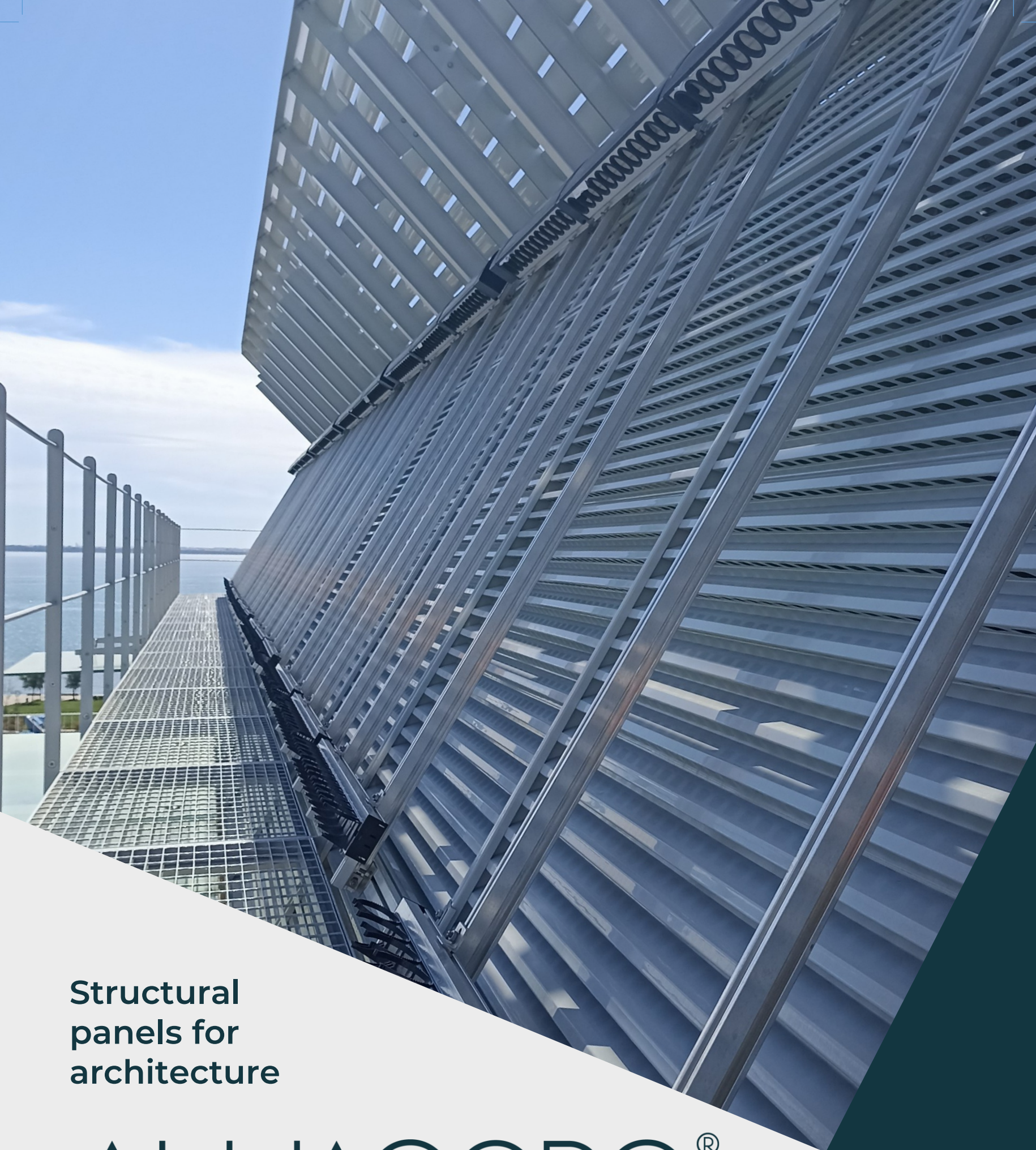




Structural
panels for
architecture

ALUACERO[®]

aluacero®

Panels

The wide spectrum of projects built on all five continents with **Aluacero Panels** demonstrates the potential of its technology. Neither the sun's rays, nor rain, nor wind have a significant effect on them, and since they have sloping fronts, they do not accumulate dirt either.



