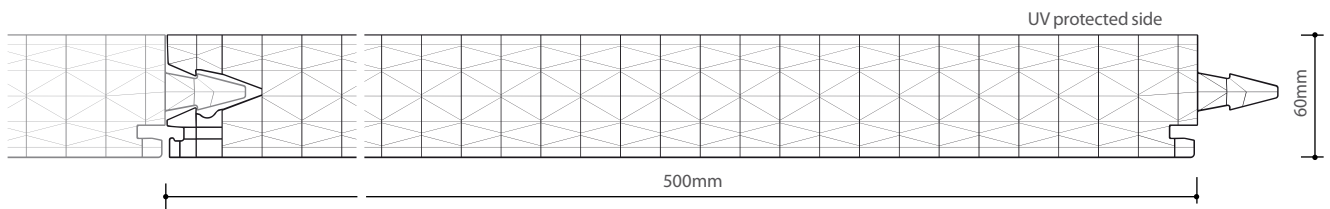# arco**Wall**®
5613

Multiwall polycarbonate modular system

Continuous facades
Translucent curtain walls
High thermal insulation

dott.gallina
POLYCARBONATE SYSTEMS & SHEETS

UV protected side

60mm

500mm

Modular system of multiwall UV protected polycarbonate for vertical translucent walls

PRODUCTION STANDARDS

Thickness	60mm
Structure	13 walls
Modular width	500mm
Standard colors	see page 11
Special colors	on demand
Panel length	no limit

TECHNICAL FEATURES

Thermal transmittance U	0,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	22 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
UV rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

SPECIAL TREATMENTS

AR · ANTIGRAFF · UV TECH · IR · CALEIDO · UV-MATT · BC BICOLOR

DESCRIPTION

arcoWall®5613 is a modular system of coextruded 13 walls polycarbonate panels with a thickness of 60mm, and exclusive aluminum profiles for variable solutions that can be customized for the needs of any project.

The self-bearing translucent walls system, arcoWall®5613, comes from the experience of over 50 years of our company. We are constantly engaged in exploring alternatives in the building market as well as the creation of unique and innovative systems.

APPLICATIONS

- High-performance continuous facades
- Vertical windows
- Translucent curtain walls

CERTIFICATIONS

CC FAT · COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

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DIBt Ab Zulassung n°Z-10.1-662 published in 18/05/2016

ADVANTAGES
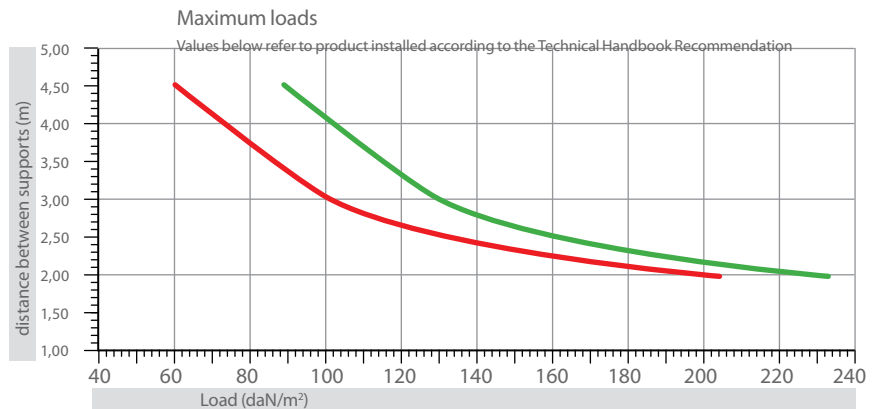
Easy and low-cost installation

