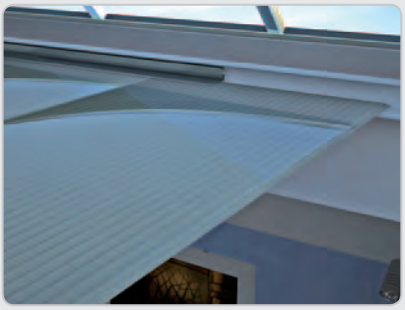
code 4226
Thermowelding

cod. 4073 (Velario613)
Aluminium tape.

cod. 4327 (Velario20-5)
Aluminium tape.



VELARIO
Detail Velario metal roofing



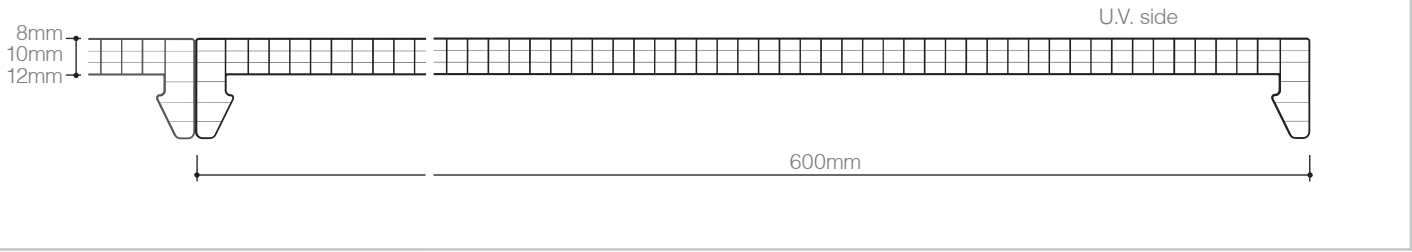
FALSE CEILING
detail anchorage panels

arcoPlus® 613

Modular system of UV protected multiwall polycarbonate for vertical window applications

arcoPlus®
684 8mm
6104 10mm
6124 12mm

PROFILE



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing applications

Caleido
LIGHT MANAGEMENT

IR AR
PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	8-10-12mm
structure	4 walls
effective modular width	600mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,3 - 3,0 - 2,7 W/m²K
Acoustic insulation	18 dB (th.8-10mm) 19dB (th.12mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®684-6104-6124 are three modular systems consisting of co-extruded 4 walls polycarbonate panels with thicknesses of 8-10 and 12mm, inserted in plastic-coated steel or aluminium profiles using a click-on system.
Used for vertical windows, flat roofing (min. slope 5%) and curved roofing (minimum radius 2.0m).

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

APPLICATIONS

- Vertical windows
- Roofing
- Curved roofing

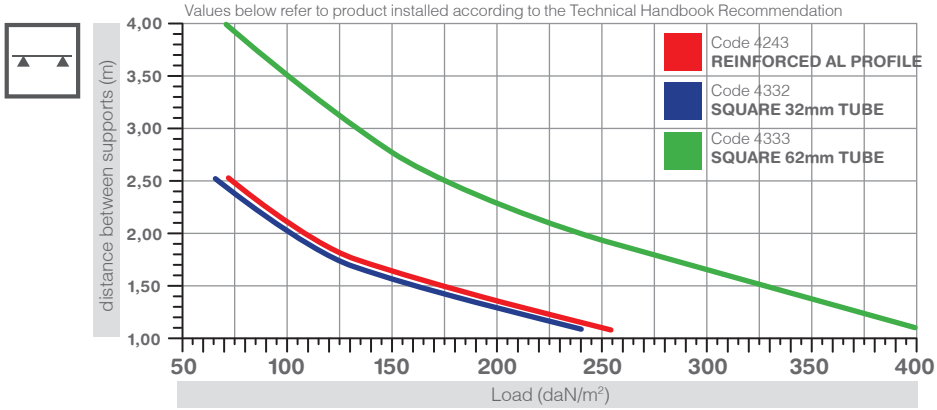
CONTINUOUS ROOFING
Model of tunel with
reinforced aluminium profil

LOAD RESISTANCE

arcoPlus®
684 8mm
6104 10mm
6124 12mm

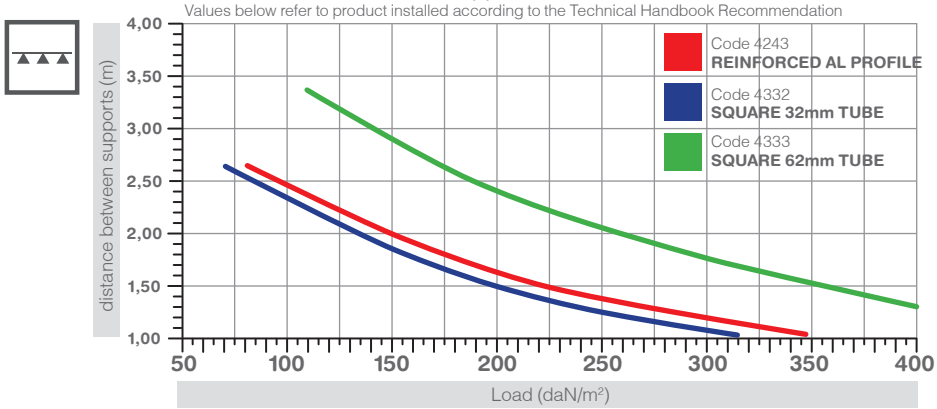
Maximum loads on two supports

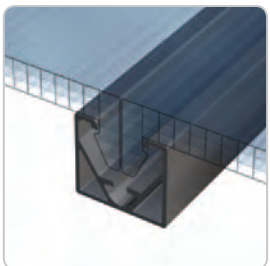
Values below refer to product installed according to the Technical Handbook Recommendation



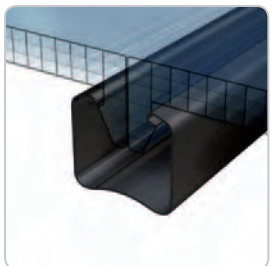
Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation

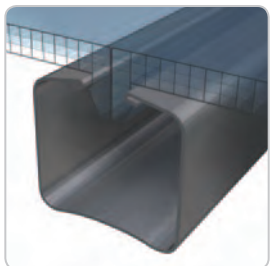




SYSTEM WITH REINFORCED ALUMINIUM PROFILE



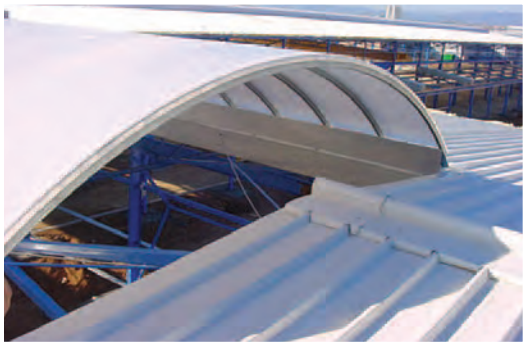
SYSTEM WITH SQUARE 32mm TUBE



SYSTEM WITH SQUARE 62mm TUBE

FLAT SELF-SUPPORTING SYSTEM

The arcoPlus®684-6104-6124 systems can be used for vertical walls and flat roofing applications. The panels are inserted on open joint metal tubes using a click-on system. This ensures the necessary wind and snow load resistance properties (see load resistance tables).

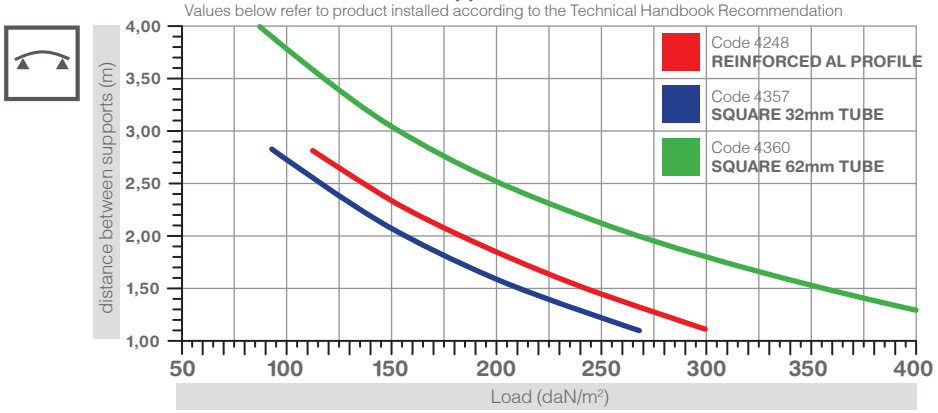


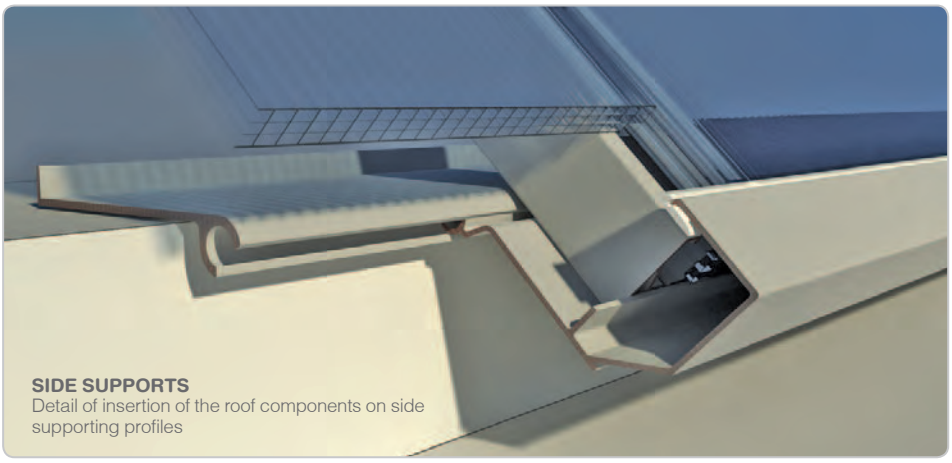
CURVED SYSTEM LOAD RESISTANCE

arcoPlus®
684 8mm
6104 10mm
6124 12mm

Maximum loads on two supports R.4.000mm

Values below refer to product installed according to the Technical Handbook Recommendation



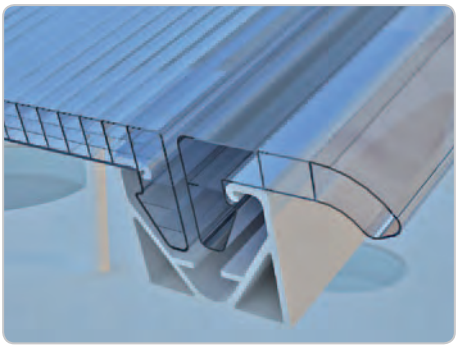


SIDE SUPPORTS
Detail of insertion of the roof components on side supporting profiles

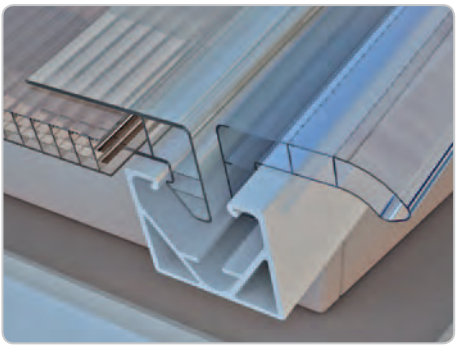
CURVED SELF-SUPPORTING SYSTEM

The metal reinforcement frames guarantee the load capacity of the entire system, while the polycarbonate staves create a continuous curtain walling effect. Special adjustable supports guarantee a complete seal.

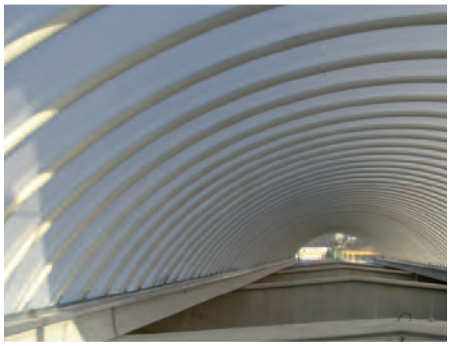
Different types of reinforcement frames are available to guarantee the required load and wind resistance properties according to the relative load resistance values and conditions of use.
Minimum bend radius R.2.000mm



START PROFILE
Detail of insertion of start profile on roof.



END PROFILE
Detail of insertion of section-breaker profile to complete roofing.

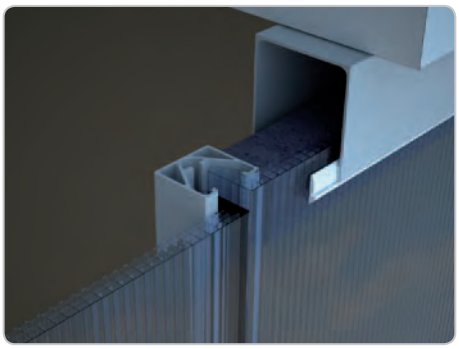


EASY AND LOW-COST INSTALLATION

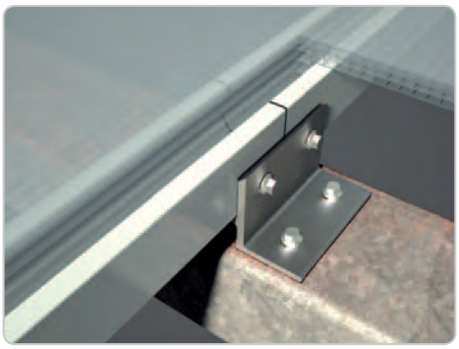
The 4 walls design with click-on connection to open joint tubes gives the panel remarkable flexural strength and is suitable for creating vertical walls and large areas of self-supporting roofing without the use of section-breaker profiles.

ACCESSORIES

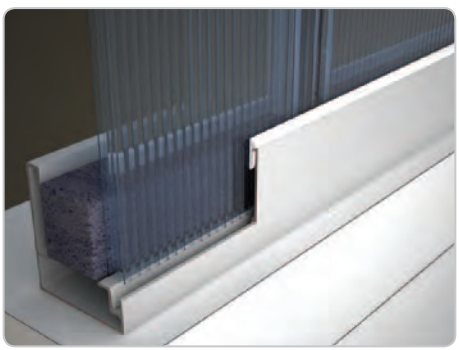
arcoPlus® includes a complete range of accessories that guarantee a perfectly watertight seal and significant wind load resistance.



DETAIL OF UPPER PROFILE
Upper profile with gasket and sealing pad.



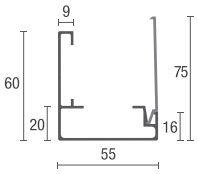
DETAIL FIXING OF ECLYPSE
Detail of the union of the profiles in aluminium with eclypse in aluminium



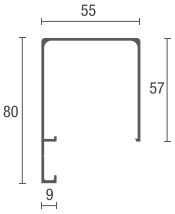
DETAIL OF BASE
Insertion of curtain wall profiles on removable base with front panel.

METAL PROFILES

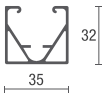
code 4140
Base AL profile
with frontal opening



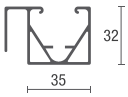
code 4045
Upper and side
AL profile



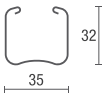
code 4243 (straight)
code 4248 (curved)
Reinforced AL profile



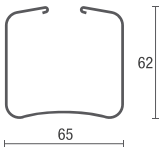
code 4244 (straight)
code 4249 (curved)
Gabled AL profile



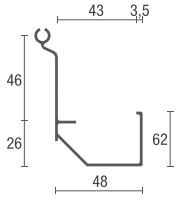
code 4332 (straight)
code 4357 (curved)
Square 32mm tube



code 4333 (straight)
code 4360 (curved)
Square 62mm tube

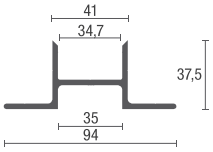


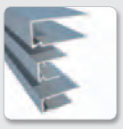
code 4245
U-shaped closing
support in AL



code 4252
closing
support in AL

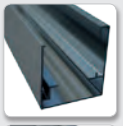
code 4260
Eclypse



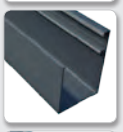


4665/600 th.8mm
4666/600 th.10mm
4667/600 th.12mm
Block cover AL profile

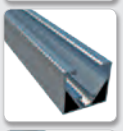
ACCESSORIES



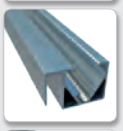
4140
Base AL profile
with frontal opening



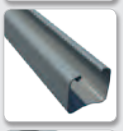
4045
Upper and side
AL profile



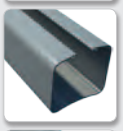
4243 (straight)
4248 (curved)
Reinforced AL profile



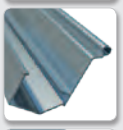
4244 (straight)
4249 (curved)
Gabled AL profile



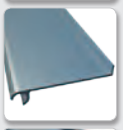
4332 (straight)
4357 (curved)
Square 32mm tube



4333 (straight)
4360 (curved)
Square 62mm tube

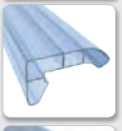


4245
U-shaped closing
support in AL



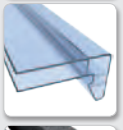
4252
closing
support in AL

4589
Profilo terminale
in AL



2147
Start profile 684-6104
in polycarbonate
th.8/10mm

2245
Start profile 6124
in polycarbonate
th.12mm



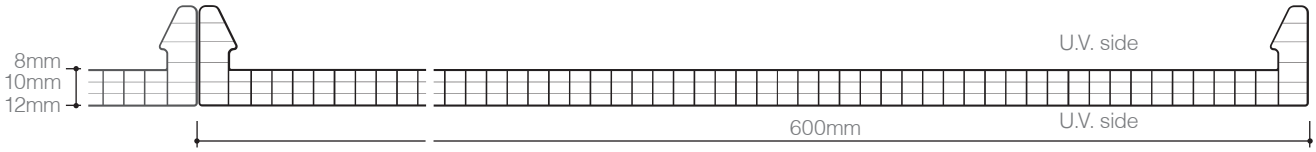
2148 th.8mm
2265 th.10mm
2250 th.12mm
End profile in PC

4213 dim. 40x35x580
4221 dim. 70x40x580
Pad PE-LD

4260
Eclypse

arcoPlus® Reversò 684|6104|6124
8mm 10mm 12mm

PROFILE



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

Caleido
LIGHT MANAGEMENT

IR AR
PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	8-10-12mm
structure	4 walls
effective modular width	600mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,3 - 3,0 - 2,7 W/m²K
Acoustic insulation	18 dB (th.8-10mm) 19dB (th.12mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

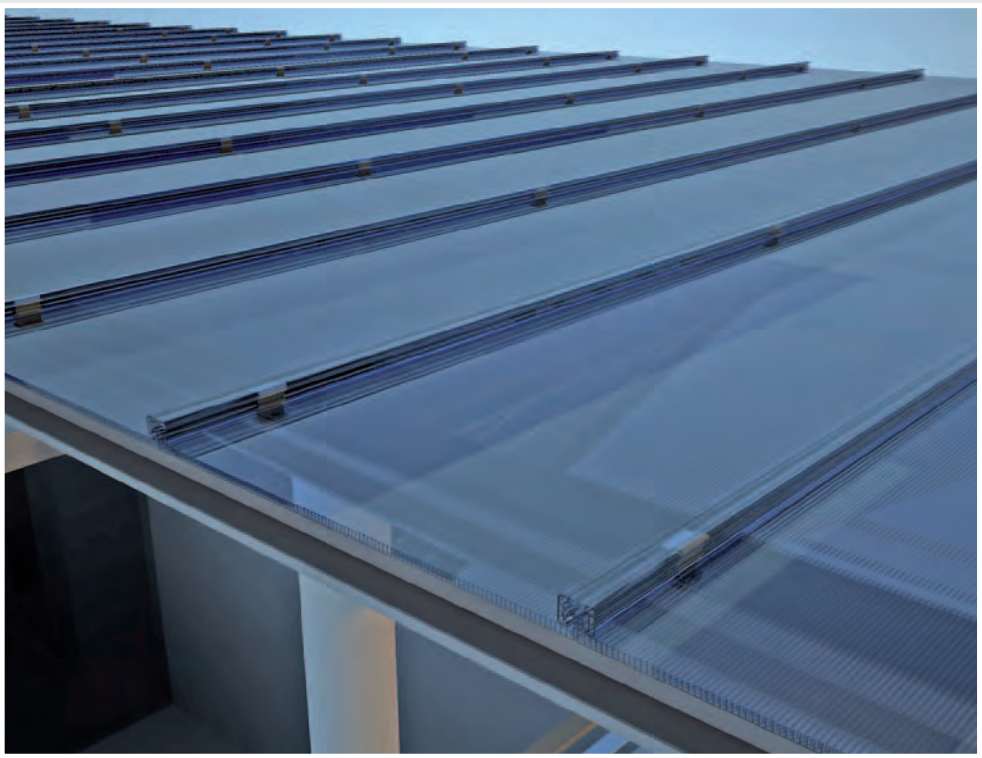
arcoPlus®684-6104-6124 reversò are three modular systems consisting of 4 walls polycarbonate panels with UV protection on two sides and thicknesses of 8-10-12mm. They are anchored to the existing structures using specific anchor brackets. The panels are joined together using a protected polycarbonate or aluminium cover plate profile assembled using a click-on system to guarantee a perfectly watertight seal.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min=2,5m

APPLICATIONS

- Roofing
- Curved roofing

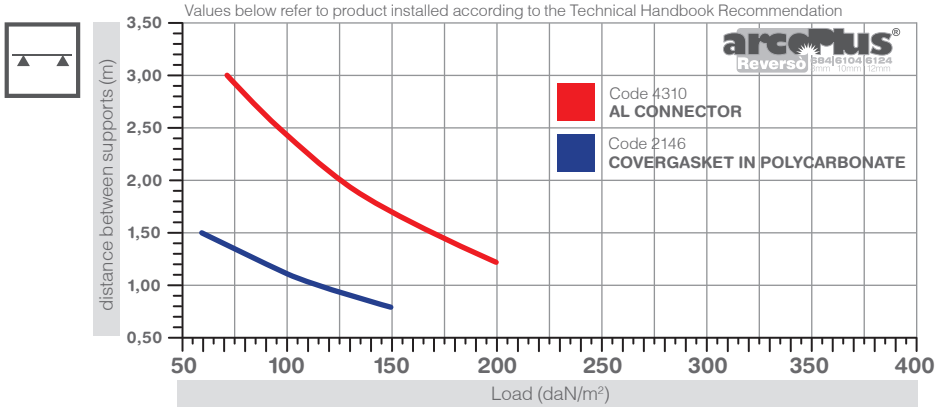


CONTINUOUS ROOFING
Example of roofing with polycarbonate cover plate.

LOAD RESISTANCE

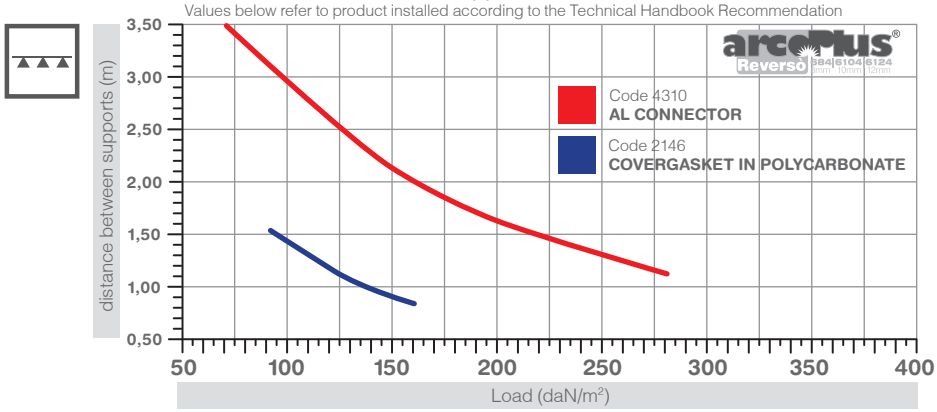
Maximum loads on two supports

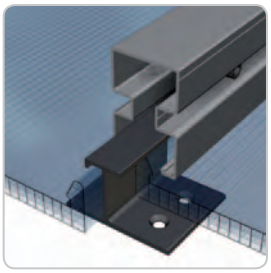
Values below refer to product installed according to the Technical Handbook Recommendation



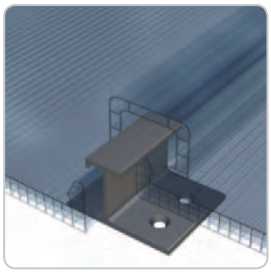
Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation





SYSTEM WITH ALUMINIUM CONNECTOR CODE 4310



SYSTEM WITH POLYCARBONATE COVERGASKET - CODE2146

EASY AND LOW-COST INSTALLATION

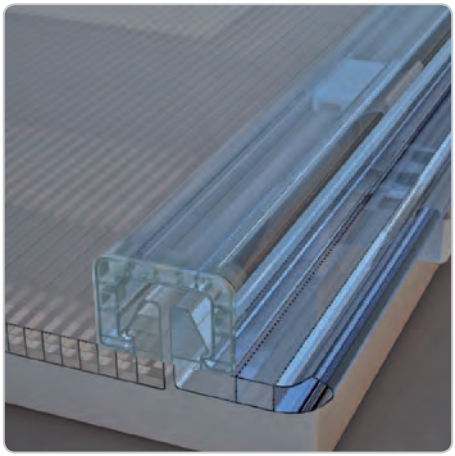
To ensure compliance with snow load and negative wind load resistance requirements, anchor brackets should be fitted for each purlin.