CIERRES DEL HOGAR: CROSSING FRONTIERS

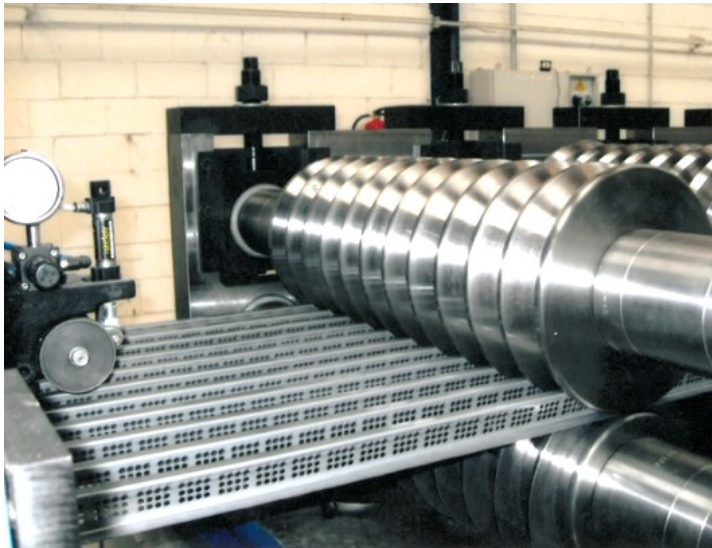


Cierres del Hogar has an extensive range of products that it develops, manufactures and distributes, and is internationally recognized as a competent and reliable supplier with over 40 years of experience. We can offer the reassuring security of being at our customers' disposal at all times, offering a personalized service with a working technique and know-how in the manufacture of environmental acoustic panels that no other company can offer. It has a network of distributors throughout Europe, Latin America, the Middle East and Africa. Cierres del Hogar is not just another supplier, but a strategic partner for your business.



Investing in future

Microperforated model manufacturing



Windows model manufacturing



With experience and technology we can offer the highest quality with our Aluacero panels.