Thermal bridge interruption

Can be applied to the openable systems

Light transmission

High insulation coefficient

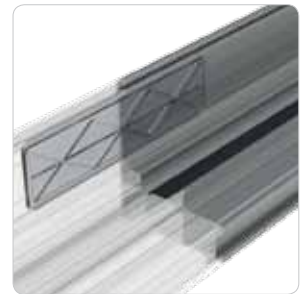High wind resistance

Fire reaction EN 13501-1 EuroClass B-s1,d0

LOAD RESISTANCE

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

Chart: distance between supports (m) on vertical axis (1,00 to 5,00); Load (daN/m²) on horizontal axis (40 to 240)
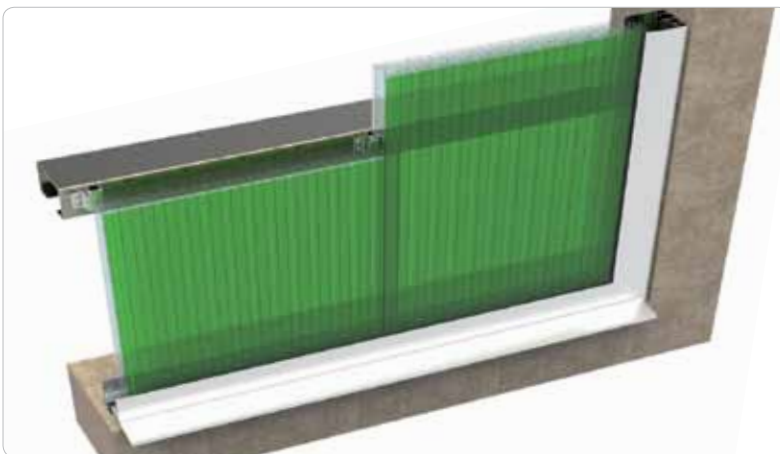
WALL SYSTEM

arcoWall®5613 allows the realization of real "translucent walls" with high thermal and acoustic characteristics without width limits and without the need for secondary support structures for spans up to 3.5m in height. For installations exceeding 3.5m, a suitable section-breaker profile must be installed to which the arcoWall®5613 panels can then be fixed. It is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion.

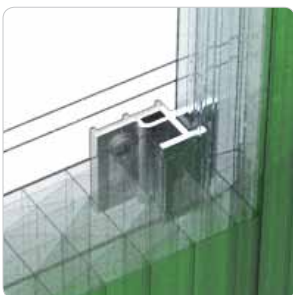Thanks to the multiwall structure of the modular panels, the aesthetic appearance, both in the presence of backlight and of grazing light, is extremely unique. The chromatic effects can be modulated endlessly in terms of coloring and of light transmission. The external and internal surfaces can be of different colors, which allows managing the light filter according to the needs of natural lighting.

The inner surface can be coextruded with an anti-reflective treatment, which is highly effective in reducing the unpleasant effects of artificial light reflections.

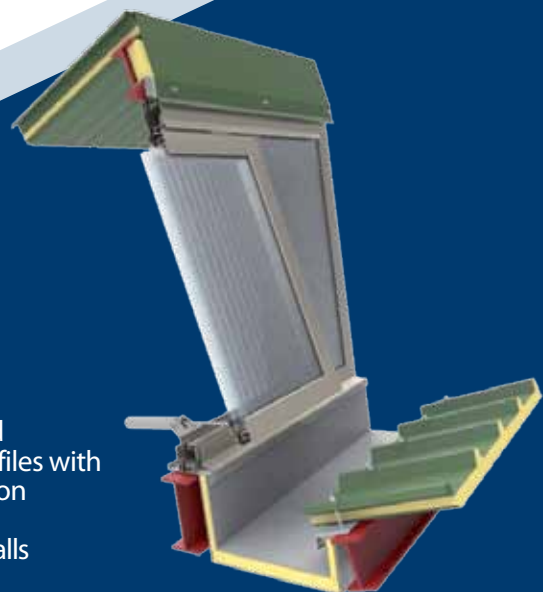JOINING PROFILES WITH FLAT ALIGNMENT
Flat aligner for base

SIDE DETAIL COD.4800+4809
profile with straight flap

ALU BRACKET COD.4715
For anchoring panels to intermediate structures

OPENABLE SYSTEM
WITH THERMAL BREAK

There are available openable systems arcoWall®5613 realized with innovative aluminum profiles with thermal break that allow creation of openable systems for indoor natural ventilation of curtain walls