The polycarbonate panels are fastened to the underlying structure using specific brackets, which must be anchored to the purlins using suitable self-drilling/self-tapping screws (on metal structures) and tap bolts (for wooden structures). These screws and bolts are not supplied.

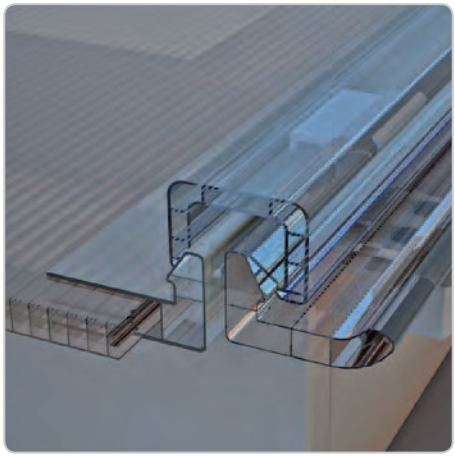
Different connector profiles can be used, depending on the required load specifications.

COMPLETE SYSTEM FOR ROOFING

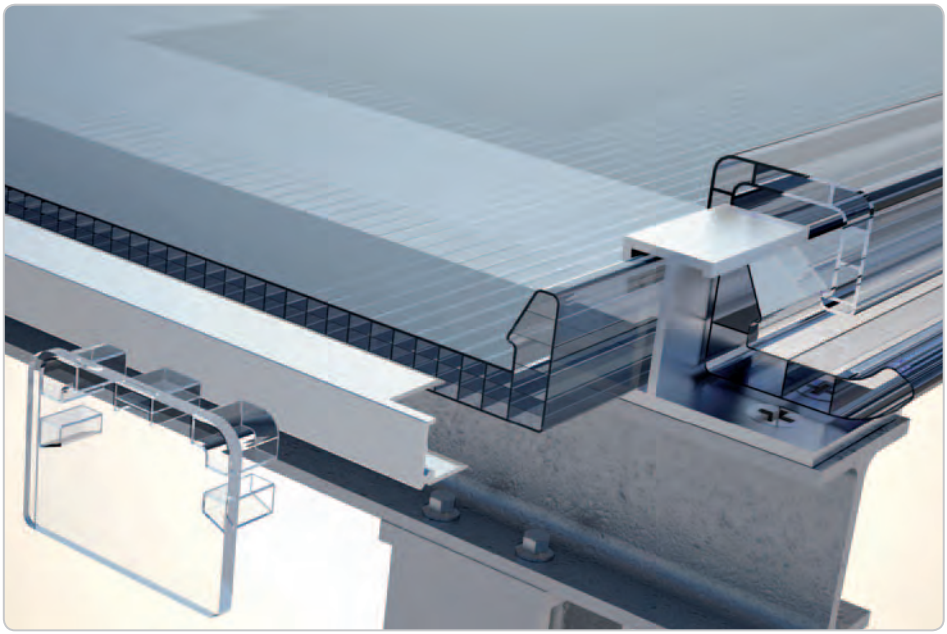
The modular polycarbonate panels can be used to create flat or curved roofing. They are fixed to the supporting structures using specific aluminium brackets.
Depending on the load capacity values required, or the distance between the purlins of the underlying structures, either polycarbonate cover plates can be used or, for greater strength, aluminium connectors.



START PROFILE
Detail of insertion of start profile on roof.



END PROFILE
Detail of insertion of section-breaker profile to complete roofing.



DETAIL OF COMPLETE SYSTEM
Start profile with panel, cover plate, plate and air cell cover profiles.

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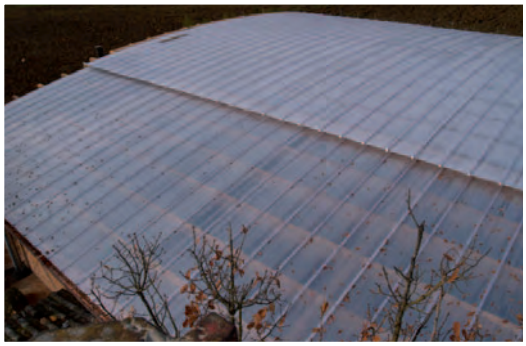
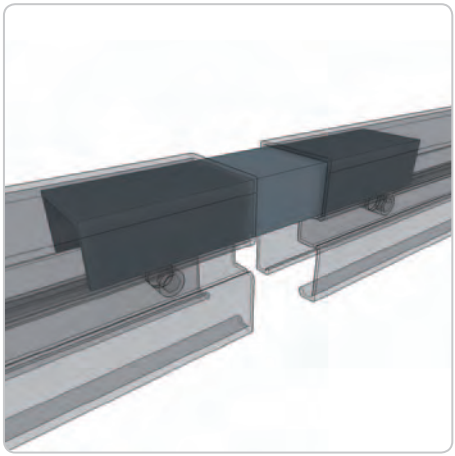
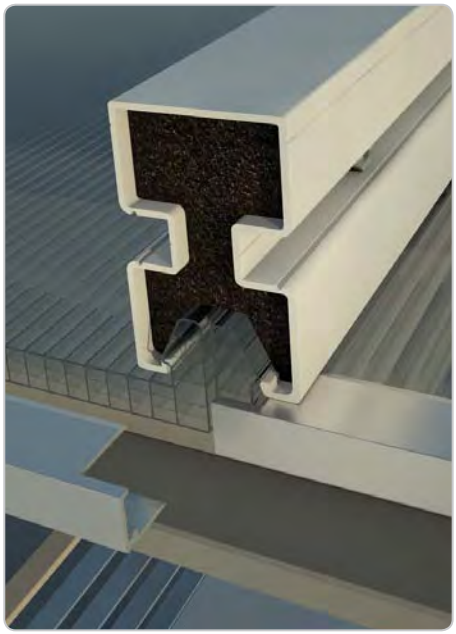


ACCESSORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation. For correct installation the ends of the air cells in the panels must be heat-sealed to prevent soiling on the inside.



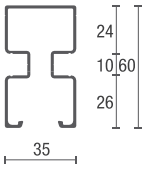
CONNECTOR JOINT
AL connector profiles with eclypse.



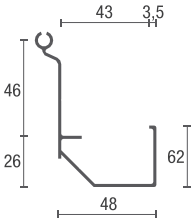
DETAIL OF CONNECTOR
Use of aluminium joint screwed down and end closed with PE-LD pad.

METAL PROFILES

code 4310
Connector AL
profile with screw



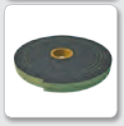
code 4245
U-shaped closing
support in AL



code 4252
Closing
support in AL

4213 dim. 40x35x580
4221 dim. 70x40x580
Pad PE-LD

4318
Pad PE-LD
for connector



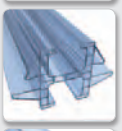
4329
Sealing tape PE-LD
4x15mm

4316 M6 nut
4315 M6 x 20 screw
Accessories for connector

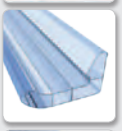
ACCESSORIES

4303
Covergasket
stopper

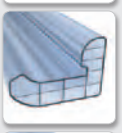
2146
Covergasket
in polycarbonate



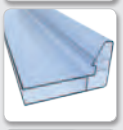
2282
Double connector
in polycarbonate



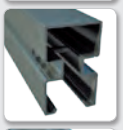
2147
Start profile 684-6104
in polycarbonate



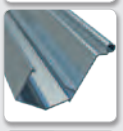
2245
Start profile 6124
in polycarbonate



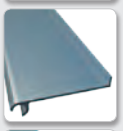
2148 th.8mm
2265 th.10mm
2250 th.12mm
End profile in PC



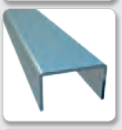
4310
Connector AL
profile with screw



4245
U-shaped closing
support in AL



4252
closing
support in AL

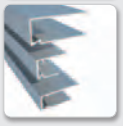


4319/200
AL eclisse
for connector

4326 th.8mm
4350 th.10mm
4355 th.12mm
AL plate

4264
Stainless steel plate
for vertical connection

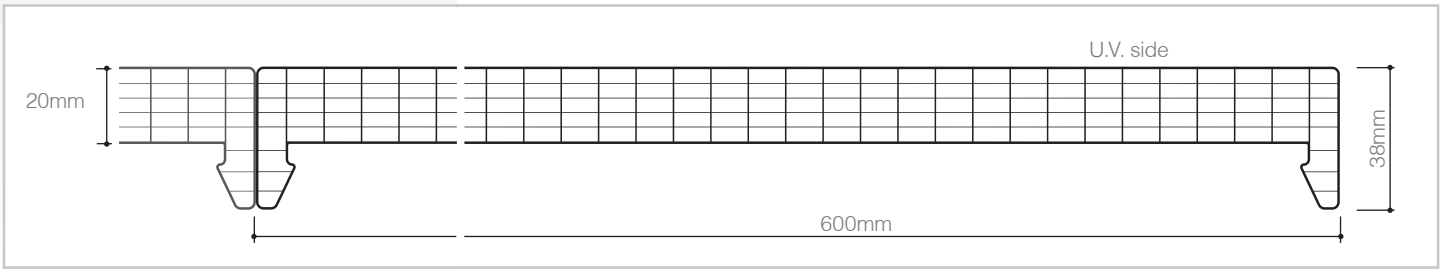
4138
Stainless steel plate
for flat connection
(th.8mm)



4675/600 th.8mm
4676/600 th.10mm
4677/600 th.12mm
Block cover AL profile

arcoPlus® 626

PROFILE



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing

Caleido
LIGHT MANAGEMENT

IR AR
PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	20mm
structure	6 walls
effective modular width	600mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,7 W/m²K
Acoustic insulation	20 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®626 is a modular system of co-extruded 6 walls polycarbonate panels with a thickness of 20mm, and 600mm module, assembled using a click-on system to plastic-coated steel or aluminium profiles.
Used for vertical glazing, flat roofing (min. slope 5%) and curved roofing (minimum radius 4m).

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

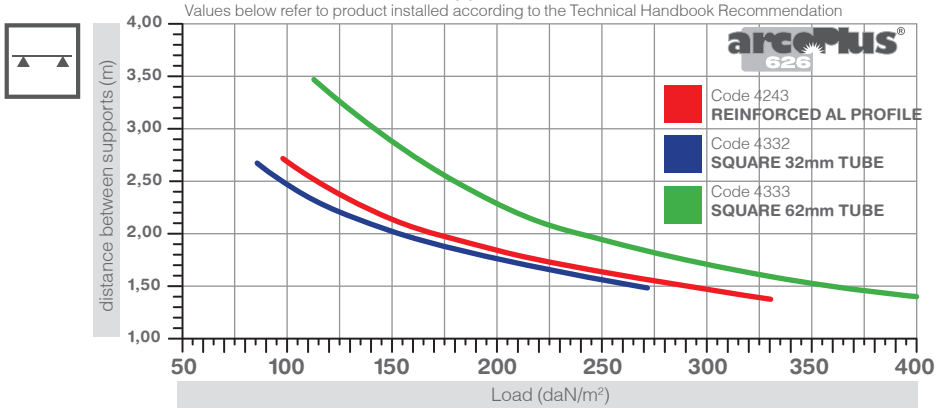
APPLICATIONS

- Vertical windows
- Roofing
- Curved roofing

LOAD RESISTANCE

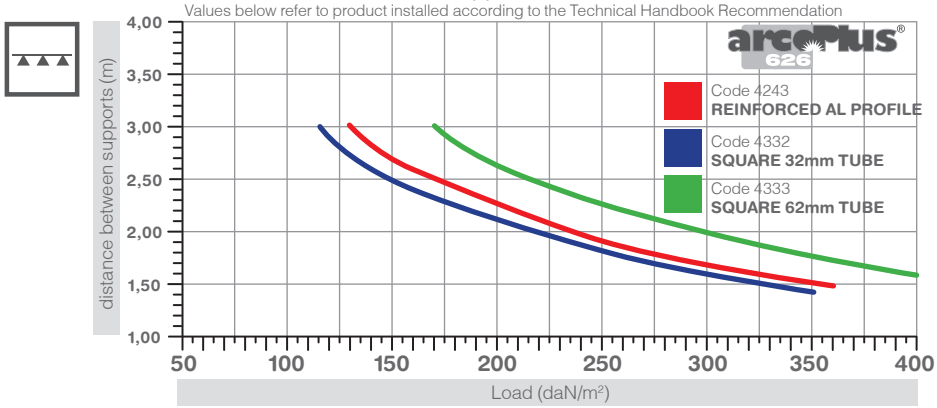
Maximum loads on two supports

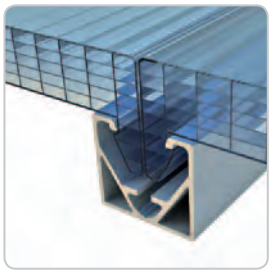
Values below refer to product installed according to the Technical Handbook Recommendation



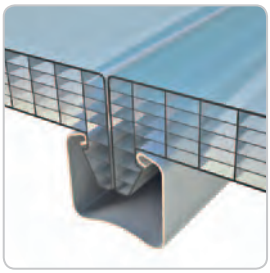
Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation

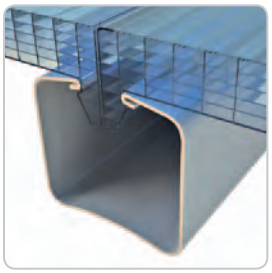




SYSTEM WITH REINFORCED ALUMINIUM PROFILE



SYSTEM WITH SQUARE 32mm TUBE



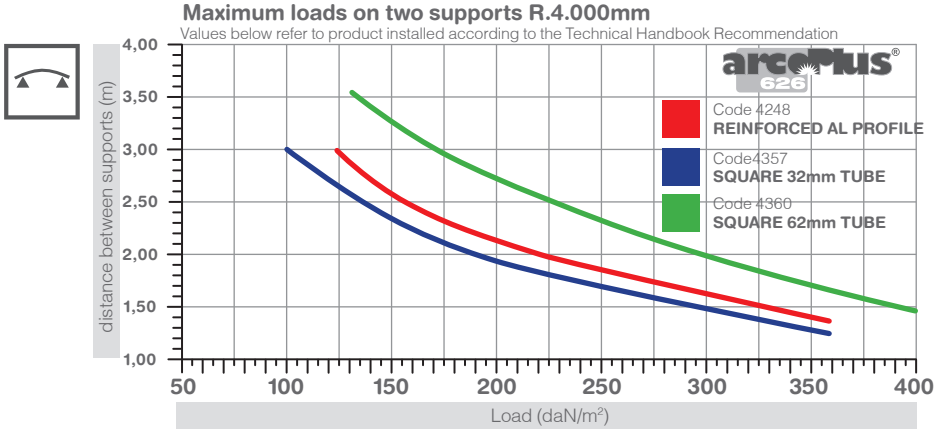
SYSTEM WITH SQUARE 62mm TUBE

EASY AND LOW-COST INSTALLATION

The 6 walls design with snap-on connection to open joint tubes gives the panel remarkable flexural strength. It is suitable for vertical curtain walls and large areas of self-supporting roofing without the use of section-breaker profiles.

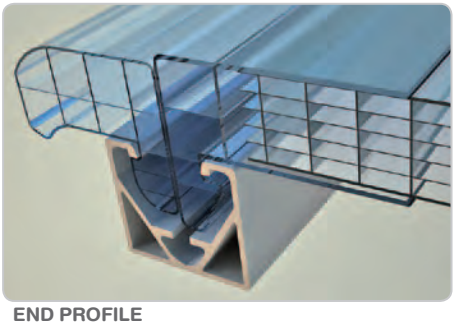
The snap-on connection and complete range of accessories and aluminium perimeter profiles combine to guarantee a perfectly watertight seal and considerable wind load resistance.

CURVED SYSTEM LOAD RESISTANCE

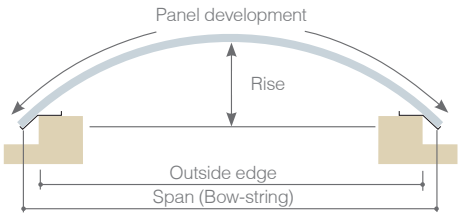


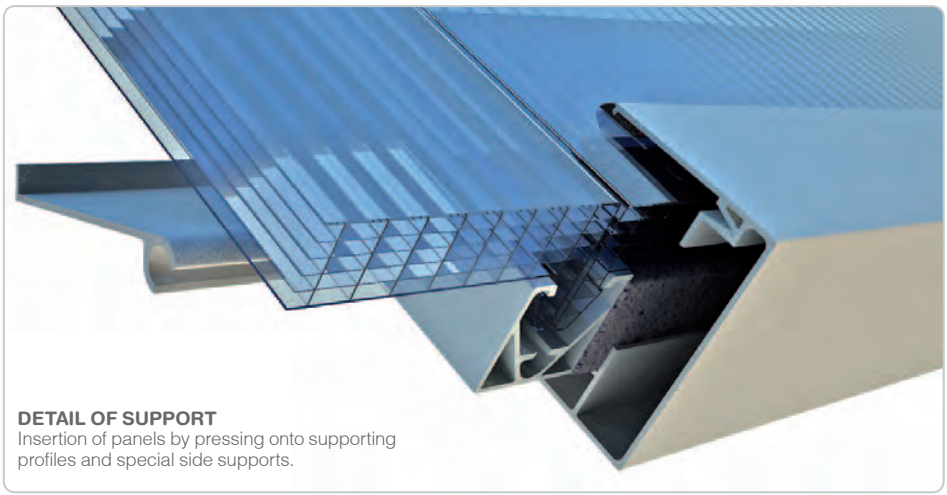
CURVED SELF-SUPPORTING SYSTEM

The metal reinforcement frames guarantee the load capacity of the entire system, while the polycarbonate staves create a continuous curtain walling effect.
Special adjustable supports guarantee a complete seal. Different types of reinforcement frames are available to guarantee the required load and wind resistance properties according to the relative load capacity values and conditions of use.



END PROFILE
Detail of insertion of section-breaker profile to complete roofing.





DETAIL OF SUPPORT
Insertion of panels by pressing onto supporting profiles and special side supports.

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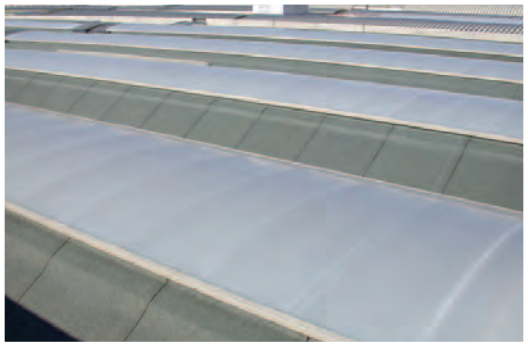
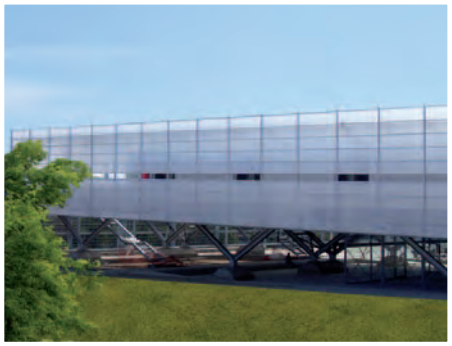
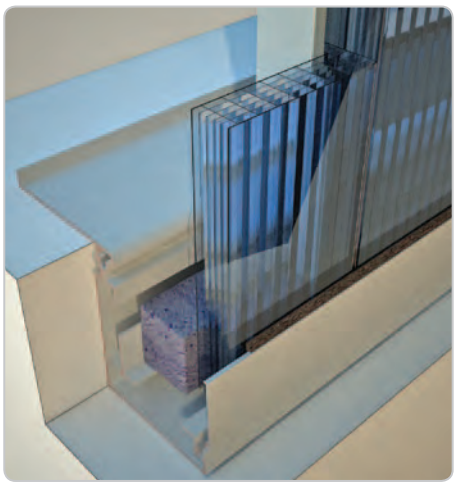


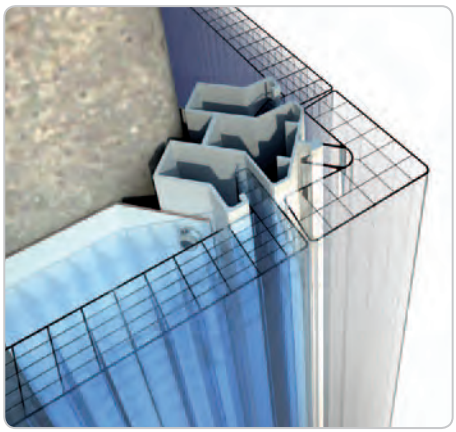


ACCESSORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation.
The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.



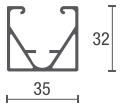
WALL SYSTEM
Construction of continuous transparent walls, with insertion on aluminium profile using a snap-on system.