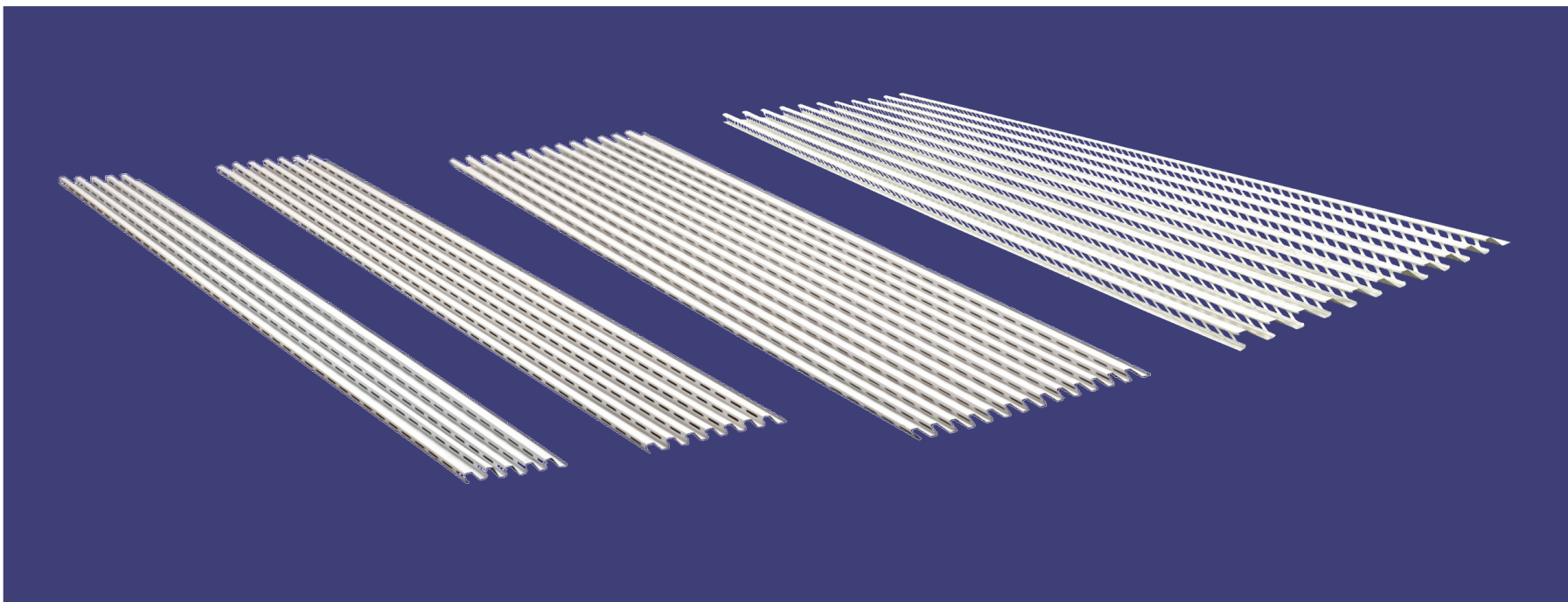
ALUACERO

Frequently, the concept "**ventilation grilles**" has always been associated with extruded aluminum or folded steel blades. This term becomes more extensive if wood or PVC slats are included.

In order to solve the great inconveniences of assembling slats one by one, Aluacero panels offer effective and quality solutions, **achieving guarantee levels unthinkable years ago**: the changes that have arrived are confirmed by the variety of examples shown in this catalog manufactured with Aluacero structural panels.

Manufacturing technical characteristics

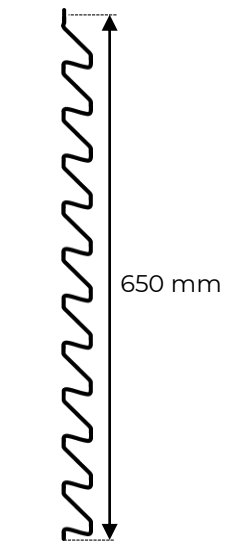
Aluacero panels are not perforated wavy sheets, they are not comparable to any other product on the market. Their manufacturing process is the forming by folding