HIGHER AND HIGHER
SPECIAL SYSTEM FOR INFINITE VERTICAL FAÇADE

With the aim to best meet the design-buliding requirements, we present the new series of profiles conceived specifically for achieving translucent facades with extra height, which could be impossible to realize before now. Thanks to the new aluminum profiles, our polycarbonate panels arcoWall® become the ideal solution for vertical applications with oversize heights... Furthermore do not forget the infinite possibilities offered by special treatments to customize the coloring or surface finish of panels, giving freedom to architectural creativity.
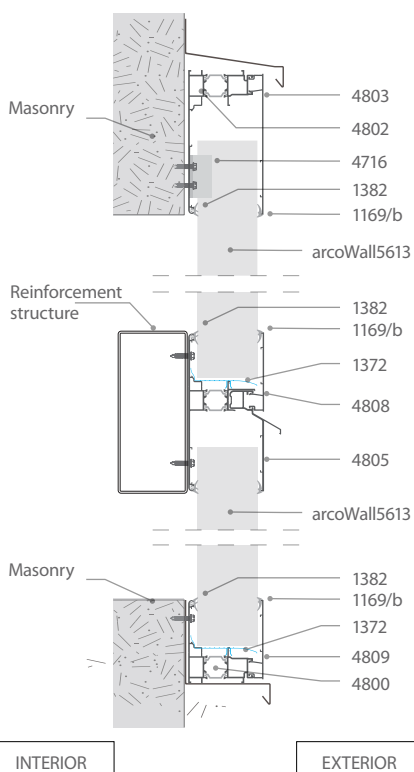

UPPER PROFILE FOR OVERSIZE EIGHTS

FACADE UP T0 16M HIGHT

Installing the special upper-profile in aluminium for oversize lenght complete with the upper plane flap (cod. 4802+4803), you can realize translucent vertical curtain-walls with a maximum height of up to 16 meters, placing full size panels of such a length without any horizontal interruptions
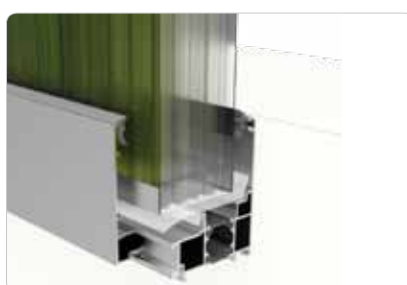
WALL SECTION EXAMPLE

Masonry

4803
4802
4716
1382
1169/b

arcoWall5613

Reinforcement structure

1382
1169/b

1372

4808

4805

arcoWall5613

Masonry

1382
1169/b
1372
4809
4800

INTERIOR   EXTERIOR

HORIZONTAL JOINING PROFILE

FACADE WITHOUT HIGHT LIMIT

The additional inclusion in the façade-paneling of the horizontal joining profile (cod. 4802+4803+4808+4805) allows to achive facades with infinite height.
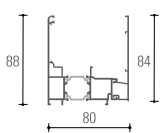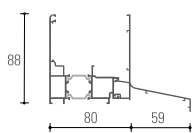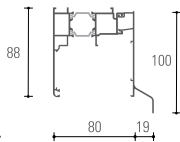

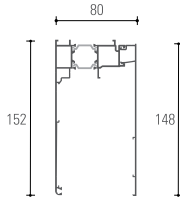BASE/SIDE PROFILE

ACCESSORIES

METAL PROFILES

4800+4809
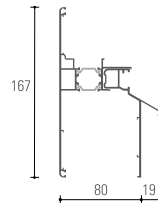ALU base/upper/ side profile with thermal break for th.60mm panel with straight flap

4800+4831
ALU base/upper/ side profile with thermal break for th.60mm panel with base

4800+4819
ALU base/upper/ side profile with thermal break for th.60mm panel with upper straight flap

4802+4803
Upper snap profile TB th.60mm for OVERSIZE HEIGHTS

4805+4808
Horizontal TB joining profile for OVERSIZE HEIGHTS for panel th.60mm with base straight flap with drip sill

The air cells of the polycarbonate panels must be sealed using vented aluminum tape. This permits correct ventilation and prevents soiling on the inside of the panels. In order to ensure maximum thermal insulation and respect for the Window-to-Wall Ratio (WWR), there are available openable systems arcoWall®5613 realized with innovative aluminum profiles with thermal break.
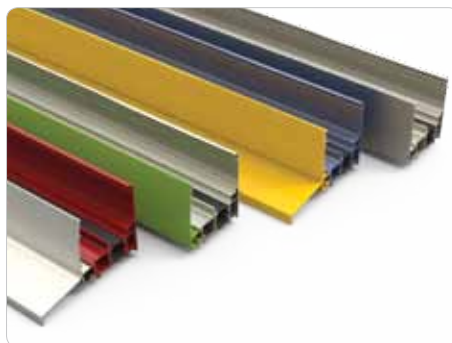
Thanks to the modularity of frame profiles 4800/4832/4846, it is possible to choose both the shape and the color of the front flap. While maintaining the same functionality, all 3 versions can be provided with curved or straight silhouette, depending on the design needs.