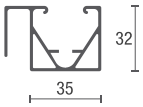
DETAIL CORNER
Click insertion of corner profiles in polycarbonate with aluminium profile

METAL PROFILES

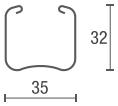
code 4243 (straight)
code 4248 (curved)
Reinforced AL profile



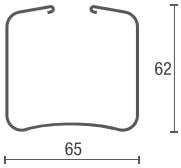
code 4244 (straight)
code 4249 (curved)
Gabled AL profile



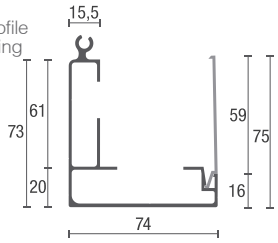
code 4332 (straight)
code 4357 (curved)
Square 32mm tube



code 4333 (straight)
code 4360 (curved)
Square 62mm tube

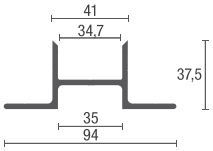


code 4271
Base-side AL profile
with frontal opening



code 4252
closing
support in AL

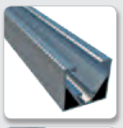
code 4260
Eclypse for
connector 32mm



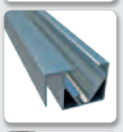
4260
Eclypse for connector 32mm

4668/600 th.20mm
Block cover AL 20

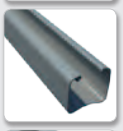
ACCESSORIES



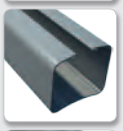
4243 (straight)
4248 (curved)
Reinforced AL profile



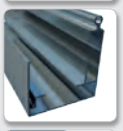
4244 (straight)
4249 (curved)
Gabled AL profile



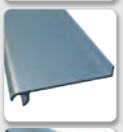
4332 (straight)
4357 (curved)
Square 32mm tube



4333 (straight)
4360 (curved)
Square 62mm tube



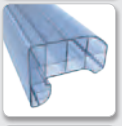
4271
Base-side AL profile
with frontal opening



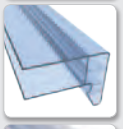
4252
Closing
support in AL

4588
Corner profile i
n AL

4589
End profile
in AL



2179
Start profile
in polycarbonate



2180
End profile
in polycarbonate

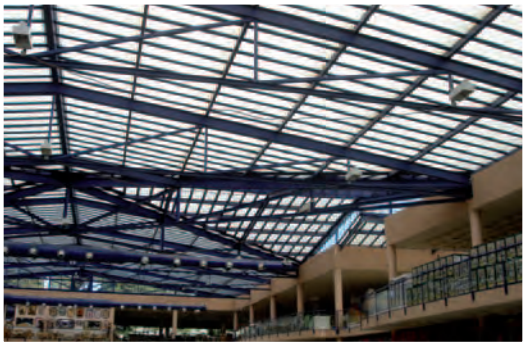
2550
Corner profile
in AL

2182
Block cover

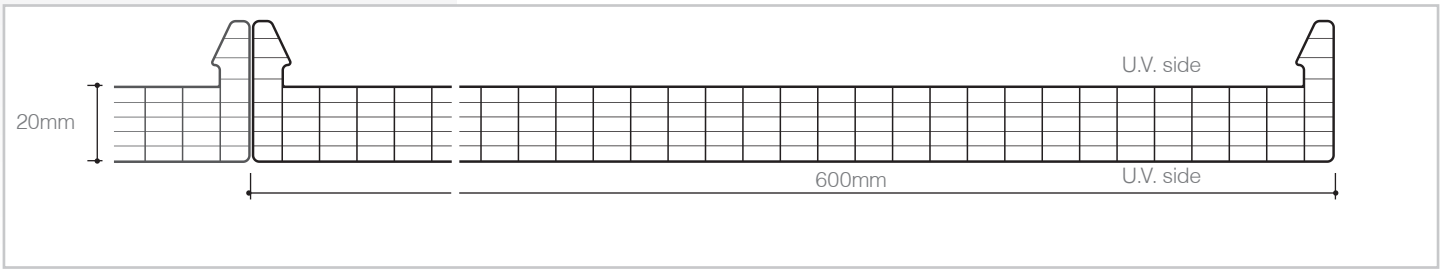
4213 dim. 40x35x580
4221 dim. 70x40x580
Pad PE-LD

4327
Additional tape

arcoPlus® Reversò 626



PROFILE



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

Caleido
LIGHT MANAGEMENT

IR AR
PRODUCT AVAILABLE
WITH IR AND AR TREATMENT

PRODUCTION STANDARDS

thickness	20mm
structure	6 walls
effective modular width	600mm
panel length	no limit
colours available	see page 11

TECHNICAL FEATURES

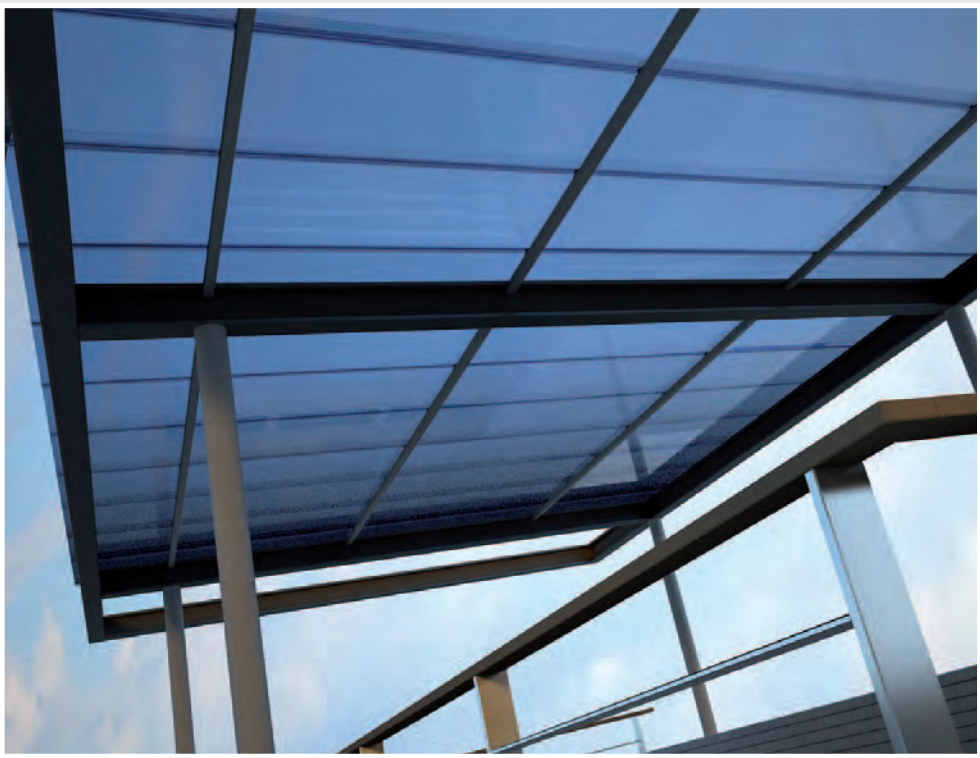
Thermal insulation	1,7 W/m²K
Acoustic insulation	20 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®626 reversò is a modular system of coextruded six-wall polycarbonate panels with a thickness of 20mm.
These are fixed to the existing structure using specific anchor brackets. The panels are joined together by a protected polycarbonate cover plate assembled using a click-on system, or by an aluminium connector, for a perfectly watertight seal.

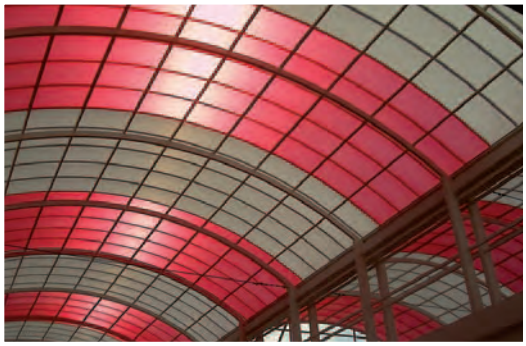
ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min=2,5m



APPLICATIONS

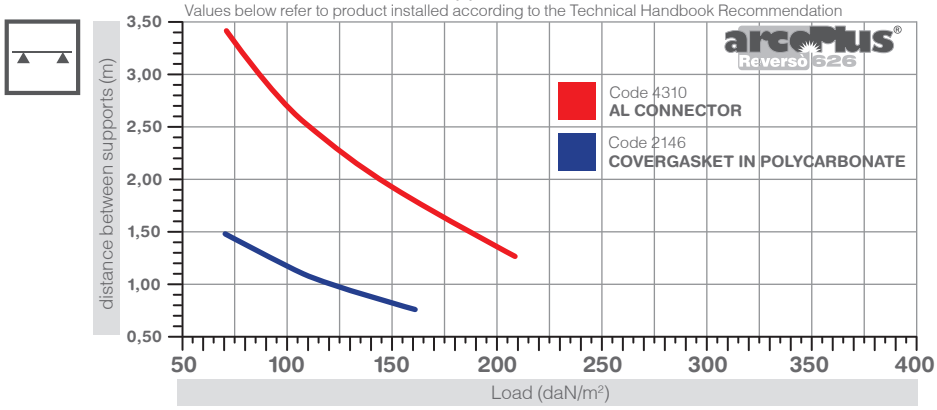
- Roofing
- Curved roofing
- Bardages verticaux



FLAT SYSTEM LOAD RESISTANCE

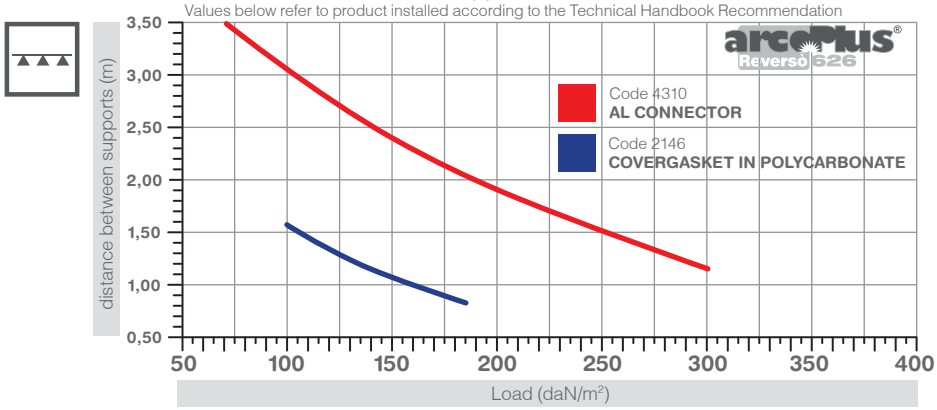
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



SYSTEM WITH ALUMINIUM CONNECTOR CODE 4310

SYSTEM WITH POLYCARBONATE COVERGASKET CODE 2146

EASY AND LOW-COST INSTALLATION

To ensure compliance with snow load and negative wind load resistance requirements, anchor brackets should be fitted for each purlin.

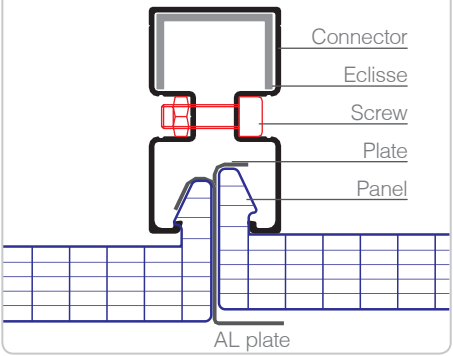
The polycarbonate panels are fastened to the underlying structure using specific brackets, which must be anchored to the purlins using suitable self-drilling/self-tapping screws (on metal structures) and tap bolts (for wooden structures). These screws and bolts are not supplied.

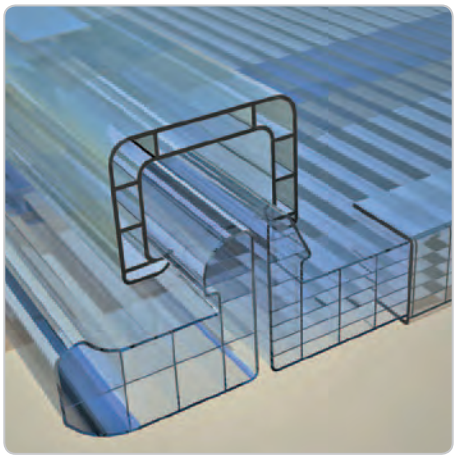
Different connector profiles can be used, depending on the required load specifications.

COMPLETE ROOFING SYSTEM

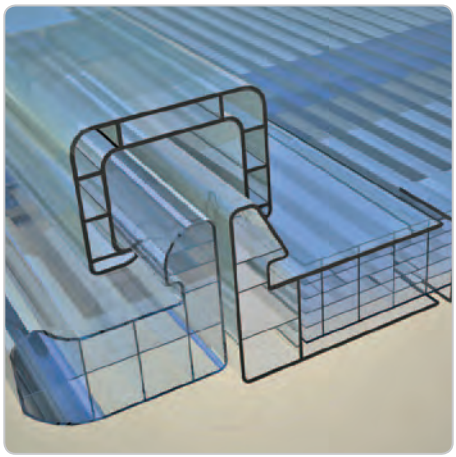
Modular multiwall polycarbonate panels for the construction of flat or curved roofing. The panels are anchored to the supporting structure using specific aluminium brackets to guarantee load strength. Depending on the load capacity values required, or the distance between the purlins of the underlying structures, either polycarbonate cover plates can be used or, for greater strength, aluminium connectors.

DETAIL
of fitting connector with screw

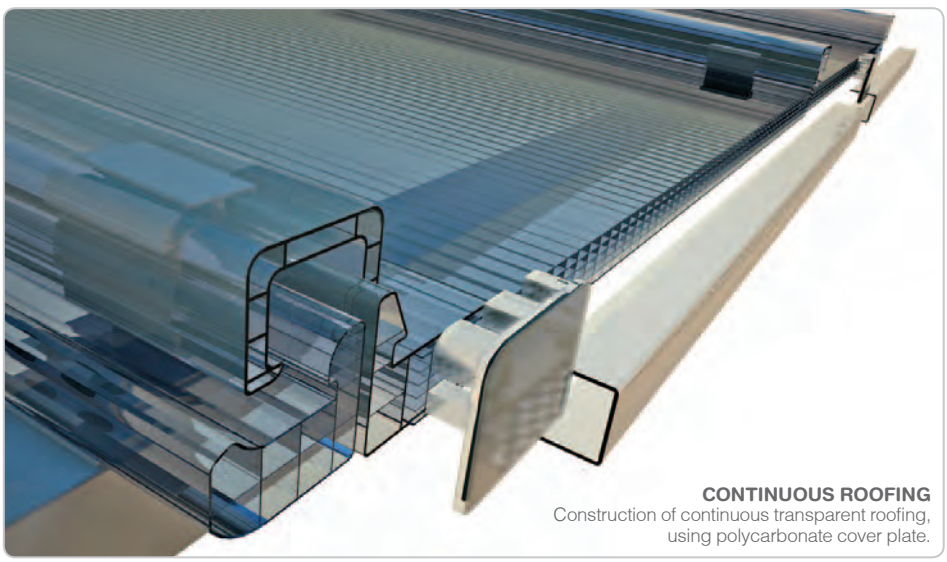




DETAIL OF START PROFILE
tart profile with panel, cover plate, plate and air cell cover profiles.



DETAIL OF END PROFILE
Detail of insertion of section-breaker profile to complete roofing.



CONTINUOUS ROOFING
Construction of continuous transparent roofing, using polycarbonate cover plate.

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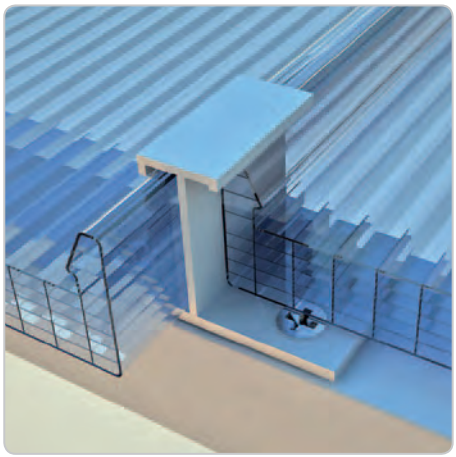
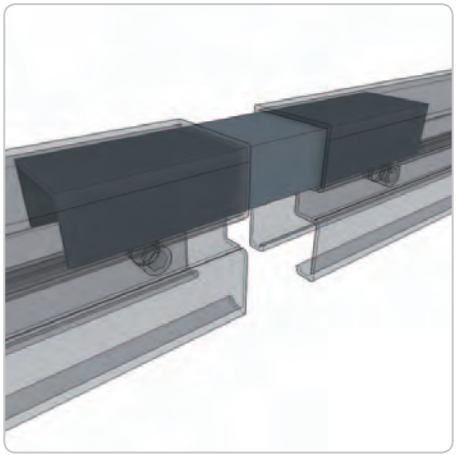
ACCESSORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation.
The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.



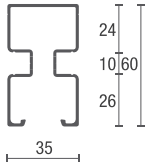
DETAIL OF ANCHORAGE
Profiles anchored to supporting structures using aluminium plates.



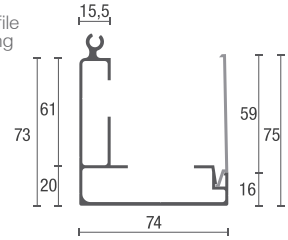
CONNECTOR JOINT
AL connector profiles with eclypse.

METAL PROFILES

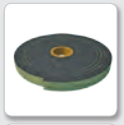
code 4310
Connector AL
profile with screw



code 4271
Base-side AL profile
with frontal opening



code 4252
closing
support in AL



4329
Guarnizione PE-LD
4x15mm

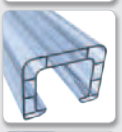
4316 M6 nut
4315 M6 x 20 screw
Accessories for connector

2182
Block cover

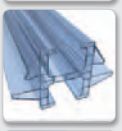
4327
Additional tape

ACCESSORIES

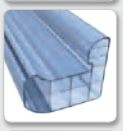
4303
Covergasket
stopper



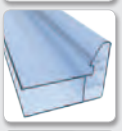
2146
Covergasket
in polycarbonate



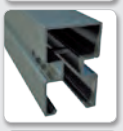
2282
Double connector
in polycarbonate



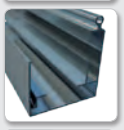
2179
Start profile
in polycarbonate



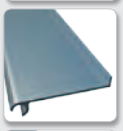
2180
End profile
in polycarbonate



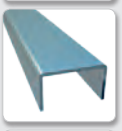
4310
Connector AL
profile with screw



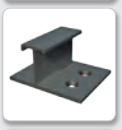
4271
Base-side AL profile
with frontal opening



4252
closing
support in AL



4319/200
AL eclypse
for connector



4328
AL plate

4264
Stainless steel plate
for vertical connection

4263
Stainless steel plate
for flat connection

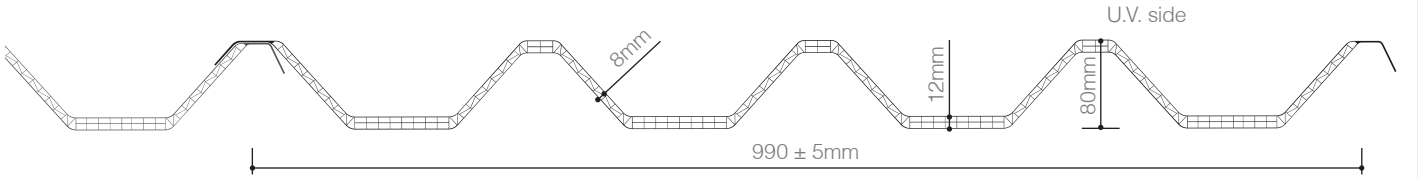
4213 dim. 40x35x580
4221 dim. 70x40x580
Pad PE-LD

4318
Pad PE-LD
for connector

2.3
MODULAR OVERLAPPING SYSTEMS

arcoPlus® 1000

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for translucent curtain walls and roofing

PRODUCTION STANDARDS

thickness	variable 8÷12mm
profile height	80mm
structure	3 walls
modular width	990 - 1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	2,7 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass Bs1d0
Accidental shock resistance	1.200 Joule

DESCRIPTION

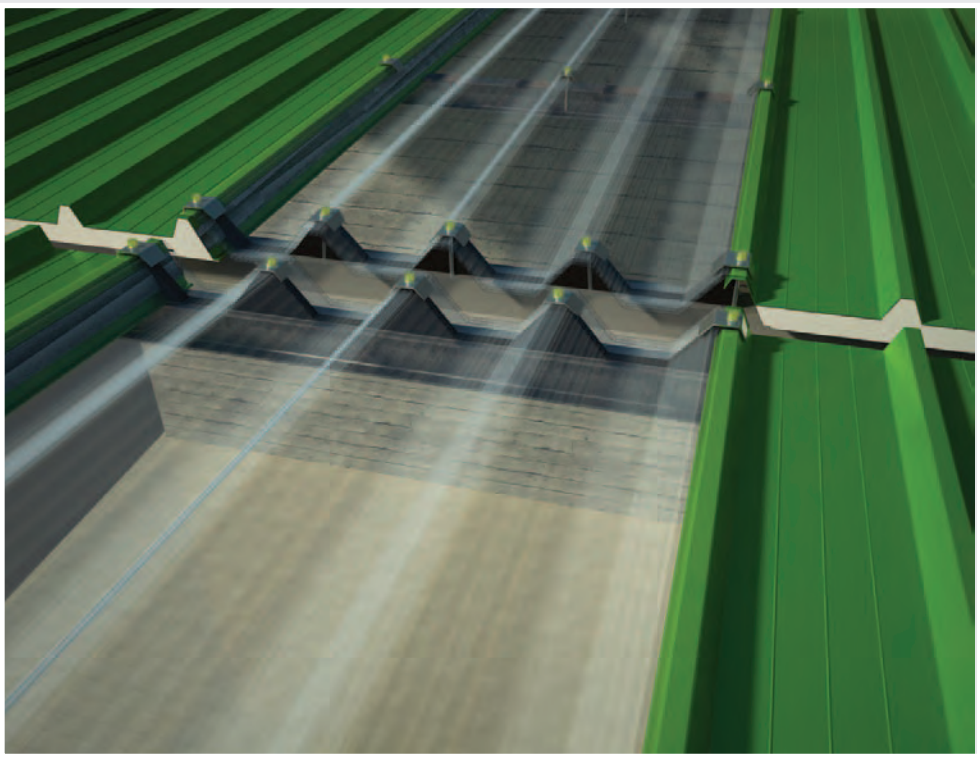
arcoPlus1000® is a modular corrugated system consisting of 3 coextruded polycarbonate walls, in 8÷12mm thickness, perfectly overlapping lengthwise and enabling continuous coverage and skylights filled gutter.
Considering the linear thermal expansion of polycarbonate, to avoid cracks at the through fixings the recommended maximum length is 5,000mm.

ADVANTAGES

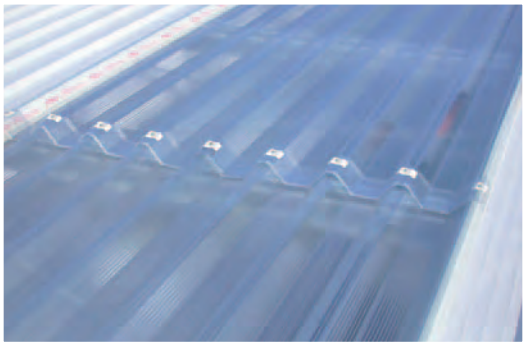
- High load resistance
- Longitudinal overlap
- Transverse overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

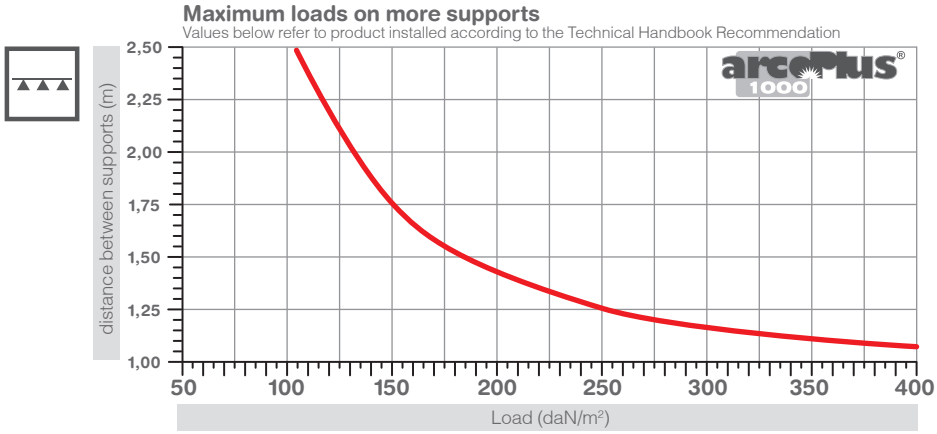
- Vertical windows
- Roofing



SKYLIGHT - PANEL APPLICATION
Construction of skylight with lateral overlapping of insulating roofing panels. Detail of valley gutter.



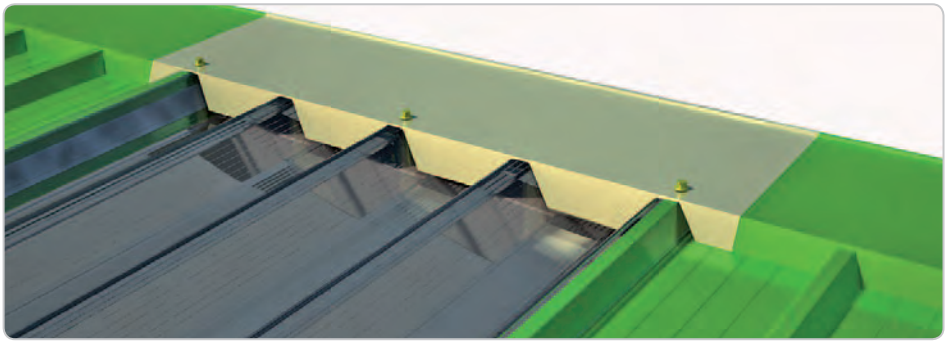
LOAD RESISTANCE
SKYLIGHT - SINGLE PANEL SYSTEM



SKYLIGHT GUTTER RIDGE APPLICATION

Panels laterally overlapping insulated corrugated metal roofing panels.
Thanks to the specific design of the profile the system is perfectly compatible for overlapping all the main types of panel.

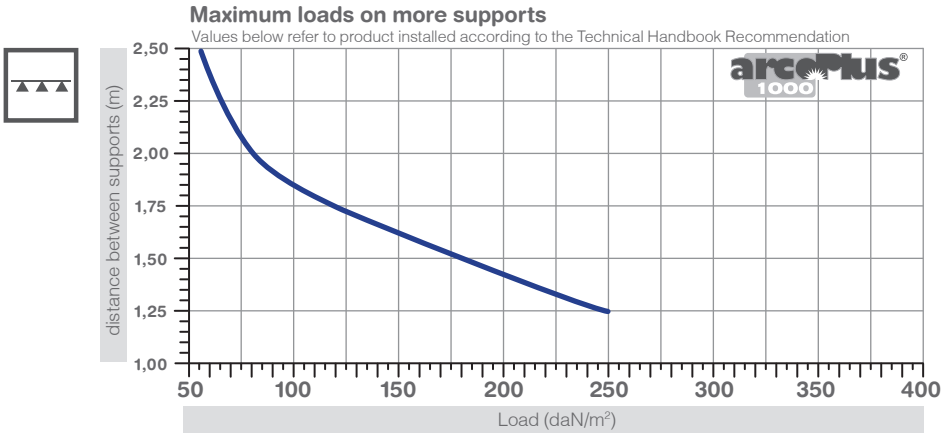
Minimum slope 5%.