one over the other of a steel or aluminium coil profiled in a continuous line process. The cold deformation implies a hardening of the metal and an increase in the tensile strength and elastic limit which makes it a non-deformable structural panel with high resistance to impact and load flexure.



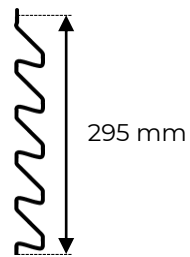
Panel range

The different types of models offer great possibilities for exclusive design concepts.

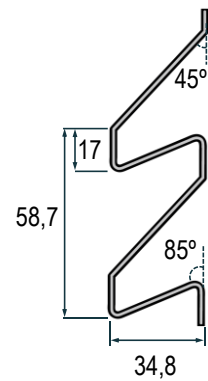
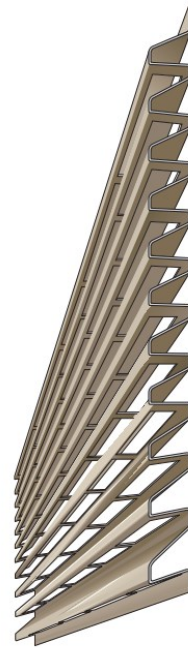
P59x35 Panels



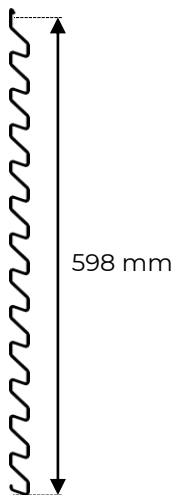
11 slats panel



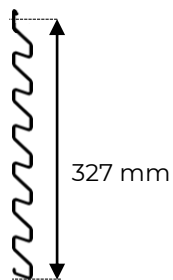
5 slats panel



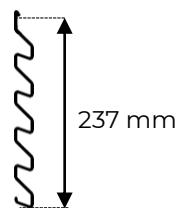
P45x21 Panels



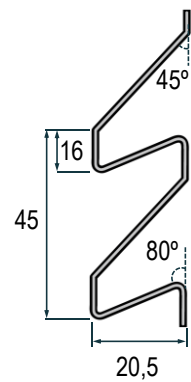
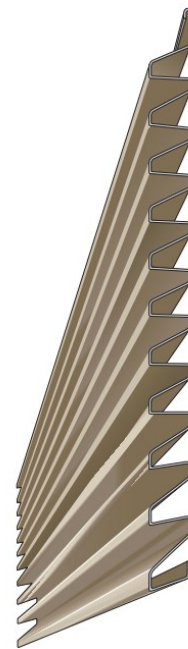
13 slats panel