In addition to standard anodized surface-finish, the profiles can be painted with any shade. Moreover an additional feature allows to diversify the color between the indoor and outdoor side by giving two different nuances for base profile (visible in indoor environments) and for flap (exposed to the outside).

DIFFERENT TYPES OF FLAPS
Curved and straight flaps

DIFFERENT COLORS OF PROFILES
Diversify the color between inner / outer side

4800
ALU base/upper/side profile with thermal break

4809 (+4800)
Base/side straight flap

4831 (+4800)
Base straight flap with drip sill

4819 (+4800)
Upper straight flap with drip sill

4801 (+4800)
Upper curved flap with drip sill

4804 (+4800)
Base/side curved flap

4807 (+4800)
Base curved flap with drip sill

4802+4803
Upper snap profile TB for OVERSIZE HEIGHTS

4805+4808
Horizontal TB joining profile for OVERSIZE HEIGHTS

4715/60
4715/120
Alu bracket length 60/120mm

4716 (+4802)
Alu bracket length 45mm

1372
Internal PE base dripping eave

4828
Flat aligner for base TB profiles

1382
Snap-fitted rear seal

1384
Sled-scroll rear seal

1169/b
Slip-coated rubber seal strip

4951
Taping surcharge

TREATMENTS

BC BICOLOR — ONE PANEL | TWO COLORS

The arcoPlus® panels can be produced also with different colors on the two sides, this is due to the extrusion of two different masses, one for the inner surface and another for the external one. The particular production's technology allows to manage simultaneously the light transmission and color effect, maximizing the projects visual impact.

AG ANTIGRAFF — ANTI-SCRATCH ANTI-GRAFFITI

in the location where the polycarbonate panels are installed exists the risk of damage by vandalism as spray paint or kind of surface scratch, the better solution is the "AG-ANTIGRAFF" treatment. It create an anti-graffiti and anti-scratch surface, with a repellent barrier to oils and water prevents the "graffiti" to penetrate deeply into the substrate and will make it easy to remove.

CALEIDO — CALEIDO PROJECT

To meet the requirements of architectural design is born the project Caleido oriented to create panels with customized colors. The arcoPlus® and arcoWall® panels can be produced with an infinite range of nuances, leaving the traditional few standard PC colors. Thanks to our production capacity, we can pull out the desired shade from a sample and re-create it in the polycarbonate mass.

UV UV-MATT — UV-MATT SILK DIFFUSING SURFACE

In order to avoid surface's glares that usually characterize the PC building covering and to get a new material sensation, we can coextrude a special matt and UV-protected finish on the outer wall arcoPlus®'s panels. It called UV-protected MATT. This treatment allows also a better distribution of natural light in the interiors and give a special one silk filltouch.

IR — SOLAR CONTROL

The panels spiked with IR treatment can absorb the portion of light corresponding to the infrared spectrum (780-1400nm), blocking solar heat but letting pass the brightness. Using these products, you can reduce up to 25% increase in the internal temperature caused by the greenhouse effect and you can keep the climate comfort.

AR — AR ANTI-GLARE

arcoPlus® panels with AR coating are characterized by a kind of coextrusion on the inner wall which diffuses the sunlight. It reduces the passage of heat but moreover this innovative surface prevents glares or flash, thus improving the environment's visual comfort of the locations they are installed.

UV TECH — SPECIAL SOLAR EXPOSURE WARRANTY

arcoPlus® with UV-TECH treatment is characterized by an extended warranty up to 15 years, due to a protective coextrusion on the external side, thanks to the special UV-absorbers more chemically stable and effective over time.

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POLYCARBONATE SYSTEMS & SHEETS