SHEET METAL RIDGE
Pre-painted galvanised steel sheet ridge profile, consisting of two half-ridges

COVER FOOT
Detail of lateral overlapping with insulated metal panels. Fastening of cover foot.

LOAD RESISTANCE OF MULTIPLE PANEL CONTINUOUS ROOFING SYSTEM



APPLICATION ON CONTINUOUS ROOFING

Construction of continuous roofing/ wall with continuous lateral overlapping of polycarbonate panels.

For roofing, recommended minimum slope 7%.

CONTINUOUS ROOFING
Construction of continuous translucent roofing, with overlapping of panels. Recommended minimum slope 7%.

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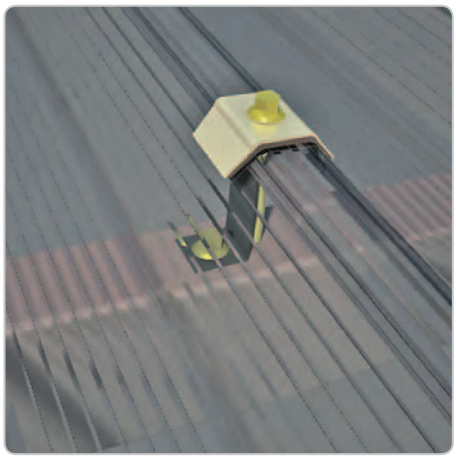
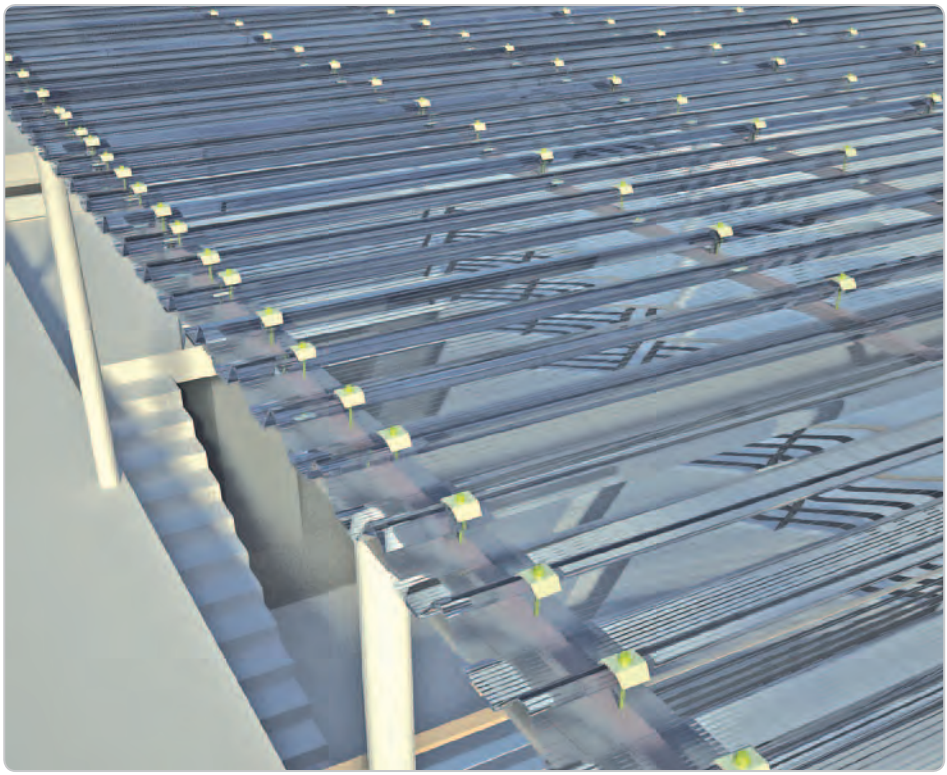
ACCESSORIES

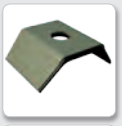
arcoPlus®1000 is a complete system for the construction of translucent curtain walls/roofing. It includes a range of accessories that make it suitable for all purposes. In addition to complete fastening assemblies, the system includes a tongue and groove seal, a flat strip for sealing overlap areas, a range of steel profiles including bracing brackets, and a special press-formed profile to be inserted as a reinforcement on the groove side of the panel. For continuous roofing the panels are arranged with a continuous lateral overlap.
A flat ridge to place over the adjacent ridge profiles completes the range of accessories. Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.



ANCHORAGE OF ROOFING
This is done using an aluminium cap with Vipla washer and self-drilling screw.



ACCESSORIES

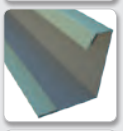


4234
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

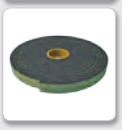
4229
Tongue and groove gasket in PE-LD

4250
Gasket for gutter in PE-LD



4236
Protected steel profile

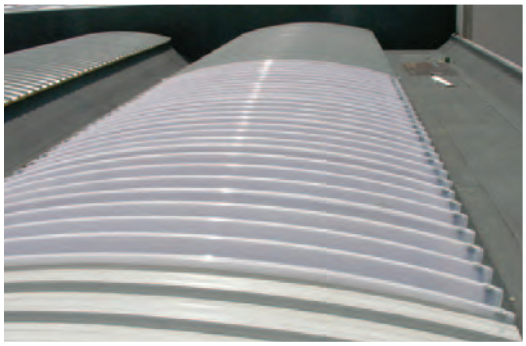
4235
Central bracing bracket



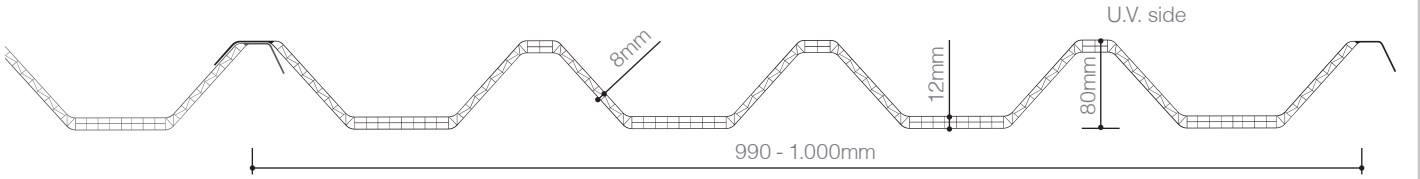
4232
Sealant tape PE-LD 20x10

4231
Roof profile (2 pieces)

arcoplus® 1000 Curvo



PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent roofing

PRODUCTION STANDARDS

thickness	variable 8÷12mm
profile height	80mm
structure	3 walls
modular width	990 - 1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	2,7 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

SKYLIGHT PANEL

Creation of skylights, achieved by means of lateral overlapping of translucent components with curved metal insulated panels.

CONTINUOUS ROOFING

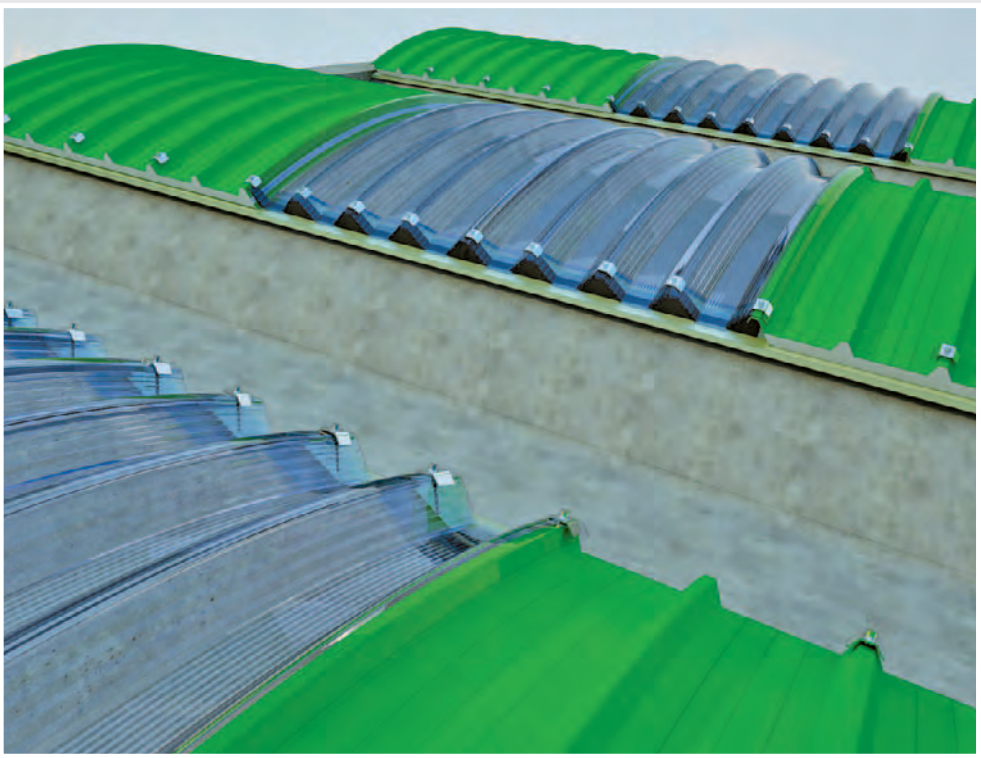
Creation of continuous roofing, achieved by means of continuous lateral overlapping of polycarbonate panels. Components are manufactured with a bend radius of R.3,300mm or R.6,000mm.

ADVANTAGES

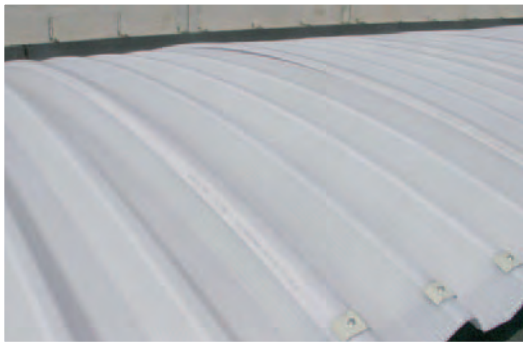
- High load resistance
- Longitudinal overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation

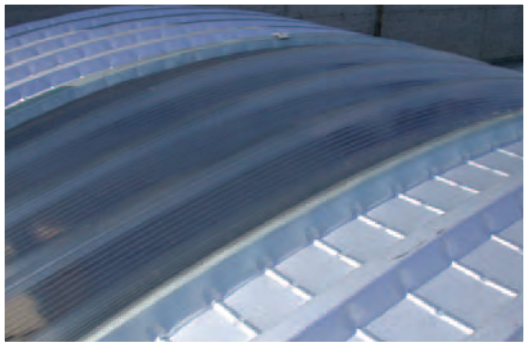
APPLICATIONS

Curved roofing



CURVED ROOFING
Detail of curved roofing in use with insulated metal panels.

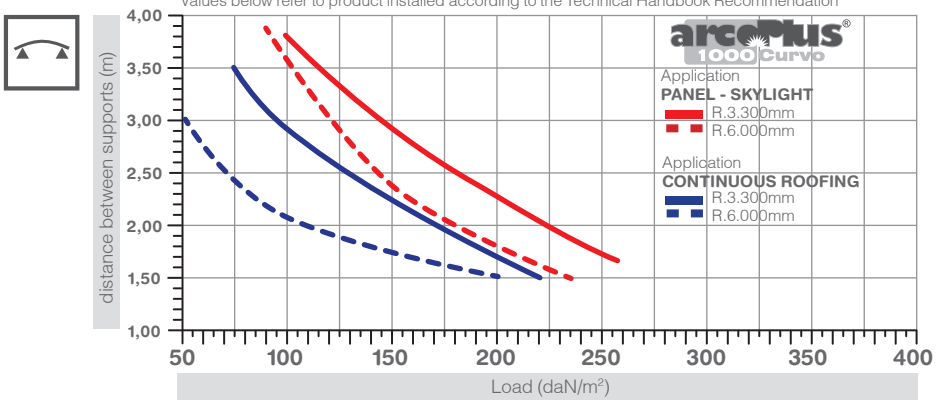




CURVED SYSTEM LOAD RESISTANCE

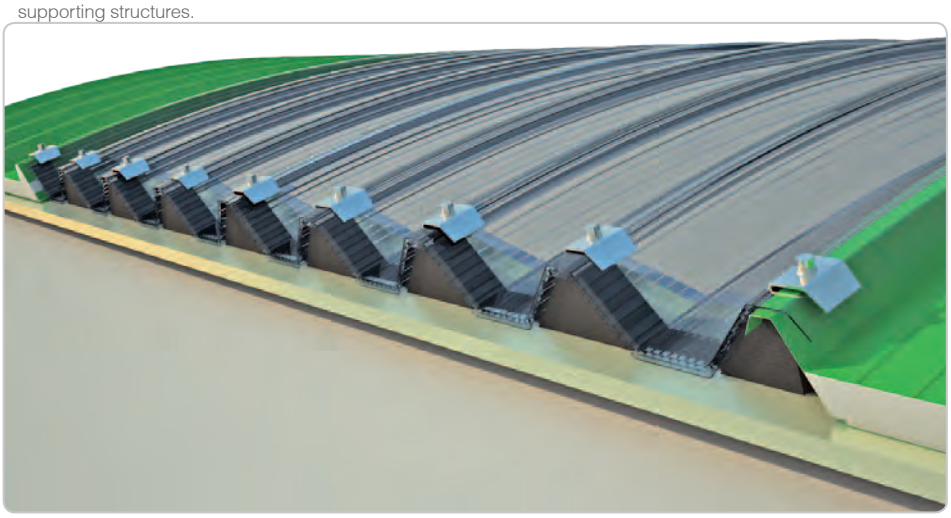
Maximum loads on two supports - R.3.300 - R.6.000mm

Values below refer to product installed according to the Technical Handbook Recommendation



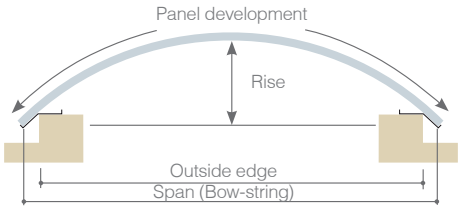
DETAIL OF ANCHORAGE

Detail of anchorage of panels to supporting structures.

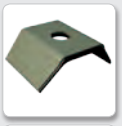


DEVELOPMENT TABLE

	R.3.300mm		R.6.000mm	
Span	Rise	Development	Rise	Development
1.000	38	1.016	21	1.008
1.200	55	1.221	30	1.210
1.400	75	1.428	41	1.413
1.600	98	1.636	54	1.615
1.800	125	1.845	68	1.819
2.000	155	2.057	84	2.023
2.200	189	2.270	102	2.227
2.400	226	2.486	121	2.432
2.600	267	2.705	143	2.638
2.800	312	2.927	166	2.845
3.000	361	3.152	191	3.052
3.200	414	3.381	217	3.261
3.400	472	3.615	246	3.470
3.600	534	3.854	276	3.681
3.800	602	4.098	309	3.892
4.000	675	4.349	343	4.105
4.200	754	4.608	380	4.319
4.400	840	4.875	418	4.535
4.600	935	5.151	458	4.752
4.800	1.035	5.439	501	4.971



ACCESSORIES

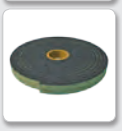


4234
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

4250
Gasket for gutter PE-LD

4235
Central bracing bracket

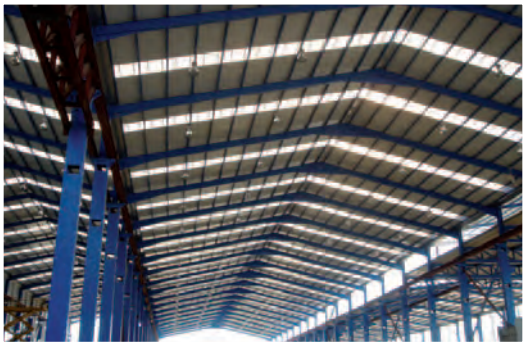


4232
Sealant tape PE-LD 20x10

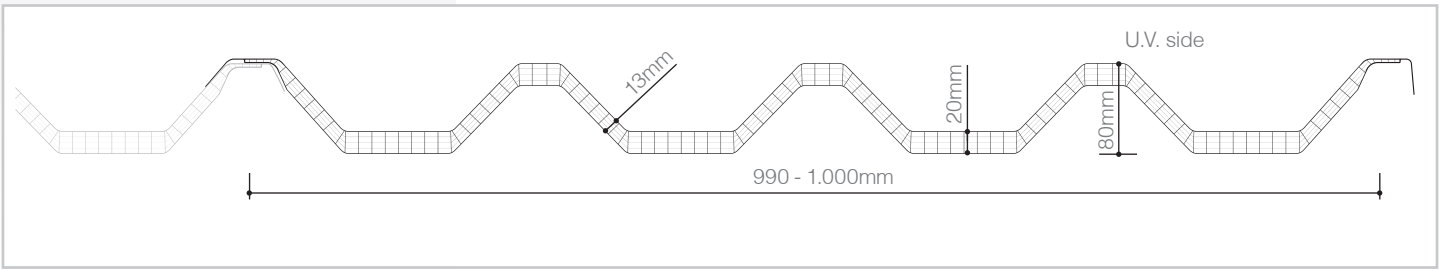
ACCESSORIES

arcoPlus®1000 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes.
Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

arcoPlus® SUPER 1000



PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for translucent curtain walls and roofing

PRODUCTION STANDARDS

thickness	variable 13÷20mm
profile height	80mm
structure	5 walls
modular width	990 - 1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,8 W/m²K
Acoustic insulation	18 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

DESCRIPTION

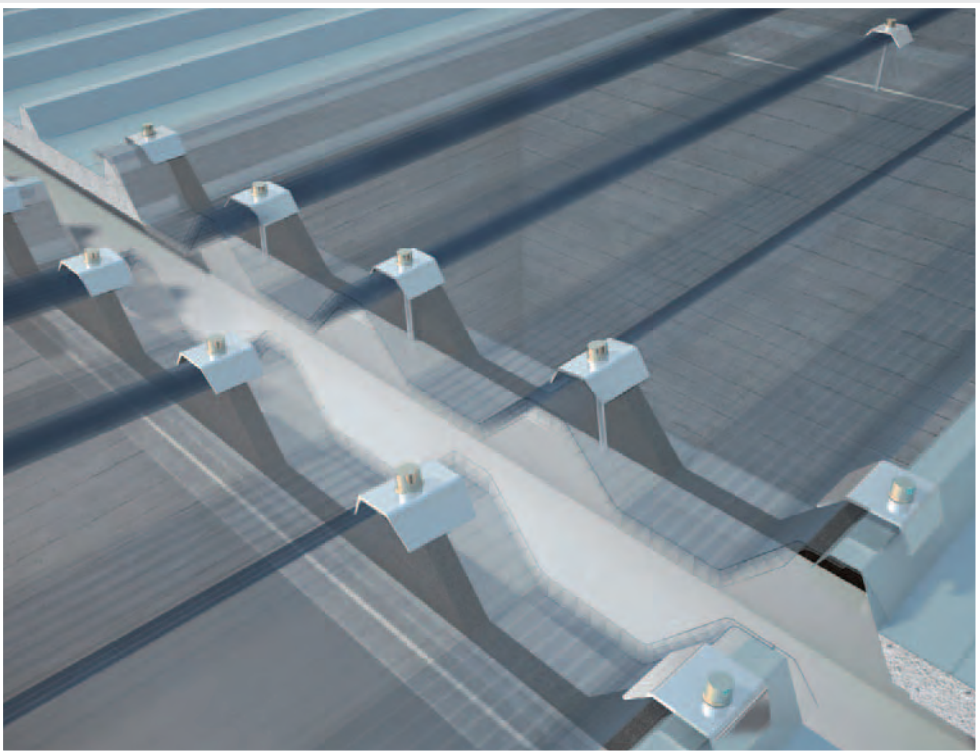
arcoPlus®SUPER1000 is a modular corrugated system consisting of 5 co-extruded polycarbonate walls, in 13÷20mm thickness, perfectly overlapping lengthwise and enabling continuous coverage and skylights filled gutter. Considering the linear thermal expansion of polycarbonate, to avoid cracks at the through fixings the recommended maximum length is 5,000mm.
For higher length of the pitch is better the use of multiple overlapping panels.

ADVANTAGES

- High load resistance
- Longitudinal overlap
- Transverse overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

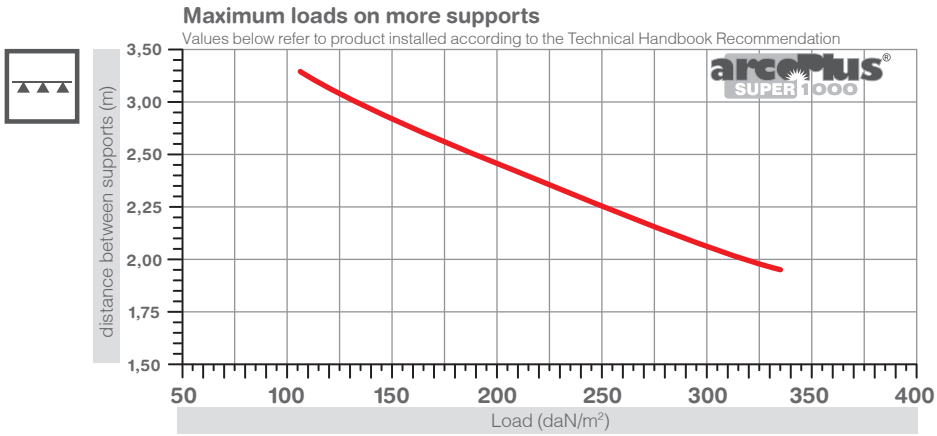
APPLICATIONS

- Vertical windows
- Roofing



SKYLIGHT - PANEL APPLICATION
Construction of skylight with lateral overlapping of insulating roofing panels. Detail of valley gutter.

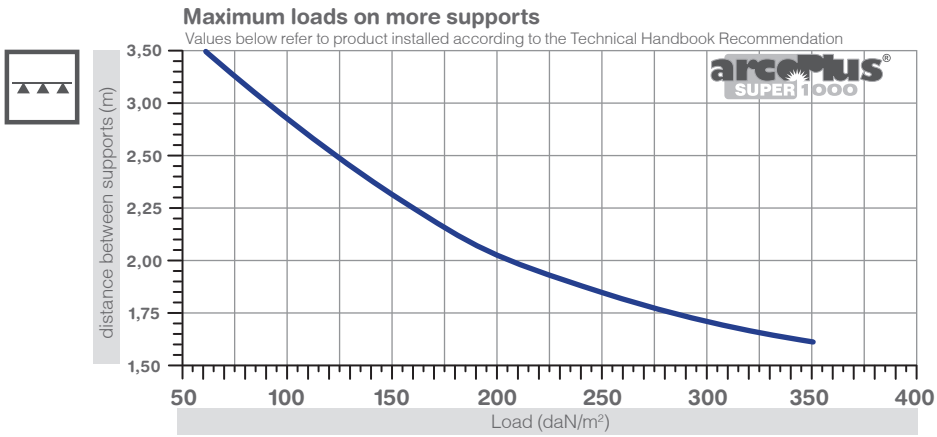
LOAD RESISTANCE SKYLIGHT - SINGLE PANEL SYSTEM



SKYLIGHT GUTTER RIDGE APPLICATION

Panels laterally overlapping insulated corrugated metal roofing panels.
Thanks to the specific design of the profile the system is perfectly compatible for overlapping all the main types of panel. Minimum slope 5%.

LOAD RESISTANCE OF MULTIPLE PANEL CONTINUOUS ROOFING SYSTEM



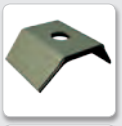
APPLICATION ON CONTINUOUS ROOFING

Construction of continuous roofing/wall with continuous lateral overlapping of polycarbonate panels.
For roofing, recommended minimum slope 7%.