7 slats panel



5 slats panel



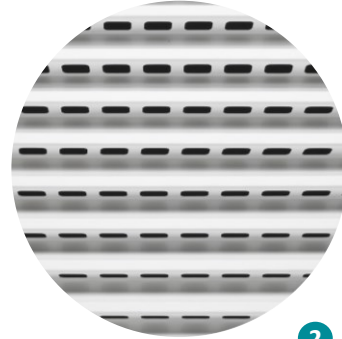
Structural panels that provide ventilation offering true privacy

Aluacero panels are products designed for outdoor installations and as protection against external degradation



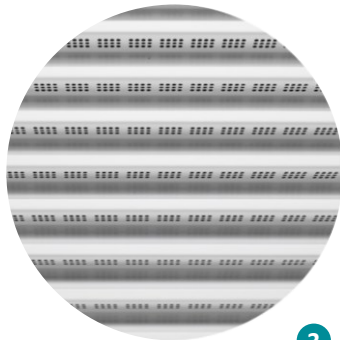
1

1. Blind panel P59x35



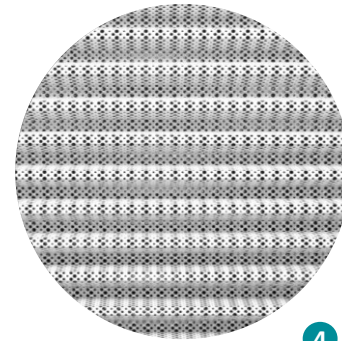
2

2. Windows Panel P59x35



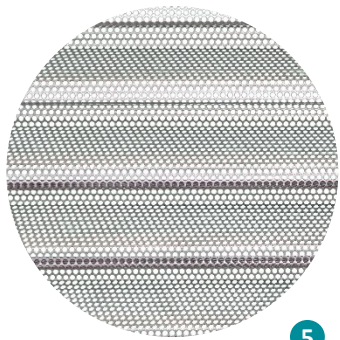
3

3. Microperforated panel P59x35



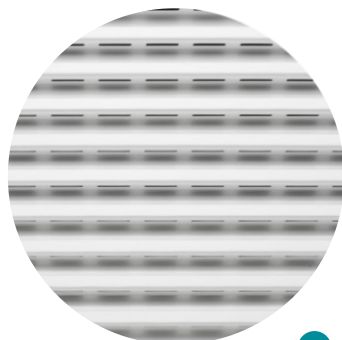
4

4. Multiperforated panel P59x35



5

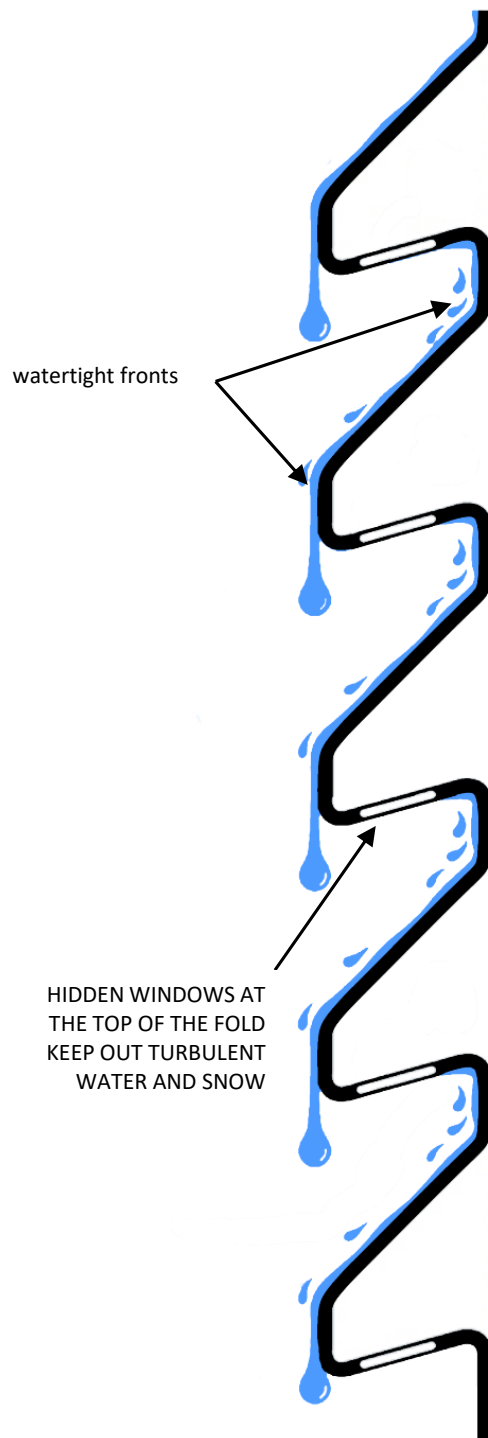
5. Multiperforated Eolo panel P59x35



6

6. Windows panel P45x21

Windows model panel

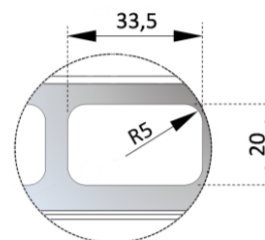


Technical Description

Main factors to take into account

Aluacero acoustic panels are products designed for outdoor installations and to protect from external degradation. They are highly versatile, robust and stable and the characteristics of their structure allow them to absorb a large part of the acoustic noise and prevent the panels themselves from overheating.

Aluacero panels are particularly suitable for the design of large or small infrastructures and withstand loads of over 400 daN/m² without distortion.