ACCESSORIES

arcoPlus®SUPER1000 is a complete system for the construction of translucent curtain walls/roofing. It includes a range of accessories that make it suitable for all purposes. In addition to complete fastening assemblies, the system includes a tongue and groove seal, a flat strip for sealing overlap areas, a range of steel profiles including bracing brackets, and a special press-formed profile to be inserted as a reinforcement on the groove side of the panel. For continuous roofing the panels are arranged with a continuous lateral overlap.
A flat ridge to place over the adjacent ridge profiles completes the range of accessories. Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

ACCESSORIES

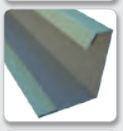


4234
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

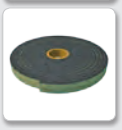
4655
Tongue and groove gasket in PE-LD

4658
Gasket for gutter in PE-LD



4236
Protected steel profile

4235
Central bracing bracket

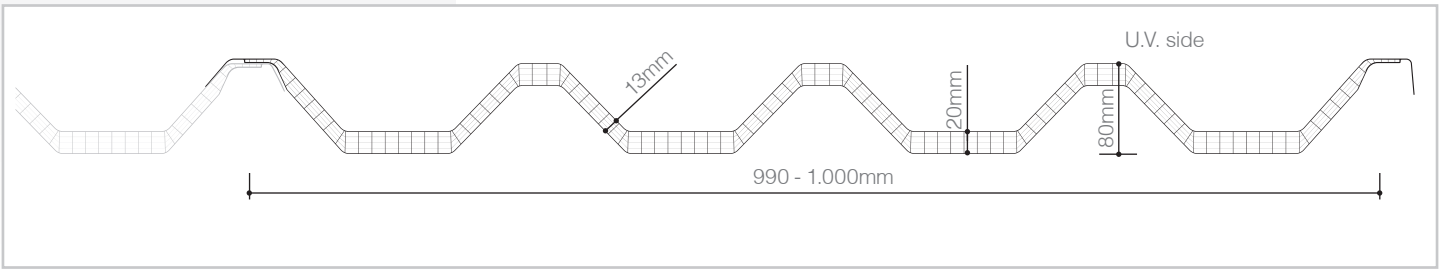


4232
Sealant tape PE-LD 20x10

4231
Roof profile (2 pieces)

arcoPlus® SUPER 1000Curvo

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent roofing

PRODUCTION STANDARDS

thickness	variable 13÷20mm
profile height	80mm
structure	5 walls
modular width	990 - 1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	1,8 W/m²K
Acoustic insulation	18 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

SKYLIGHT PANEL

Creation of skylights, achieved by means of lateral overlapping of translucent components with curved metal insulated panels.

CONTINUOUS ROOFING

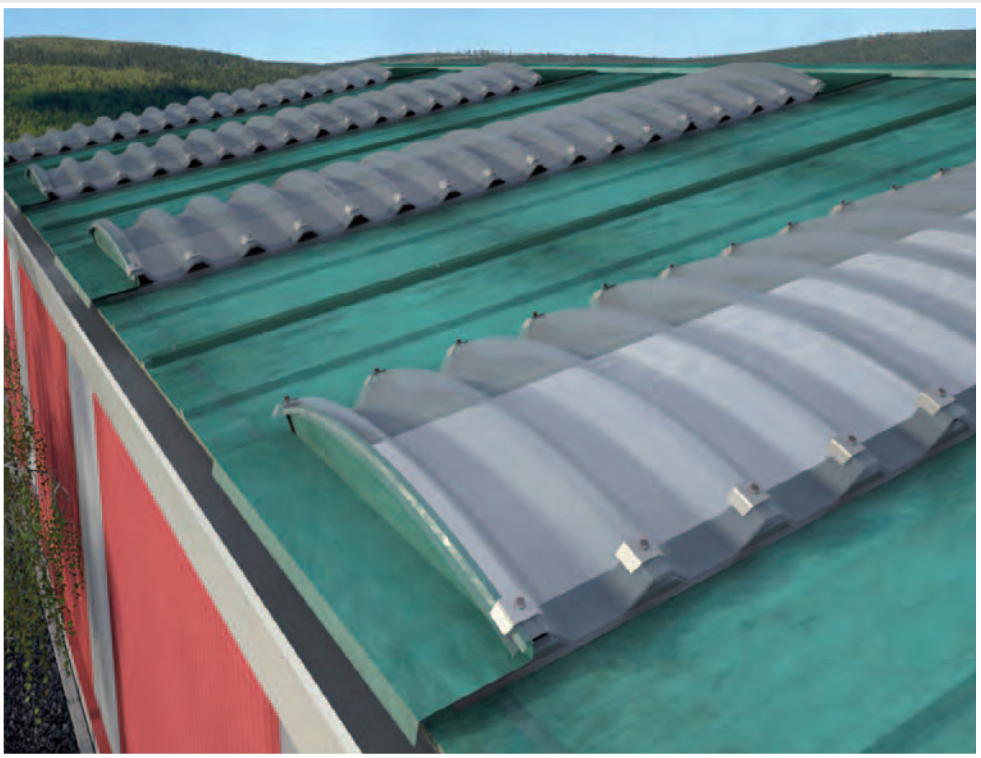
Creation of continuous roofing, achieved by means of continuous lateral overlapping of polycarbonate panels. arcoPlus®SUPER1000 is produced with a radius of curvature R.3.000mm and R. 6.000mm.

ADVANTAGES

- High load resistance
- Longitudinal overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation

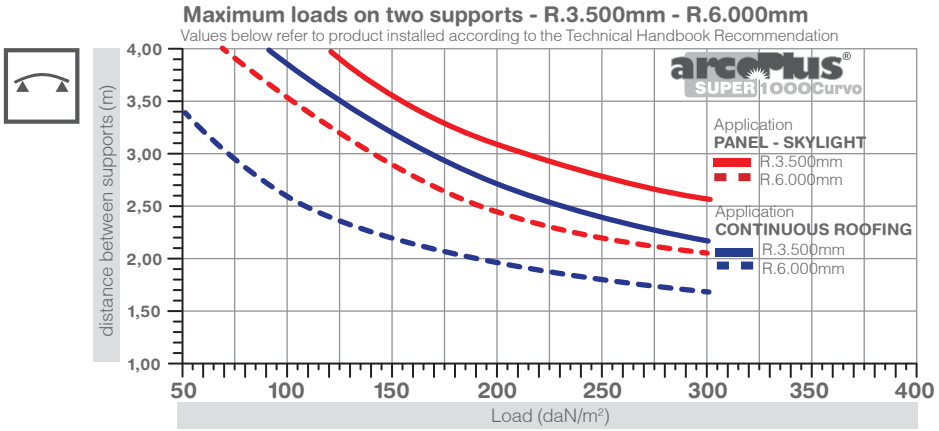
APPLICATIONS

Curved roofing

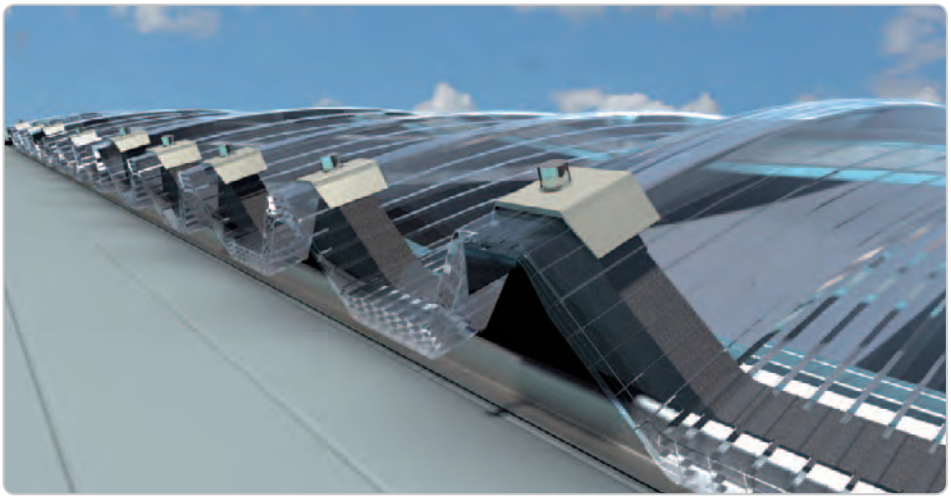


SKYLIGHT PANELS APPLICATION
Skylight gutter ridge applicationwith cross disposition of the bent panels in polycarbonate

RESISTENZA AL CARICO SISTEMA CURVO

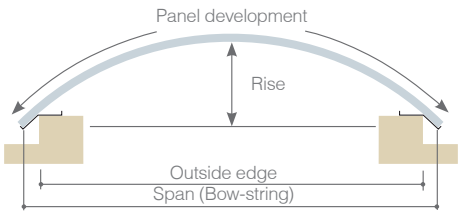


DETAIL OF ANCHORAGE
detail of fixing panels to support structures



DEVELOPMENT TABLE

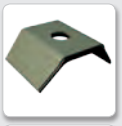
	R.3.500mm		R.6.000mm	
Span	Rise	Development	Rise	Development
1.000	36	1.015	21	1.008
1.200	52	1.220	30	1.210
1.400	71	1.426	41	1.413
1.600	93	1.633	54	1.615
1.800	118	1.841	68	1.819
2.000	146	2.051	84	2.023
2.200	177	2.264	102	2.227
2.400	212	2.478	121	2.432
2.600	250	2.694	143	2.638
2.800	292	2.914	166	2.845
3.000	338	3.136	191	3.052
3.200	387	3.361	217	3.261
3.400	441	3.591	246	3.470
3.600	498	3.824	276	3.681
3.800	561	4.063	309	3.892
4.000	628	4.306	343	4.105
4.200	700	4.556	380	4.319
4.400	778	4.812	418	4.535
4.600	862	5.077	458	4.752
4.800	952	5.350	501	4.971



ACCESSORIES

arcoPlus®SUPER1000 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes. Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

ACCESSORIES

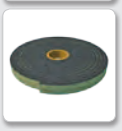


4234
Aluminium cap
with gasket

4233
Screw with 6.3x120
Vipla washer

4658
Gasket for gutter
PE-LD

4235
Central bracing
bracket



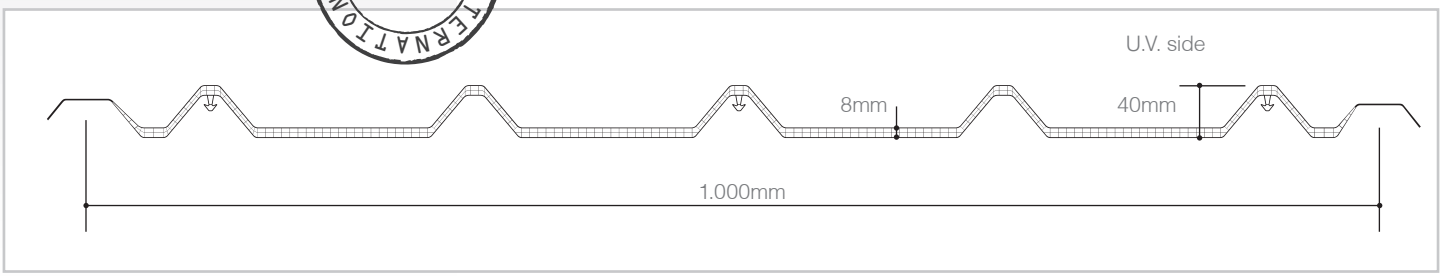
4232
Sealant tape
PE-LD 20x10

2.3
MODULAR
OVERLAPPING SYSTEMS

arcoPlus® GrecaClick

PATENT - INTERNATIONAL - PROTECTED SYSTEM

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate, assembled using a snap-on system without drilling for translucent curtain walls and roofing

PRODUCTION STANDARDS

thickness	8mm
profile height	40mm
structure	3 walls
modular width	1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,0 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

Innovative patented roofing system, anchored by pressing it onto specific anchor brackets that allow the polycarbonate sheets to expand without undermining load strength.

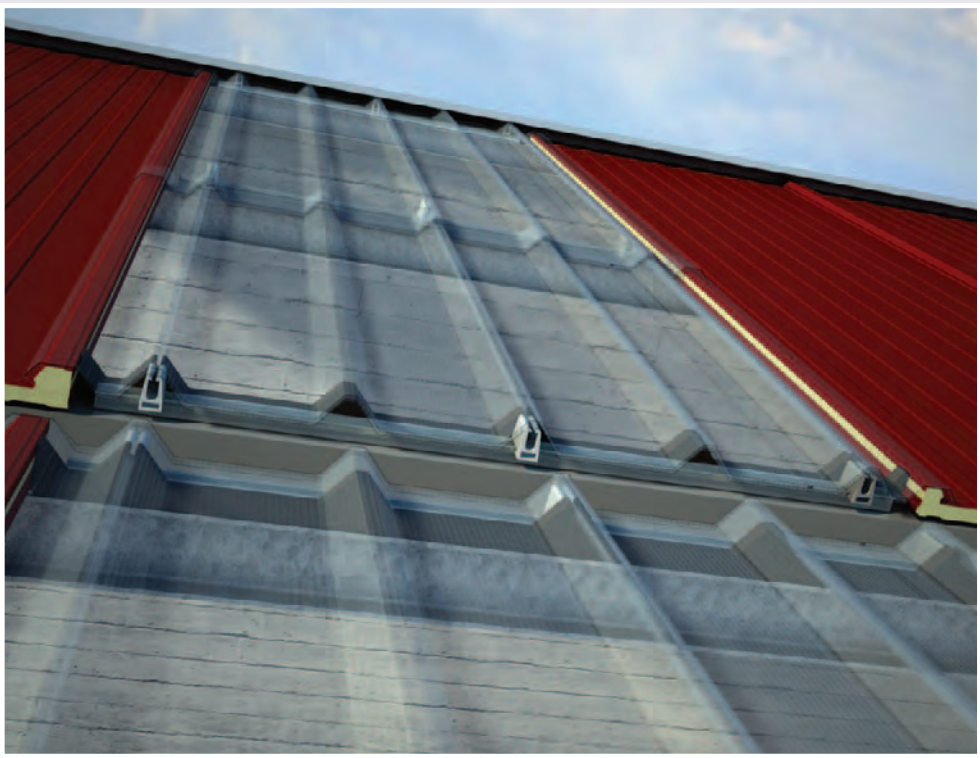
N.B. arcoPlus®GrecaCLICK
Supplied with thermowelded ends

ADVANTAGES

- Pressed on without drilling holes in panels
- Anchor brackets hidden in the structure
- Transverse and longitudinal overlap
- Resistance to U.V. rays and to hail
- Light transmission
- Thermowelded sheets
- Heat insulation

APPLICATIONS

- Roofing and skylights
- Vertical windows



SKYLIGHT - PANEL APPLICATION
Skylight gutter ridge application

SKYLIGHT GUTTER RIDGE APPLICATION

Skylight obtained by laterally overlapping with all types of foamed roofing panels or corrugated sheets. The special method of connection guarantees resistance to dynamic wind loads while at the same time allowing the material to expand.
Recommended minimum slope 5%.

CONTINUOUS ROOFING APPLICATION

Construction of continuous roofing with continuous lateral overlapping of components.
Recommended minimum slope 7%.

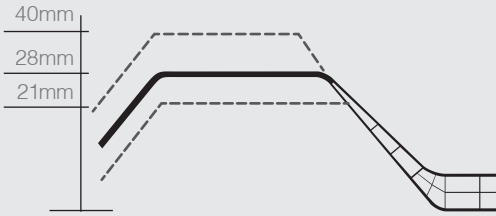
ACCESSORIES

4420 Kit 20
4423 Kit 30
4424 Kit 40
GrecaClick connection kit

4425 Kit 20
4427 Kit 30
4429 Kit 40
GrecaClick overlap kit

4406 Kit 0
4407 Kit 20
4408 Kit 30
4409 Kit 40
PE-LD GrecaClick ridge bird comb kit

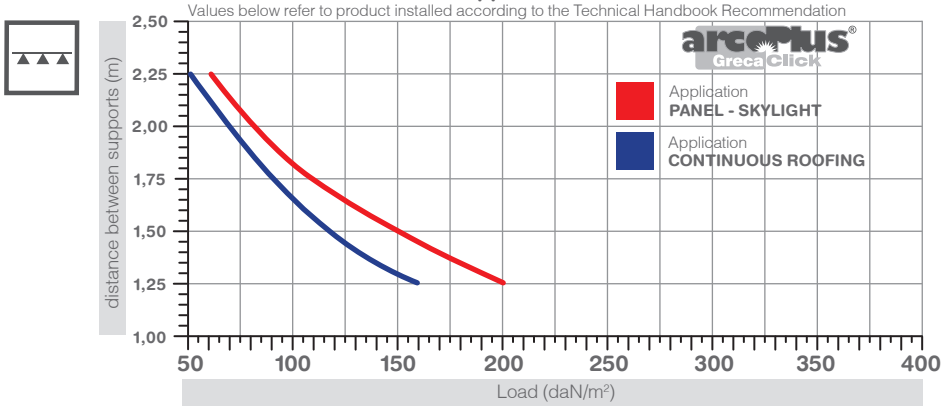
N.B. arcoPlus®GrecaCLICK
Supplied with thermowelded ends



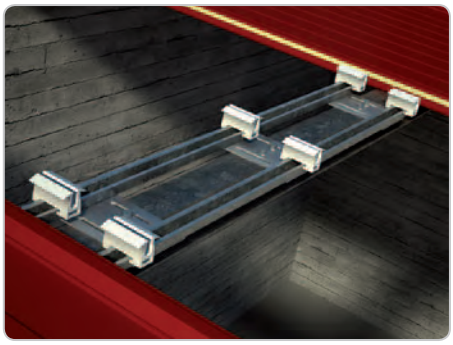
The ends of the sheets can be modified for use with different roofing profiles.

LOAD RESISTANCE

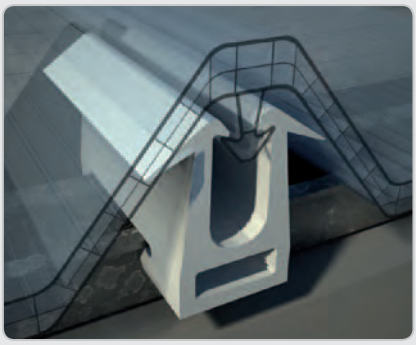
Maximum loads on more supports
Values below refer to product installed according to the Technical Handbook Recommendation



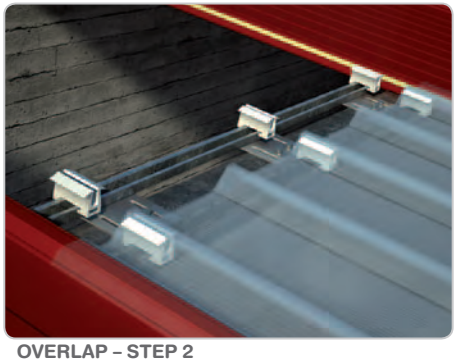
DETAIL OF RIDGE
Detail of ridge with PE-LD seal



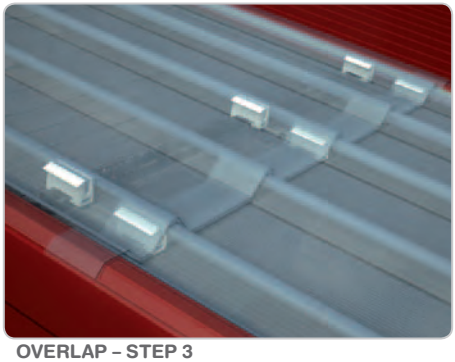
OVERLAP – STEP 1
Detail of double anchor bracket anchored to roofing structure



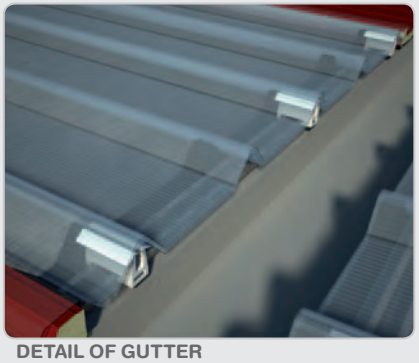
ANCHORAGE OF ROOFING
This is done by pressing onto the anchor bracket.



OVERLAP – STEP 2
Insertion of lower sheet by pressing



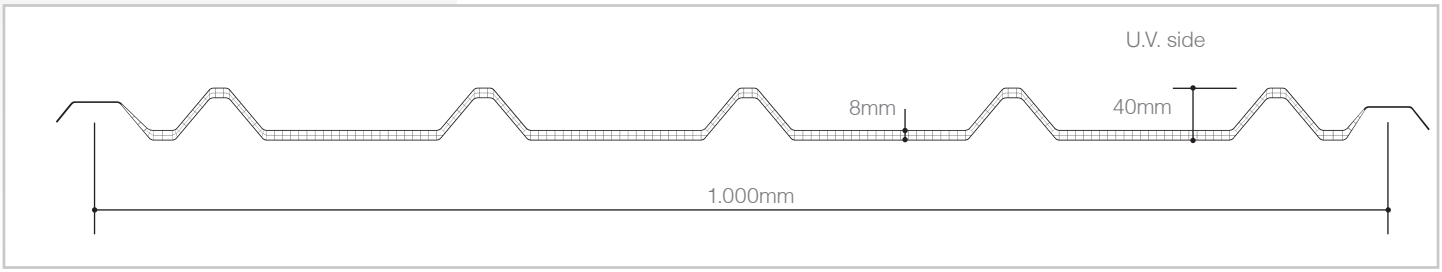
OVERLAP – STEP 3
Insertion of upper sheet by pressing



DETAIL OF GUTTER
Detail of insertion of the PE-LD seal.

arcoPlus® MiniGreca

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for translucent curtain walls and roofing applications

PRODUCTION STANDARDS

thickness	8mm
profile height	40mm
structure	3 walls
modular width	1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,0 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®MiniGreca, is a complete system for the construction of translucent curtain walls and roofing and includes a range of accessories that make it suitable for all purposes. Thanks to the specific design of the profile the system is perfectly compatible with all the main types of panel.

N.B. arcoPlus®MiniGreca
Supplied with thermowelded ends

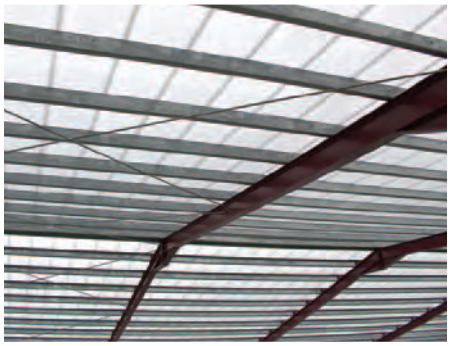
ADVANTAGES

- Transverse and longitudinal overlap
- Resistance to U.V. rays and to hail
- Light transmission
- Thermowelded sheets
- Heat insulation

APPLICATIONS

- Roofing and skylights

SKYLIGHT - PANEL APPLICATION
Skylight gutter ridge application



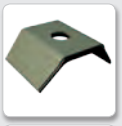
SKYLIGHT GUTTER RIDGE APPLICATION

Skylight obtained by means of lateral overlapping with any type of corrugated roofing sheet.
Recommended minimum slope 5%.

CONTINUOUS ROOFING APPLICATION

Construction of continuous roofing with continuous lateral overlapping of panels.
Recommended minimum slope 7%.

ACCESSORIES



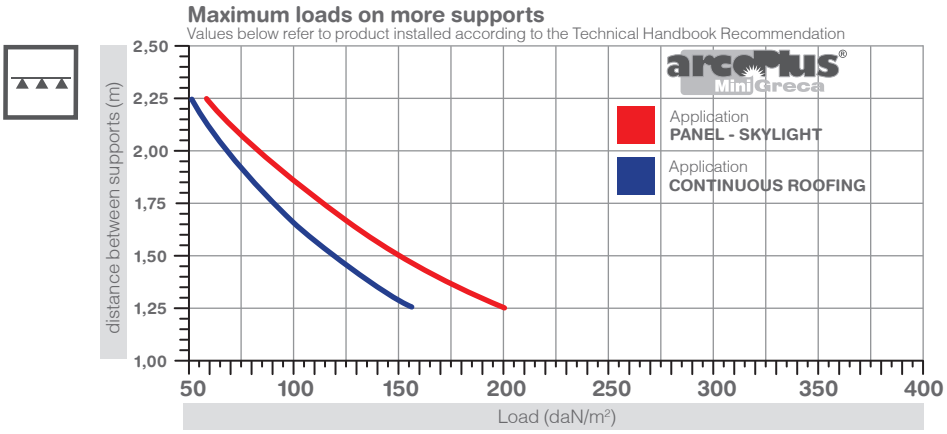
4433
Aluminium cap
with gasket

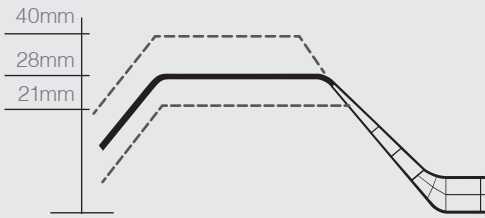
4233
Screw with 6.3x60
Vipla washer

4406 Kit 0 - 40
4404 Kit 21 - 28
PE-LD GrecaClick
ridge bird comb kit

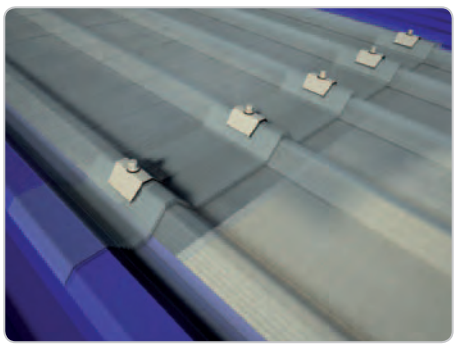
4405
Gasket for gutter
PE-LD

LOAD RESISTANCE

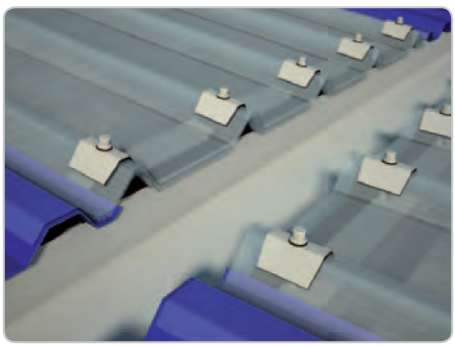




The ends of the sheets can be modified to fit the different types of roofing profile.

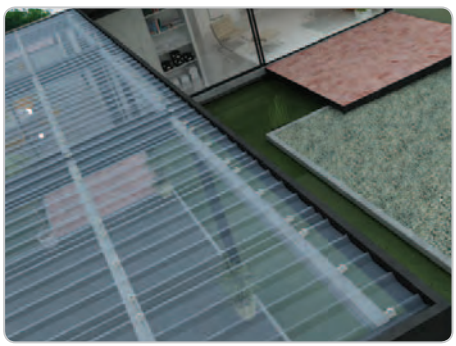


DETAIL OF OVERLAP
Detail of double anchor bracket
anchored to roofing structure

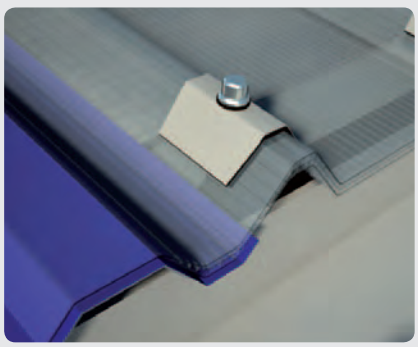


DETAIL OF GUTTER
Detail of insertion of
the PE-LD seal.

CONTINUOUS ROOFING
Creation of large areas of transparent roofing.



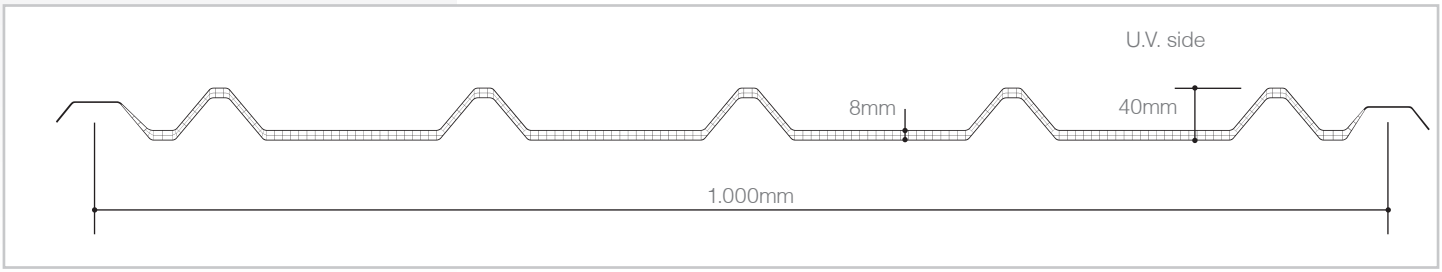
CONTINUOUS ROOFING
Anchorage of roof components



ANCHORAGE OF ROOFING
This is done by drilling and inserting a screw with Vipla washer and cap.

arcoPlus® MiniGrecaCurvo

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent roofing

PRODUCTION STANDARDS

thickness	8mm
profile height	40mm
structure	3 walls
modular width	1.000mm
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,0 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0

EASY AND LOW-COST INSTALLATION

Creation of continuous roofing, or skylight, achieved by means of continuous lateral overlapping of polycarbonate panels with curved metal insulated panels.

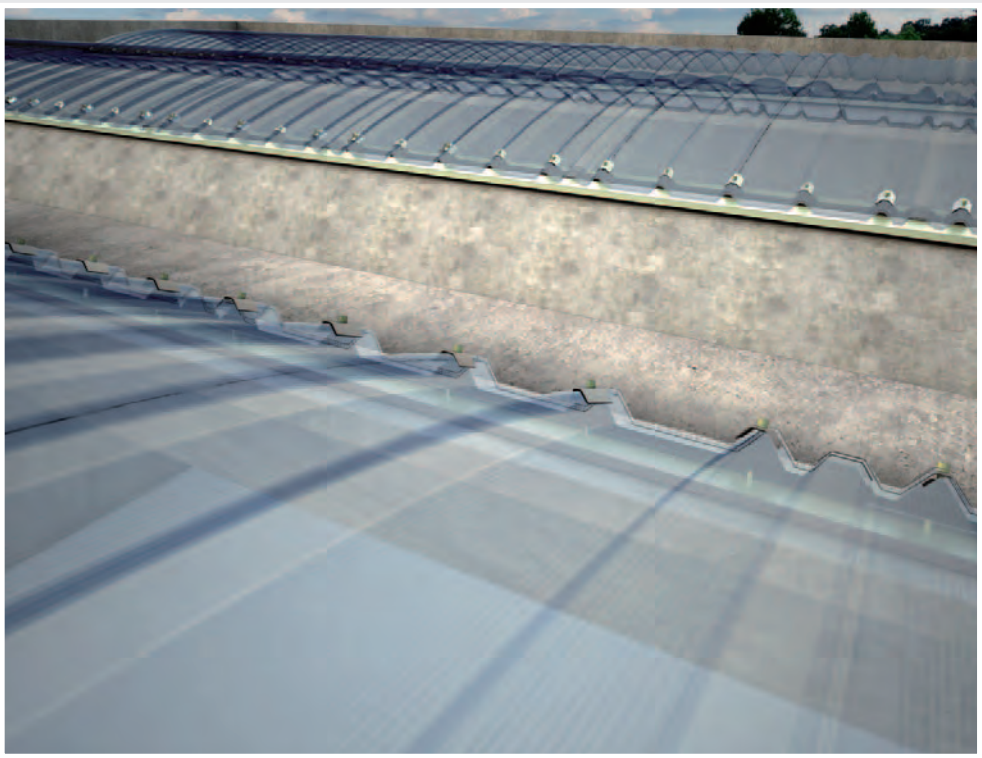
N.B. arcoPlus®MiniGreca
Supplied with thermowelded ends.

ADVANTAGES

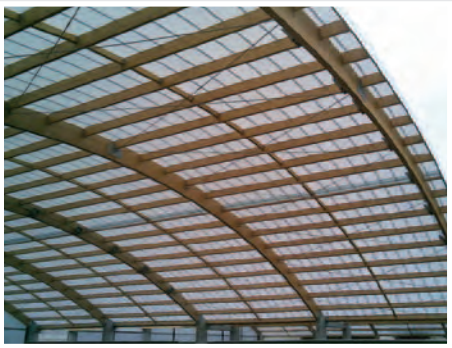
- Transverse and longitudinal overlap
- Resistance to U.V. rays and to hail
- Light transmission
- Thermowelded sheets
- Heat insulation

APPLICATIONS

- Roofing and skylights



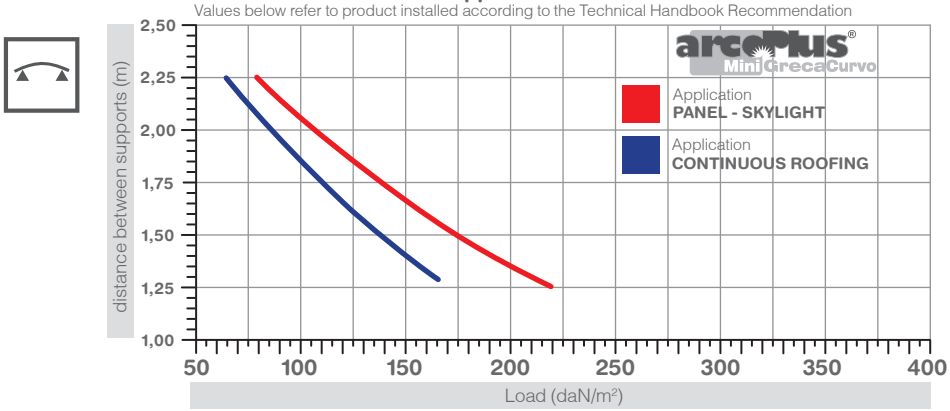
CONTINUOUS ROOFING APPLICATION
Industrial contiuous roofing



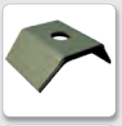
CURVED SYSTEM LOAD RESISTANCE

Maximum loads on two supports - R.3.500mm

Values below refer to product installed according to the Technical Handbook Recommendation



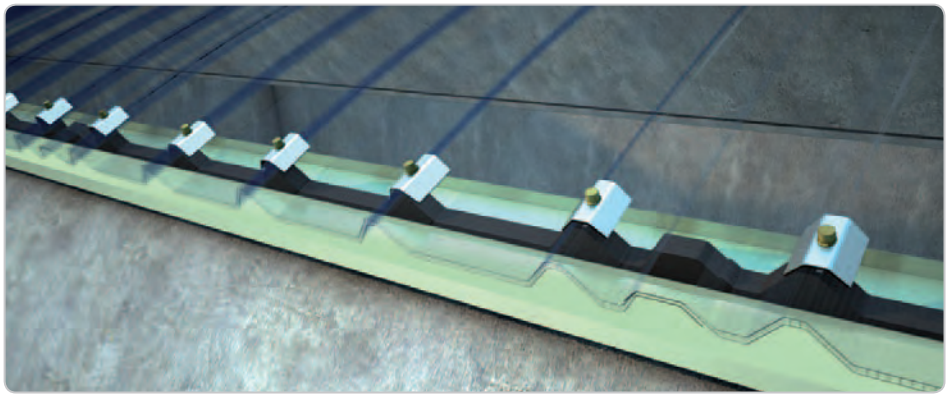
ACCESSORIES



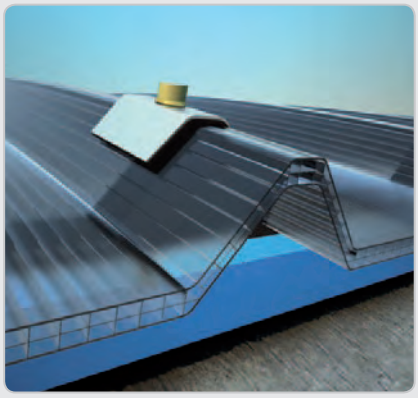
4433
Aluminium cap
with gasket

4233
Screw with 6.3x60
Vipla washer

4405
Gasket for gutter
PE-LD



DETAIL OF OVERLAP
Detail of double anchor bracket anchored to roofing structure

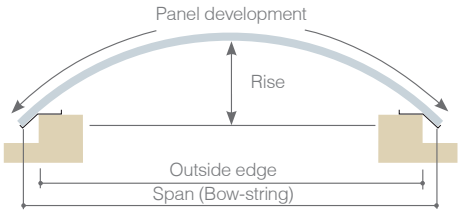


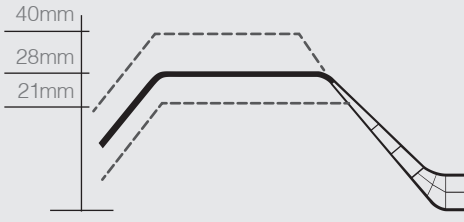
ANCHORAGE OF ROOFING
This is done by drilling and inserting a screw with Vipla washer and cap.

DEVELOPMENT TABLE

R.3.500mm

Span	Rise	Development
1.000	36	1.009
1.200	52	1.213
1.400	71	1.418
1.600	93	1.623
1.800	118	1.831
2.000	146	2.040
2.200	177	2.251
2.400	212	2.466
2.600	250	2.679
2.800	292	2.897
3.000	338	3.118





The ends of the sheets can be modified to fit the different types of roofing profile.

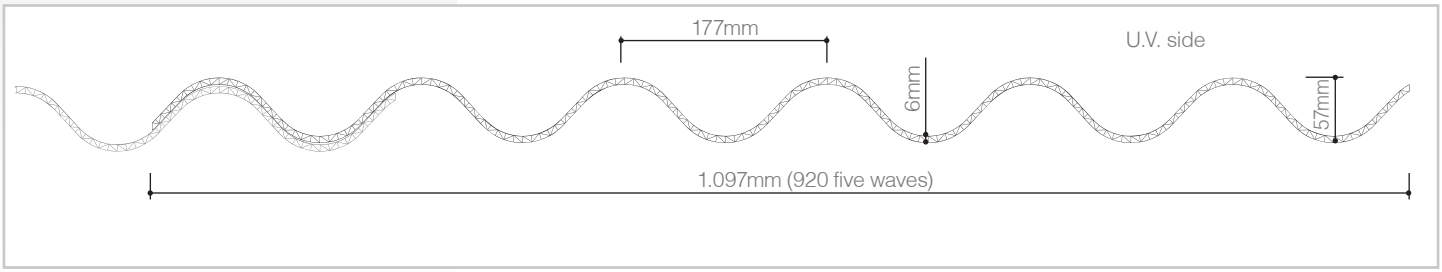
ACCESSORIES

arcoPlus®MiniGreca is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes.

Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

arcoplus® Onda

PROFILE



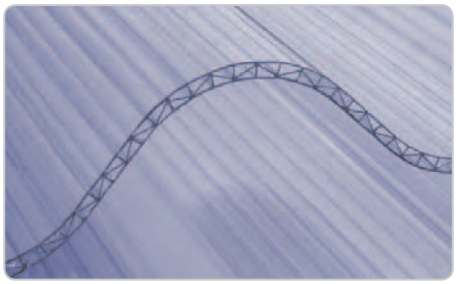
Modular system of corrugated UV protected multiwall polycarbonate for vertical walls and roofings translucent and opaque

PRODUCTION STANDARDS

thickness	6mm
profile height	51mm
corrugation pitch	177mm
structure	3 walls with “N” structure
modular width	1.050mm (875 on request)
length	5.000mm (max adviced length)
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,2 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule



OVERLAP
detail of overlapping components

ADVANTAGES

- High load resistance
- Longitudinal and lateral overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Easy to install

APPLICATIONS

- Vertical windows
- Roofing

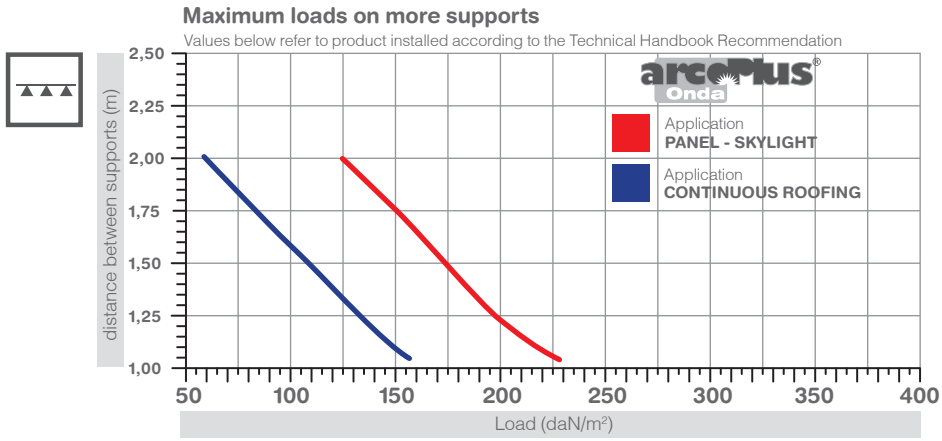
SKYLIGHT GUTTER RIDGE APPLICATION

Panels laterally overlap insulated corrugated roofing panels, or fibre cement sheets. Recommended minimum slope 7%.

ROOFING-CONTINUOUS WALL APPLICATION

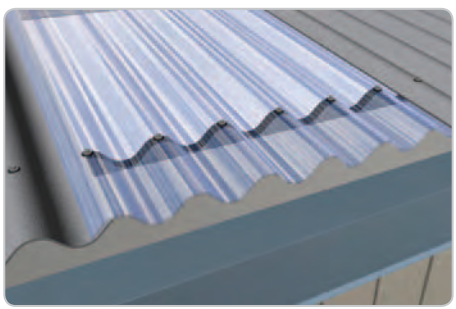
Construction of continuous roofing/wall with continuous lateral overlapping of polycarbonate panels.

FLAT SYSTEM LOAD RESISTANCE

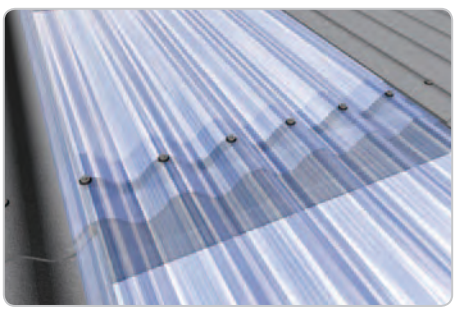


EASY AND LOW-COST INSTALLATION

The arcoPlus®Onda Piano system can be used to construct continuous translucent roofing or combined with fibre cement sheets. The panels must be installed with the UV protected side facing the exterior, to preserve the optical and mechanical properties of the material.
If one or more transverse overlaps are required, installation must start from the cover foot (bottom) and then proceed upwards towards the ridge following the slope of the roof. In particularly windy areas, two-flute overlaps are advisable.
Overlapping can be used to create gutter ridge skylights and continuous skylights with lateral panel overlap.

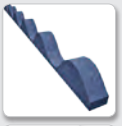


COVER FOOT
detail of gutter line with gasket.



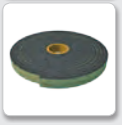
PARTICOLARE SOVRAPPOSIZIONE
detail of overlapping components.

ACCESSORIES



4256
Gasket for gutter
PE-LD

4262 6,3 X 20
4261 6,3 X 90
4374 6,3 X 120
Fixing screw with Buzzer



4232
Sealant tape
PE-LD 20x10

ACCESSORIES

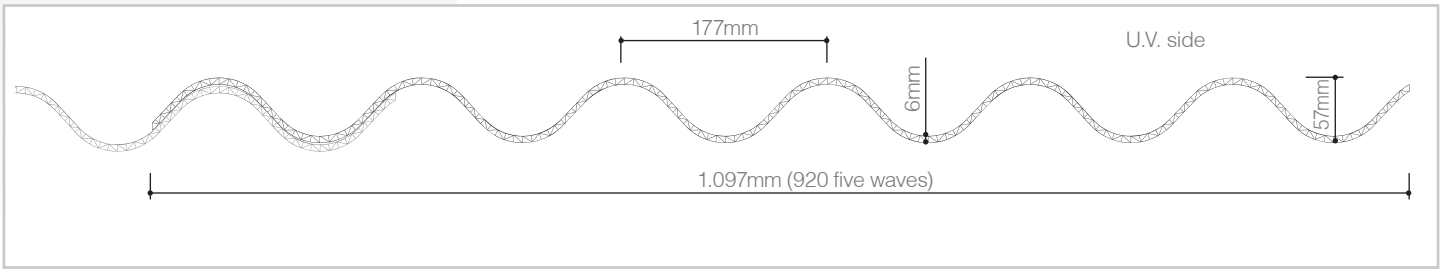
arcoPlus®Onda, system has a complete set of accessories enabling simple installation.
The structure has fixing elements, and gaskets in order to increase resistance in overlapped areas.
arcoPlus®Onda is delivered, as a standard product, with thermowelded extremities.

THERMOWELDING

arcoPlus®Onda is delivered, as a standard product, with thermowelded extremities, up to a max length of 5.000mm.

arcoPlus® Onda Curvo

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent and opaque roofing

PRODUCTION STANDARDS

thickness	6mm
profile height	51mm
corrugation pitch	177mm
structure	3 walls with "N" structure
modular width	1.050mm (875 on request)
length	5.000mm (max adviced length)
colours available	see page 11

TECHNICAL FEATURES

Thermal insulation	3,2 W/m²K
Acoustic insulation	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

CURVED SYSTEM APPLICATION

The arcoPlus®Onda Curvo system can be used to create continuous translucent roofing or used, by means of lateral overlapping, with curved fibre cement sheets or insulating panels with a curve radius of R.3,500mm.

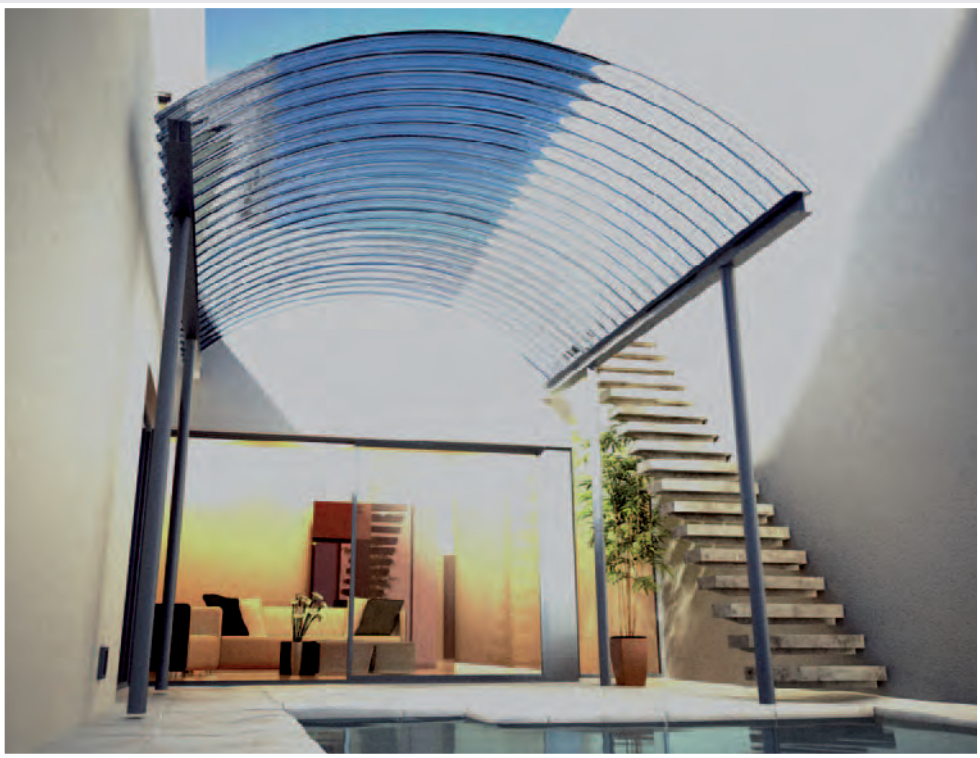
The arcoPlus®Onda profile must be installed with the UV protected side facing the exterior, to preserve the optical and mechanical properties of the material.

ADVANTAGES

- High load resistance
- Longitudinal and lateral overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

- Curved roofing



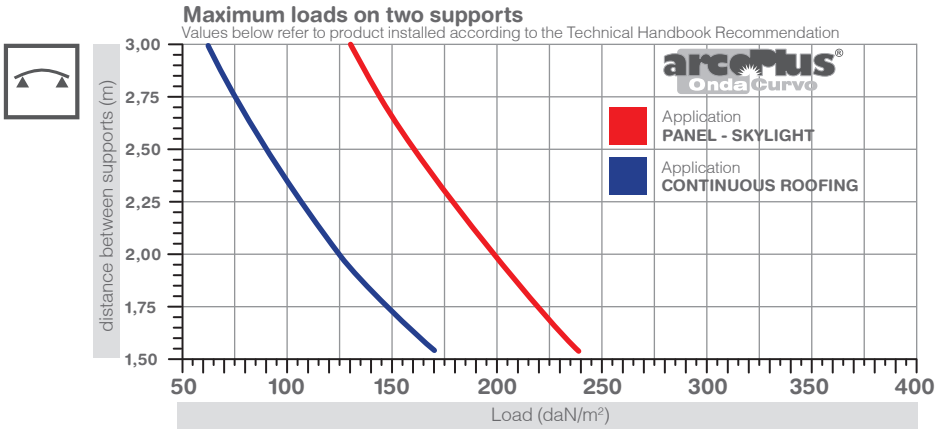
SKYLIGHT PANEL

Panels laterally overlap insulated corrugated roofing panels, or fibre cement sheets. Recommended minimum slope 7%.

CONTINUOUS ROOFING

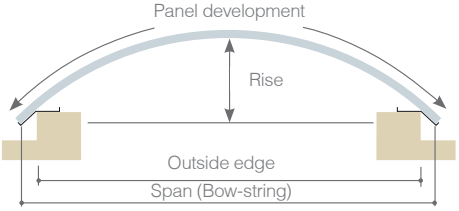
Construction of continuous roofing with continuous lateral overlapping of polycarbonate panels.
Components are manufactured with a bend radius of R.3.500mm.

CURVED SYSTEM LOAD RESISTANCE R.3.500

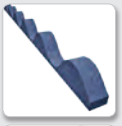


DEVELOPMENT TABLE R.3.500 mm

Span	Rise	Development
1.000	36	1.015
1.200	52	1.220
1.400	71	1.420
1.600	93	1.630
1.800	118	1.835
2.000	146	2.045
2.200	177	2.255
2.400	212	2.470
2.600	250	2.685
2.800	292	2.905
3.000	338	3.125

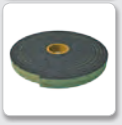


ACCESSORIES



4256
Gasket for gutter
PE-LD

4262 6,3 X 20
4261 6,3 X 90
4374 6,3 X 120
Fixing screw with Buzzer



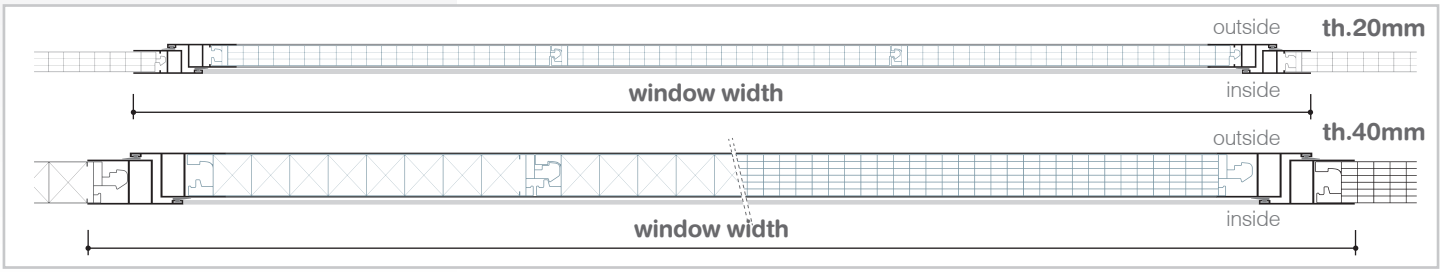
4232
Sealant tape
PE-LD 20x10

ACCESSORIES

arcoPlus®Onda, system has a complete set of accessories enabling simple installation.
The structure has fixing elements, and gaskets in order to increase resistance in overlapped areas.
arcoPlus®Onda is delivered, as a standard product, with thermowelded extremities.

arcoPlus® Openable System

PROFILE



Openable windows in UV protected polycarbonate to ventilate buildings

CE EN 14351 -1

ADVANTAGES

- High load resistance
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation
- Easy to install

APPLICATIONS

Vertical openable windows

DESCRIPTION

With the arcoPlus® opening systems, manually or motor-operated windows can be fitted into the curtain walling to ventilate the building.
These consist of suitably sized aluminium frames, which are housed in the same base profile used for the fixed part. The frames th.20mm are supplied complete with compass hinges for widths of up to 4 staves. External hinges are provided for widths of more than this (th.40mm).
The windows are supplied complete with gaskets.

The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.

PRODUCTION STANDARDS

arcoPlus 324 — th.20mm

WINDOW HEIGHT	WINDOW WIDTH			
	3 panels	4 panels	5 panels	6 panels
	1.180	1.513	1.846	2.180
till 1.000mm	*	*	*	*
1.250mm	*	*	*	*
1.500mm	*	*	*	*
1.750mm	*	*	-	-

NB:
Opening systems with a thickness of 20mm that are more than 1.513mm (4 staves) wide, are supplied with external hinges.

arcoPlus 344 arcoPlus 347 — th.40mm

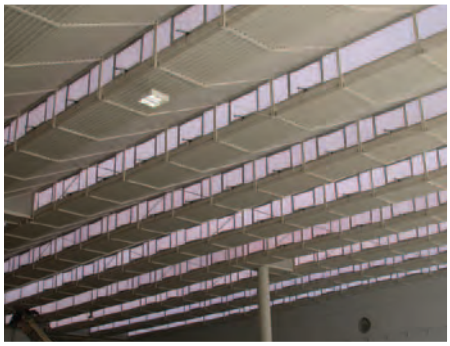
WINDOW HEIGHT	WINDOW WIDTH			
	3 panels	4 panels	5 panels	6 panels
	1.250	1.580	1.915	2.250
till 1.000mm	*	*	*	*
1.250mm	*	*	*	*
1.500mm	*	*	*	*
1.750mm	*	*	-	-
2.000mm	*	*	-	-
2.250mm	*	*	-	-
2.500mm	*	*	-	-

arcoPlus 547 CE EN 14351 -1 — th.40mm

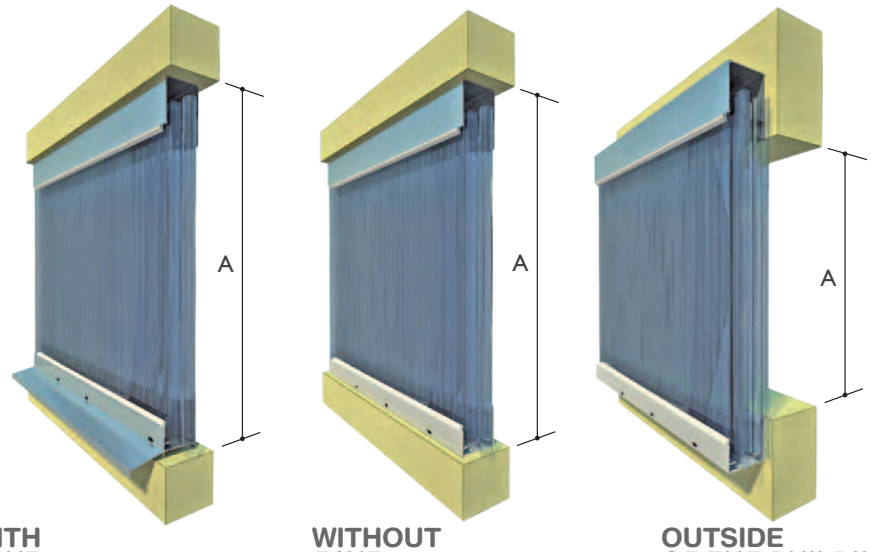
WINDOW HEIGHT	WINDOW WIDTH		
	2 panels	3 panels	4 panels
	1.250	1.750	2.250
till 1.000mm	*	*	*
1.250mm	*	*	*
1.500mm	*	*	*
1.750mm	*	*	-
2.000mm	*	*	-
2.250mm	*	*	-
2.500mm	*	-	-

NB:
Manually-operated opening systems with a thickness of 40mm are only supplied with the multi-function control.





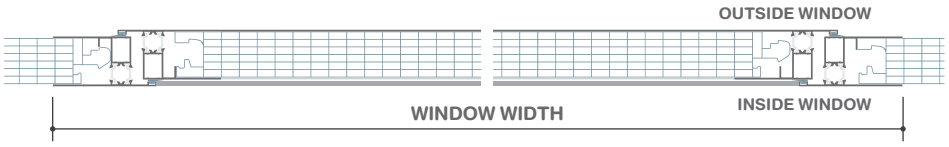
WINDOWS DIMENSION

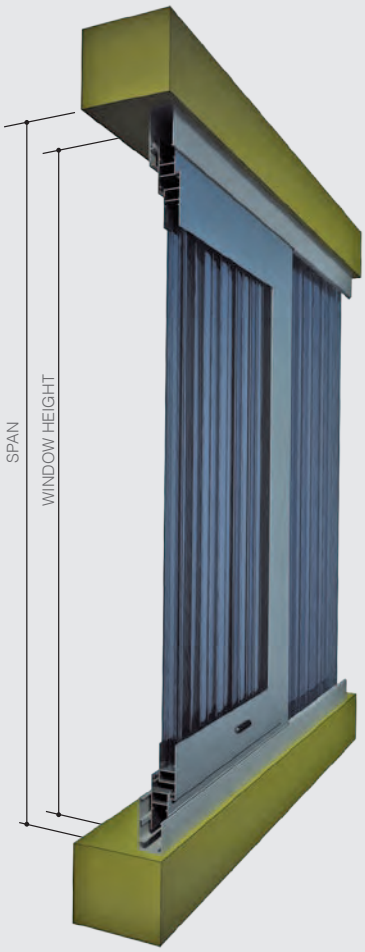


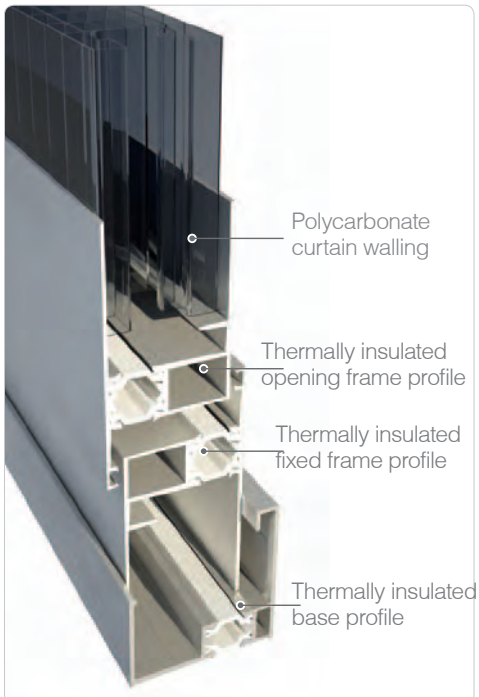
WITH EAVE
H. window th.20 = A-50mm
H. window th.40 = A-50mm
H. window th.40 = A-65mm (TT)

WITHOUT EAVE
H. window th.20 = A-40mm
H. window th.40 = A-45mm
H. window th.40 = A-60mm

OUTSIDE OF THE BUILDING
H. window th.20 = A + 80mm
H. window th.40 = A + 95mm







HINGED FRAMES WITH THERMAL ISOLATION

In order to guarantee the maximum thermal isolation and respect the air/light relation, hinged frame systems in arcoPlus® with thermally isolated aluminium profiles are available.

ACCESSORIES


4208
Electric motor


4209
Manually-operated handle


4210
Multi-function manual control


4309
External hinges for frame

3

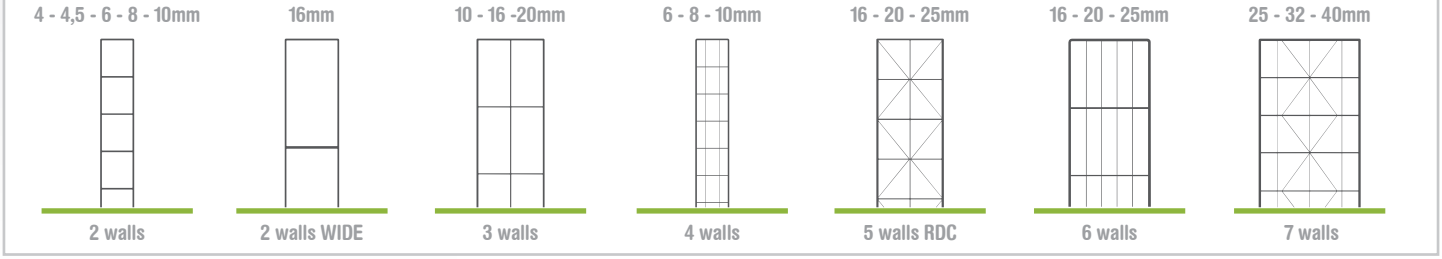
MULTIWALL SHEETS

By concentrating on technological innovation and continuous research into the choice of raw materials and new methods of achieving UV protection, we have been able to develop a wide range of multiwall sheets, each with it own specific properties, to meet the demands of the various market sectors.
These products are classified according to their design and number of walls to make it easy to find the best product for each specific application.
The multiwall structure combined with the properties of polycarbonate ensure superior thermal insulation and excellent impact strength.
Policarb® sheets have UV protection on the side facing the exterior (both sides upon request) for good ageing resistance even after prolonged exposure to the sun and atmospheric agents.
Policarb® multiwall sheets are used for roofing, glazing, greenhouses, skylights, verandas, gazebos, shelters and false ceilings.

PoliCarb®

PoliCarb®

PROFILES



Multiwall U.V. protected polycarbonate sheets

IR

PRODUCT AVAILABLE WITH IR TREATMENT

ADVANTAGES

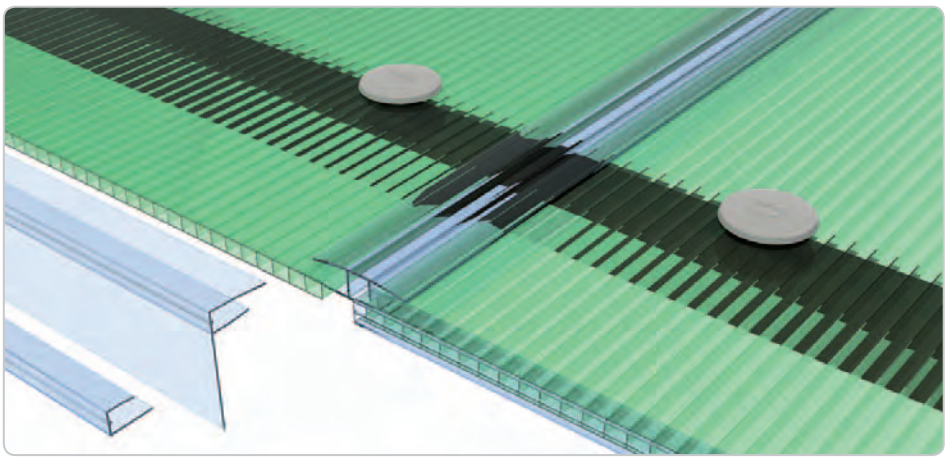
- Light transmission
- Resistance to U.V. rays and to hail
- Energy saving
- Economical
- Versatile

APPLICATIONS

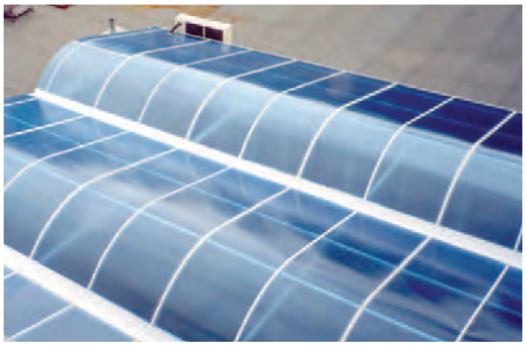
- Vertical windows
- Roofing
- Curved roofing
- Ceiling

PRODUCTION STANDARDS

	structure	thickness	weight	U value	width	lenght
	walls	mm	Kg/mq	W/m²K	mm	mm
2 WALLS						
Policarb 2P-4mm	2	4	0,80	3,9	2.100	6.000
Policarb 2P-4,5mm	2	4,5	1,00	3,9	2.100	6.000
Policarb 2P-6mm	2	6	1,30	3,6	2.100	6.000
Policarb 2P-8mm	2	8	1,50	3,3	2.100	6.000
Policarb 2P-10mm	2	10	1,70	3,0	980-1.250-2.100	6.000
Policarb 16mm WIDE	2	16	3,90	2,5	980-1.250	6.000
3 WALLS						
Policarb 3P-10mm	3	10	2,10	2,7	980-1.250-2.100	6.000
Policarb 3P-16mm	3	16	2,70	2,3	980-1.250-2.100	6.000
Policarb 3P-20mm	3	20	3,20	2,1	980-1.250-2.100	6.000
4 WALLS						
Policarb 4P-6mm	4	6	1,40	3,1	2.100	6.000
Policarb 4P-8mm	4	8	1,55	2,7	2.100	6.000
Policarb 4P-10mm	4	10	1,75	2,5	2.100	6.000
5 WALLS						
Policarb 5P-16mm RDC	5	16	2,55	2,1	980-1.250-2.100	6.000
Policarb 5P-20mm RDC	5	20	3,10	1,8	980-1.250-2.100	6.000
Policarb 5P-25mm RDC	5	25	3,10	1,6	980-1.250-2.100	6.000
6 WALLS						
Policarb 6W-16mm	6	16	3,40	1,8	980-2.100	6.000
Policarb 6W-20mm	6	20	3,70	1,6	980-2.100	6.000
Policarb 6W-25mm	6	25	3,90	1,4	980-2.100	6.000
7 WALLS						
Policarb 7W-25mm	7	25	3,40	1,4	1.250	6.000
Policarb 7W-32mm	7	32	3,70	1,2	1.250	6.000
Policarb 7W-40mm	7	40	3,90	1,1	1.250	6.000



CONTINUOUS ROOFING
Detail of roof with H-shaped connector and air cell end profiles.



TECHNICAL FEATURES

Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. protection	Coextrusion (both sides upon request)
Fire reaction EN 13501	EuroClass B-s1,d0

DESCRIPTION

The characteristic structure of the multi-wall sheets with air space inside guarantees good thermal insulation and excellent resistance to crash stress.
The external side of Policarb® is coated with U.V. protection (on request both sides) warranting resistance to aging due to atmospheric agents and UV rays.
Policarb® is used for roofing, windows, skylights, greenhouses, porches, gazebos, ceilings.

LIGHT TRANSMISSION

High-resistance pigments (opal, bronze and green) are added to the polycarbonate to achieve different light transmission values. For values see the table on page 10.

SOLAR FACTOR

The solar factor is closely linked to the sheet structure.
It is the ratio, expressed as a percentage, between the total energy transmitted to the inside and total solar radiation.

THERMAL INSULATION

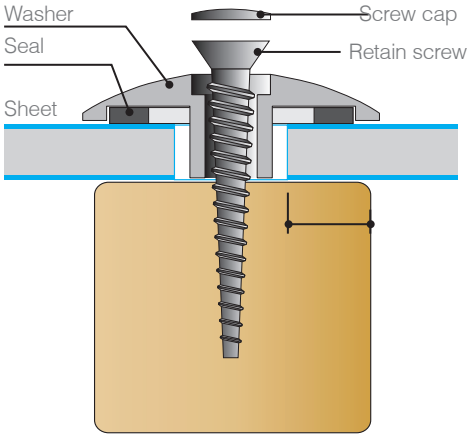
Heat loss is normally defined as thermal transmittance and referred to in physics as the “U-value”.
It is the rate of heat loss through a unitary surface per degree centigrade difference in temperature between the two sides and depends on the properties of the material of which the structure is made and the linear thermal transmittance conditions.

SELF-EXTINGUISHING

Policarb® sheets have Class 1 type approval and meet the EuroClass B-s1,d0 fire rating.

LOCK WASHERS

The sheets must be fastened to the structure using specific washers with a seal to guarantee a watertight finish and allow the material to expand due to changes in temperature.



THERMOWELDING

Policarb® sheets can be supplied welded at their ends, (up to 10mm th.) ensuring throughout time the cleanliness on the inside of the cells and greater transparency.

CLOSING TAPES

Adhesive steel tapes of varying heights for the closing of the cells are available:
- H. 19mm for sheets th. 4,5-6mm.
- H. 25mm for sheets th. 8-10mm.
- H. 38mm for sheets th. 16mm.
- H. 60mm for sheets th. 25-32-40mm.

PLANES SHEETS APPLICATION

The choice of sheet thickness is based on the requested values of snow/wind loads and on sheet dimensions.

The indicated values in the following charts (in pressure and in depression).

LOAD RESISTANCE (daN/m²) FIXED PLANE SHEET ON 4 SIDES

Policarb 2P-6mm

length (m)	width (m)			
	0.70	**0.60**	**0.50**	**0.40**
1.00	50	80	105	120
1.50	45	75	105	110
2.00	40	70	100	110
2.50	35	65	90	100
3.00	35	65	90	100

Policarb 2P-10mm

length (m)	width (m)				
	1.20	**1.00**	**0.80**	**0.70**	**0.50**
1.00	70	80	100	110	170
1.50	50	75	90	100	165
2.00	40	70	85	90	165
2.50	30	70	75	85	160
3.00	30	65	70	80	140

Policarb 4P-10mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.70**	**0.50**
1.00	60	70	85	90	145
1.50	40	65	75	80	140
2.00	30	60	70	75	135
2.50	25	60	65	70	130
3.00	25	55	60	70	115

Policarb 2P-16mm WIDE

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	175	205	220	240	275
1.50	130	185	205	220	265
2.00	110	130	145	155	200
2.50	75	110	110	120	160
3.00	75	95	95	110	155

Policarb 3P-16mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	105	135	150	175	230
1.50	70	125	140	150	220
2.00	70	120	135	140	150
2.50	70	110	110	135	145
3.00	60	90	100	130	140

Policarb 5P-16mm RDC

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	120	140	160	200	250
1.50	100	130	150	190	230
2.00	90	120	130	140	180
2.50	70	100	100	110	145
3.00	70	85	85	100	140

Policarb 5P-20mm RDC

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	140	155	180	230	280
1.50	120	140	170	200	255
2.00	100	130	140	160	205
2.50	80	120	130	140	165
3.00	80	100	100	130	160

Policarb 5P-25mm RDC

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	200	220	285	350	350
1.50	180	210	275	340	350
2.00	130	170	175	180	210
2.50	100	140	145	150	165
3.00	90	130	135	140	160

Policarb 6W-16mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	170	190	210	240	270
1.50	130	180	200	220	250
2.00	105	125	130	150	190
2.50	75	110	125	130	155
3.00	75	90	100	110	150

Policarb 6W-20mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	190	210	230	270	300
1.50	160	200	220	240	290
2.00	120	150	150	170	205
2.50	90	130	140	145	165
3.00	80	110	110	135	160

Policarb 6W-25mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	210	230	290	350	350
1.50	180	220	280	340	350
2.00	140	170	180	190	210
2.50	110	150	150	160	170
3.00	100	130	140	150	165

Policarb 7W-25mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	180	240	315	385	390
2.00	170	200	240	280	275
2.50	145	170	195	215	240
3.00	140	165	190	210	235

Policarb 7W-32mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	220	250	325	395	430
2.00	170	210	260	305	330
2.50	145	190	225	255	270
3.00	140	180	210	235	250

Policarb 7W-40mm

length (m)	width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	240	255	330	400	450
2.00	180	215	265	315	355
2.50	155	190	230	265	280
3.00	150	185	215	245	255

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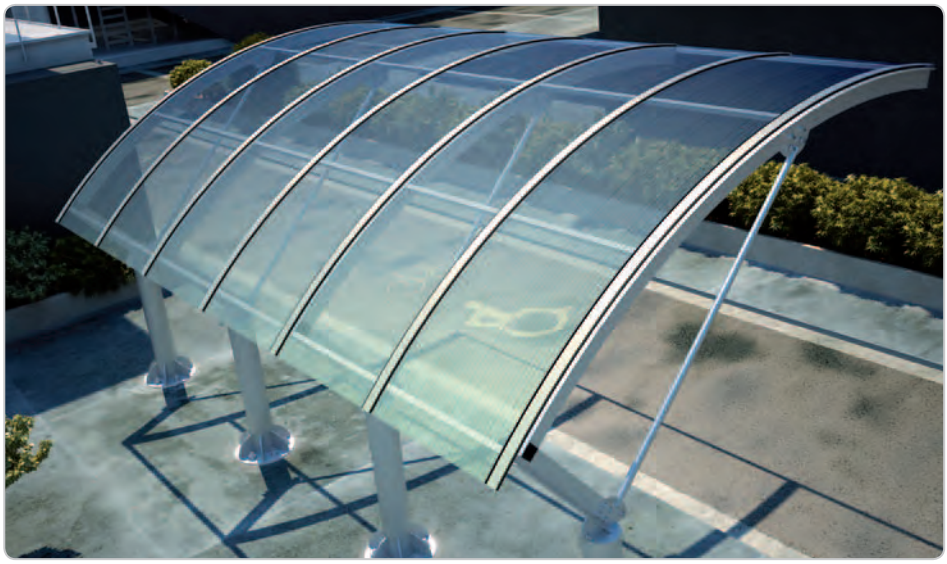
COLD BENDED SHEET APPLICATION

In particular Policarb® is used to build integral are structures green house tunnel type since its alveolar structure increases the rigidity of the sheet longitudinally bent at its ribs.



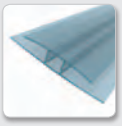
MINIMUM RADIUS OF CURVATURE

sheet thickness	4,5-2P	6-2P	10-2P	10-4P	16-3P	16-RDC	16-6W	20-RDC	20-6W	25-7W	32-7W	40-7W
radius (mm)	750	1.000	1.750	2.000	2.800	3.500	2.800	4.000	3.400	DO NOT BEND		

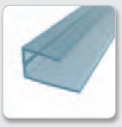
LOAD CAPACITY (daN/m²) FIXED SHEETS COLD BENDED ON 4 SIDES

	sheet thickness (mm)																			
	6	8	10	16	16RDC	6	8	10	16	16RDC	6	8	10	16	16RDC	6	8	10	16	16RDC
radius (m)	width sheet (m)																			
1.00	1.80					1.50					1.25					1.07				
1.20	1.50					1.25					1.00					0.90				
1.40	1.20	1.90				0.96	1.70				0.83	1.30				0.72	1.10			
1.60	1.00	1.65				0.82	1.27				0.68	1.06				0.60	0.92			
1.80	0.80	1.23	1.68			0.64	1.00	1.38			0.58	0.84	1.18				0.73	1.02		
2.00	0.75	1.15	1.60			0.60	0.92	1.28			0.55	0.78	1.08				0.68	0.93		
2.20	0.67	0.98	1.35				0.82	1.12				0.70	0.95					0.82		
2.40	0.60	0.88	1.23				0.70	1.00				0.84						0.74		
2.60		0.75	1.07					0.90												
2.80			0.93	1.92					1.58					1.33					1.15	
3.00			0.88	1.78					1.45					1.21					1.06	
3.20			0.83	1.62					1.32					1.11					0.97	
3.40			0.75	1.48					1.24					1.07					0.95	
3.60				1.40	1.60				1.20	1.25				1.04	1.15				0.92	1.00
3.80				1.30	1.50				1.15	1.20				1.00	1.12				0.90	1.00
4.00				1.20	1.38				1.10	1.15					1.05					0.97
4.20				1.20	1.35					1.10					1.00					0.95
4.40				1.12	1.28					1.07					0.98					0.95
4.60					1.20					1.05					0.98					0.93
4.80					1.15					1.00					0.95					0.90
load	80 daN/m²					100 daN/m²					120 daN/m²					140 daN/m²				

ACCESSORIES



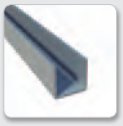
1298 th.8mm
1164 th.10mm
1165 th.16mm
1300 th.20mm
Profiles "H" U.V. protected



1296 th.8mm
1160 th.10mm
1161 th.16mm
2184 th.20mm
2260 sp.30mm
Profiles "U" U.V. protected

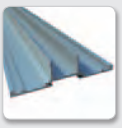
2191 th.8-10mm
2192 th.16mm
Profiles "R" U.V. protected

2193 th.8-10mm
2194 th.16mm
Profiles "F" U.V. protected

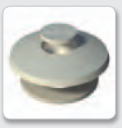


4285 th.10mm
4286 th.16mm
"U" aluminium profile

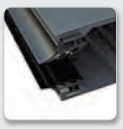
4272 th.2-10mm
4279 th.16-20mm
Upper aluminium profile



4273 th.2-10mm
4280 th.16-20mm
Side aluminium profile



4077 th.4-6mm
4076 th.8-10mm
4087 th.16mm
Washer with gasket



4276 th.3-6mm
4324 th.8-20mm
Gasket for aluminium profile

4

SOLID SHEETS

The solid polycarbonate sheets offer a combination of unsurpassed features: resilience, transparency, lightness.
As clear as glass weigh half as much and are 250 times more impact resistant. They have also, better thermal and acoustic insulation properties.
For this reason they have a high versatility and can be worked either hot or cold, thus becoming eligible for all interventions in the Construction sector and Industry.

ADVANTAGES OF SOLID SHEETS ARE:

- trasparency
- extreme impact strength
- good fire reating

PoliComp®
Scudo®

PoliComp®

← 2.500mm →

2 3 4 5

Polycarbonate solid sheets with U.V. protection on both sides

DESCRIPTION

The development of extrusion technology have allowed the construction of a plant in Europe for the production of solid polycarbonate sheets with width of 2,500 mm of various thicknesses and colors.

The polycarbonate product range is divided into solid Policomp® sheets, with UV protection on both sides. And Scudo® sheets, no UV protected ideal for industrial applications.

PRODUCTION STANDARDS

thickness (mm)	2	3	4	5	6	8	10	12
weight (Kg/m²)	2,4	3,6	4,8	6,0	7,2	9,6	12,0	14,4
width (mm)	2.050 - 2.500							
lenght (mm)	6.100							

PRODUCT AVAILABLE WITH IR TREATMENT

ADVANTAGES

- Only plant that produces up to 2.500 width
- Light transmission
- Resistance to U.V. rays and to hail
- Impact strength
- Easy to process

APPLICATIONS

- Vertical windows
- Roofing
- Curved roofing
- False ceiling

SAFETY

Scudo® sheets are used in safety glazing applications, for machine tool guards. Policomp® sheets are used instead for build roof, vertical windows and advertising signs.

LIGHTNESS

Compared to normal glass structures, Policomp® and Scudo® sheets considerably reduce the weight of the structures. A solid polycarbonate sheet weighs 50% less than a sheet of glass of the same thickness.

LIGHT TRANSMISSION

Policomp® sheets have good light transmission properties and are also available in bronze and opal.

ENERGY SAVING

Policomp® sheets provide excellent thermal insulation, an important factor in reducing fuel consumption for heating buildings.

DURABILITY

Policomp® sheets are guaranteed for durability. (see terms of warranty)

COEXTRUSION

A layer of high-performing UV absorber is coextruded onto both sides of Policomp® sheets. This filters the light and protects the polymer against the effects of ageing, ensuring excellent impact strength even after prolonged exposure to sunlight.

UV PROTECTION ON TWO SIDES

Policomp® sheets have UV protection on both sides.

SELF-EXTINGUISHING

The solid polycarbonate sheets have Class1 type approval in thickness from 8mm to 12mm, and meet the EuroClass B-s2,d0 fire rating in accordance with the European legislation for thickness from 2mm to 6mm.

PHYSICAL PROPERTIES

	value	unit	test metod
density	1,2	gr/cm^3	ISO 1183
moisture absorption 23°C	0,15	%	ISO 62-4
refractive index 20°C	1.586	-	ISO 489

MECHANICAL PROPERTIES

	value	unit	test metod
resistance to tensile stress	>60	MPa	ISO 527-2
elongation at yield	6	%	ISO 527-2
elongation at break	>70	%	ISO 527-2
elastic modulus	2.400	MPa	ISO 527-2
limiting flexural stress	ca.90	MPa	ISO 178
impact strength (Charpy, unnotched)	no break	KJ/m^2	ISO 179
impact strength (Charpy, notched)	ca.11	KJ/m^2	ISO 179

THERMAL PROPERTIES

	value	unit	test metod
Vicat softening temperature	148	°C	ISO 306
thermal conductivity	0,2	W/m°C	DIN 52612
linear thermal expansion	0,065	mm/m°C	DIN 53752

ELECTRICAL PROPERTIES

	value	unit	test metod
dielectric strength	35	kV/mm	IEC 60243-1
volume resistivity	0,15	%	ISO 62-4
surface resistivity	1.586	-	ISO 489

LIGHT TRANSMISSION (%)

thickness (mm)	2	3	4	5	6	8	10	12
color								
transparent	91	90	90	90	88	86	80	80
bronze	-	44	48	51	50	-	-	-
green	-	-	28	-	42	-	-	-
blue	-	-	-	-	11	-	-	-
opal	-	53	50	40	38	-	-	-

THERMAL INSULATION U (W/m^{2}K)

thickness (mm)	2	3	4	5	6	8	10	12
Policomp	5,66	5,49	5,33	5,21	5,09	4,84	4,61	4,35
Glass	-	5,87	5,82	5,80	5,77	5,71	-	-

ACOUSTIC INSULATION (dB)

thickness (mm)	2	3	4	5	6	8	10	12
Value	25	26	27	28	29	31	33	34

WEIGHT (Kg/m^2)

thickness (mm)	2	3	4	5	6	8	10	12
Policomp	2,4	3,6	4,8	6,0	7,2	9,6	12,0	14,4
Glass	5	7,5	10	12	15	20	25	30

The solid polycarbonate sheets in the extensive Policomp® range offer extreme transparency.
They are ideal for applications that require superior thermal and sound insulation combined with a lightweight structure with good impact strength.
Policomp® sheets are as clear as glass, weigh half as much and are 250 times more impact resistant.

APPLICATION OF FLAT SHEETS

Solid polycarbonate sheets can be installed in most PVC, wood, steel and aluminium structures and frames.

The frame must hold the sheet in place while allowing it to expand. The choice of sheet thickness depends on the load value required. According to the size of the sheet, from table A, the effective area and also the thickness will be calculated.

Table B can be used to calculate the thickness of the sheet to be used according to the size of the sheet (AREA) and the required load value.

The values shown in table B (positive and negative loads) have been calculated for sheets fixed on four sides, with a maximum bend value (rise) of 50mm.

SHEET SIZE

sheet length (m) \ sheet width (m)	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
0.25	A1	A1	A1	A1	A1	A1	A1	A1
0.50	A1	A2	A3	A4	A4	A4	A4	A4
0.75	A1	A3	A5	A6	A7	A7	A7	A7
1.00	A1	A4	A6	A8	A9	A9	A10	A10
1.25	A1	A4	A7	A9	A10	A11	A12	A13
1.50	A1	A4	A7	A9	A11	A13	A14	A15
1.75	A1	A4	A7	A10	A12	A14	A16	A17
2.00	A1	A4	A7	A10	A13	A15	A17	A18
2.25	A1	A4	A7	A10	A13	A16	A18	A19
2.50	A1	A4	A7	A10	A14	A16	A19	
2.75	A1	A4	A7	A11	A14	A16	A19	
3.00	A1	A4	A7	A11	A14	A17	A19	
3.25	A1	A4	A7	A11	A14	A17		
3.50	A1	A4	A7	A11	A14	A17		
3.75	A1	A4	A7	A11	A14	A17		
4.00	A1	A4	A7	A11	A14	A17		
4.25	A1	A4	A7	A11	A14	A17		
4.50	A1	A4	A7	A11	A14	A17		
4.75	A1	A4	A7	A11	A14	A17		
5.00	A1	A4	A7	A11	A14	A17		

TABLE A

CHOICE OF THICKNESS

AREA \ load (daN/m²)	60	80	100	120	140
A1	3	3	3	3	3
A2	3	3	4	4	4
A3	4	4	4	4	5
A4	4	4	5	5	6
A5	5	5	5	5	6
A6	5	6	6	6	8
A7	6	6	8	8	8
A8	6	6	8	8	8
A9	8	8	8	8	10
A10	8	8	10	10	10
A11	10	10	10	10	12
A12	10	10	10	12	12
A13	10	10	10	12	
A14	10	12	12		
A15	10	12	12		
A16	10	12	12		
A17	12	12			
A18	12	12			
A19	12				

TABLE B

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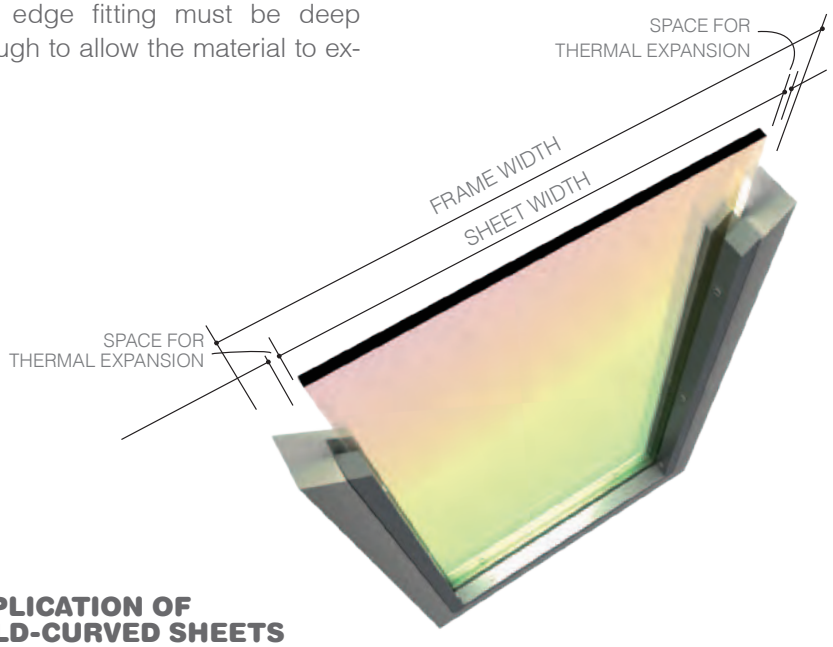
INSTALLATION GUIDELINES

When cutting sheets to allow for thermal expansion special care must be taken to avoid applying stress to the material.
Tolerance must be provided both widthwise and lengthwise.
The table at the side shows the sheet cutting values, depending on the size of the frame, in order to allow for thermal expansion.
The edge fitting must be deep enough to allow the material to expand and also to prevent the sheet from escaping from the frame.

frame (mm)	sheet cut (mm)
300 - 1.000	3
1.000 - 1.300	4
1.300 - 1.700	5
1.700 - 2.000	6
2.000 - 2.300	7
2.300 - 2.700	8
2.700 - 3.000	9

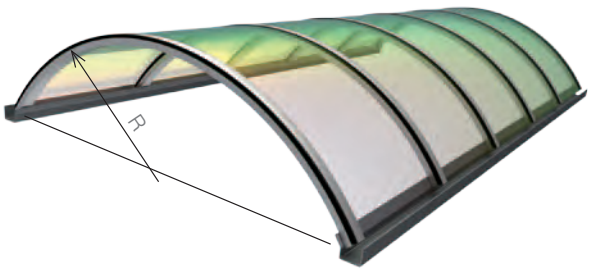


APPLICATION OF COLD-CURVED SHEETS

Policomp® is ideal for building integral arch or tunnel structures.
The minimum bend radius is 150 times the thickness of the sheet.

Example:
Sheet thickness: 3mm
Min. radius = 3 x150= 450mm

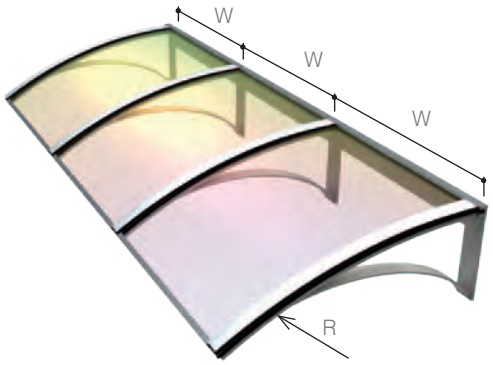
The choice of sheet thickness depends on the bend radius R but also on the width of the sheet W. The length L must always be greater than the width W.



MINIMUM BEND RADIUS

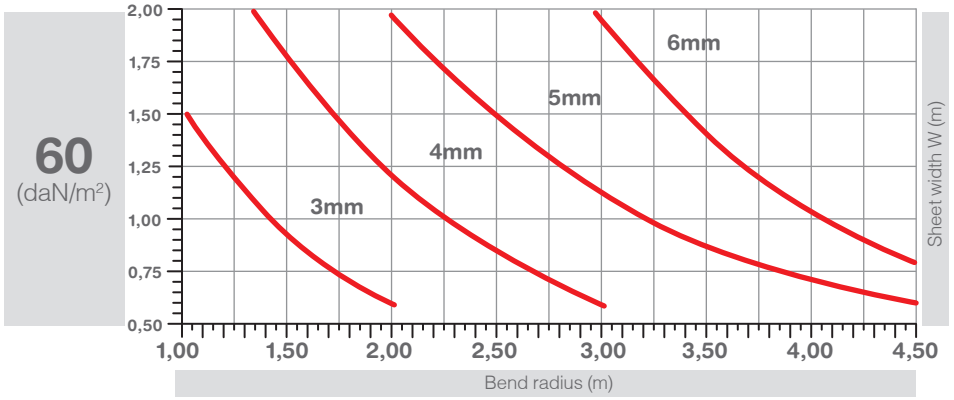
thickness (mm)	2	3	4	5	6	8	10	12
radius (mm)	300	450	600	750	900	1.200	1.500	1.700

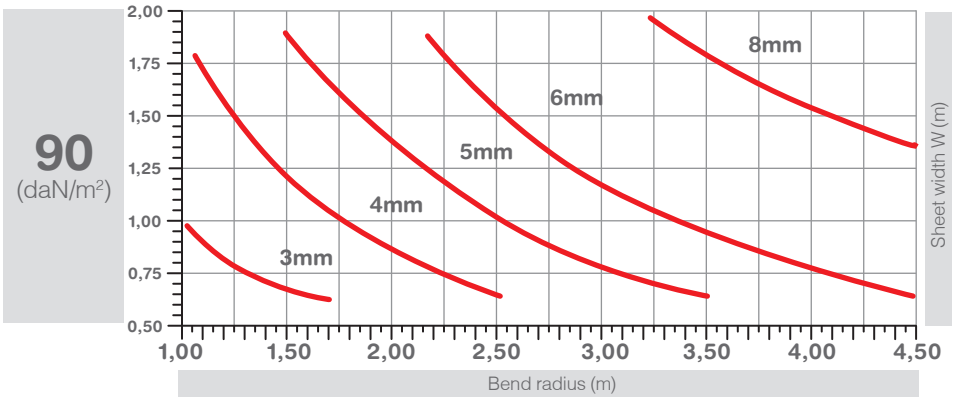
The graphs indicate the appropriate sheet thickness, for different bend radii, under different load conditions.
These values have been calculated with sheets fixed on three sides.

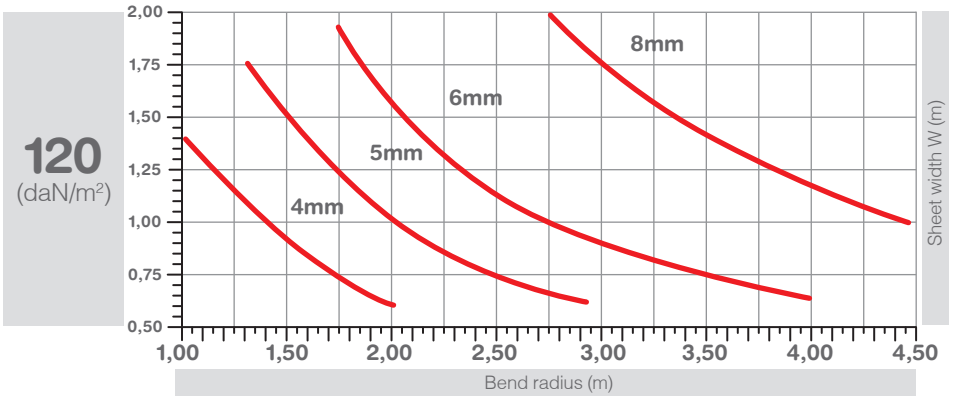


LOAD RESISTANCE

PoliComp®







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Scudo®

Polycarbonate solid sheets WITHOUT UV PROTECTION

MATERIAL PROCESSING

CUTTING

Policomp® and Scudo® sheets can be cold-formed mechanically using standard high-speed tools to perform cutting, bending and drilling.
Notches, which undermine the mechanical properties of the polycarbonate, are not recommended.

	circular saw	belt saw	milling machine
rake angle	20°- 30°	20°- 30°	20°- 30°
angle of inclination	15°	0,5°	0°- 5°
cutting speed (m/min)	1.800 - 2.400	600 - 1.000	100 - 500
feed speed (m/min)	19 - 25	20 - 25	0,1 - 0,5
distance between teeth (mm)	2 - 5	1,5 - 2,5	-

DRILLING

Policomp® and Scudo® sheets can be drilled using standard drilling machines that meet the following specifications:

parameter	value
rake angle α	5°-8°
angle of tip φ	90°-130°
angle of blade β	approx. 30°
angle of inclination γ	3°-5°
cutting speed	10-60 m/min
tip speed	0,1-0,5 mm/rev

Drill sheets as follows to avoid any damage during machining:
Drill the hole at a distance from the edge of the sheet equal to at least 1.5 times the diameter of the hole.
Do not use cutting oil.
Use threading if there is no other alternative. Sheets could break after drilling.

THERMOFORMING AND HOT-CURVING

Remove the protective film before thermoforming and pre-heat the material to 120°C to eliminate any moisture that has been absorbed.
The use of an air circulating oven with temperature control is recommended.
The air must circulate between the sheets.
Pre-heating times can be reduced by one third by storing the sheets in a dry place. Since the dry sheets start to re-absorb moisture as soon as they cool down to below 100°C, thermoforming must be performed immediately after drying.
Hot curving must be performed at a temperature of between 155°C and 165°C.

GLUING SHEETS

Neutral and compatible with polycarbonate adhesives should be used to glue the solid polycarbonate sheets.

CLEANING OF SURFACES

We recommend the use of warm water and a soft cloth to clean Policomp® and Scudo® sheets.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Heat insulation
- Self-supporting

APPLICATIONS

- Room partitions
- False ceilings
- Machinery protection guards

GENERAL TERMS AND CONDITIONS OF SALE

dott.gallina

1) ORDERS:
Orders are only valid if they refer to the price-list currently in force and are signed by way of the buyer's full acceptance of these terms and conditions of sale. The order is binding on the buyer and may only be cancelled with the written consent of Dott. Gallina S.r.l., subject to repayment of all costs claimed by the latter. The order becomes effective upon receipt of the confirmation of order signed by the buyer. All measurements in the order are taken as having been checked and verified by the buyer and are the responsibility thereof. Likewise, the buyer is responsible for controlling and verifying the qualities and purchase prices agreed upon with the seller.

2) DELIVERY:
The delivery date specified in the order and in the confirmation of order is indicative and thus not binding on Dott. Gallina S.r.l. Delays in delivery shall not give rise to any refund, compensation for damages or cancellation of the order. The buyer may not refuse to accept the goods until 45 days after the scheduled delivery date. After that date the buyer may cancel the order or insist upon delivery; in either case, notwithstanding the provisions of the law, the parties expressly waive any claims for compensation. Dott. Gallina S.r.l. shall not be answerable for delays due to unforeseeable circumstances, including accidents, machine breakdowns, strikes, lack of deliveries of raw materials, etc.

3) PACKAGING:
Unless otherwise expressly requested all materials shall be supplied in white polyethylene packaging and closed at the top. Where possible, but not necessarily, materials shall be strapped to pallets.

4) TRANSPORTATION:
Goods are transported at the buyer's risk, even though they are delivered free to destination and unloaded from the vehicle. Any complaints in connection with differences in the goods supplied, shortage of packages or damage must be reported to the carrier immediately at the time of delivery and clearly indicated in the transport document. Any complaints, including those in connection with orders made through an intermediary, must be made in writing directly to Dott. Gallina S.r.l. and sent by means of registered post to reach the latter within 8 days from the date of delivery.

5) WARRANTY:
(See terms and conditions of warranty). The warranty period starts from the date of invoice and the warranty is valid in accordance with the terms set forth in the certificates issued by the company. Dott. Gallina S.r.l. reserves the right to make any changes it deems necessary and without prior notice and shall not be liable for any direct or indirect loss or damage to persons or property arising in connection with the use of the product.

6) TOLERANCE:
Unless otherwise specified, sizes may vary by ± 2 mm/m with a minimum of ± 5 mm. Under no circumstances are product weights binding. Weights are provided to assist customers in their choice of product.

7) PAYMENT:
Dott. Gallina S.r.l. shall only accept new orders if all previous materials supplied have been paid for. Payments shall be made according to the agreed terms of payment and shall not be suspended or postponed for any reason or in connection with any claim. In the event of delayed payment interest will be charged at the equivalent of the three-month Euribor rate plus seven percent applicable as from the scheduled payment date up until the actual date on which said payment is made. Only under exceptional circumstances may the buyer request to postpone the contractual and confirmed delivery date, in which case the buyer shall agree to the goods being invoiced and to the relative payment falling due as from the date on which the goods become ready, in addition to sustaining all costs of handling and storage and any other related charges

8) DISPUTES:
Any disputes arising in connection with these terms and conditions of sale shall be brought exclusively before the Court of Turin for settlement.