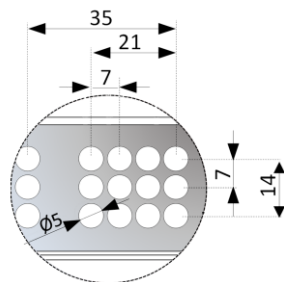


Windows model

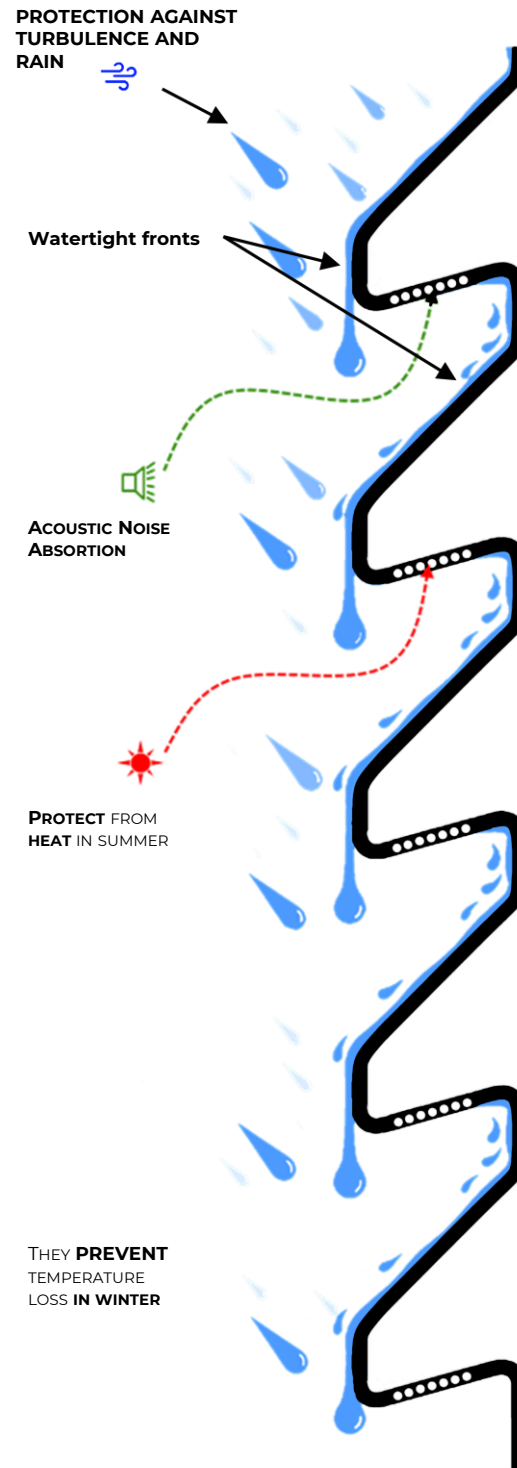
Microperforated model panel

A clear difference with everything that exists on the market

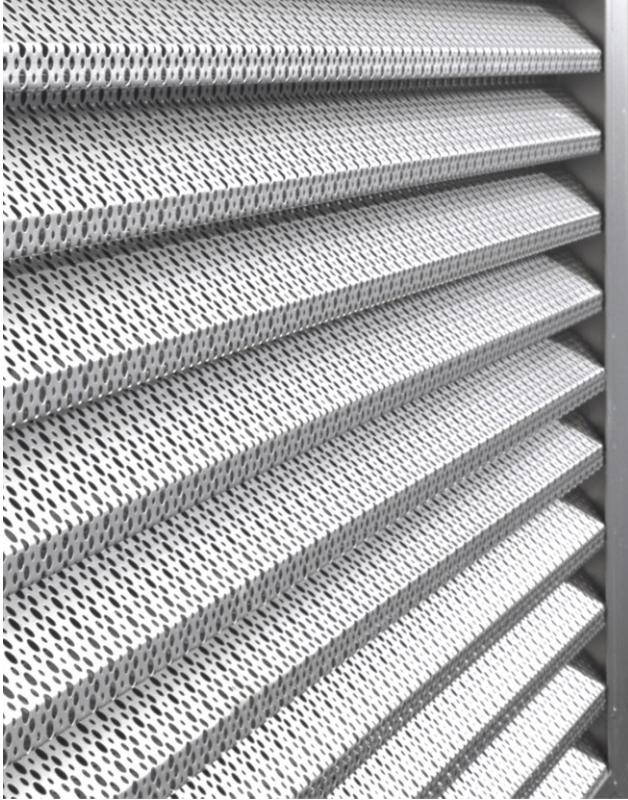
The characteristics offered by Aluacero panels are not comparable with those of any perforated sheet metal model on the market. They are structural panels that, thanks to their high stability, allow the construction of transparent, semi-transparent or totally opaque curved or cylindrical surfaces.



Microperforated model



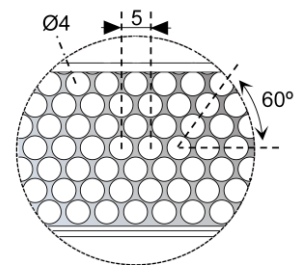
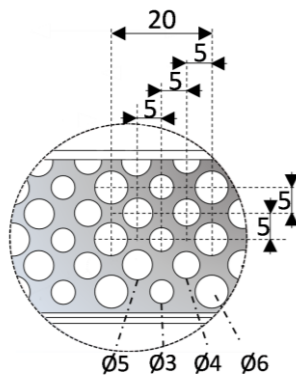
Multiperforated models panels



Multiperforated model



Eolo multiperforated model



Multiperforated models offer maximum transparency and great architectural versatility when designing an envelope.

The geometry of the panel itself presents inclined wings. The perforations help to remove any dirt and the rain takes care of the rest, offering zero maintenance.

Elegant. Effective in all areas.

First and second phase in construction of a research centre in Oliveira de Azemeis, Portugal.



The micro-perforations absorb environmental dirt and neither dust nor rain have a significant effect on them.



Aluacero panels allow façade cladding in both vertical and horizontal positions, with a wide range of models and finishes. It is an industrialized system that is supplied cut to size for each project.

Architecture with P45x21 panels



Given the characteristics of the p45x21 model, it can be framed with all kinds of aluminum, PVC or wood markings.

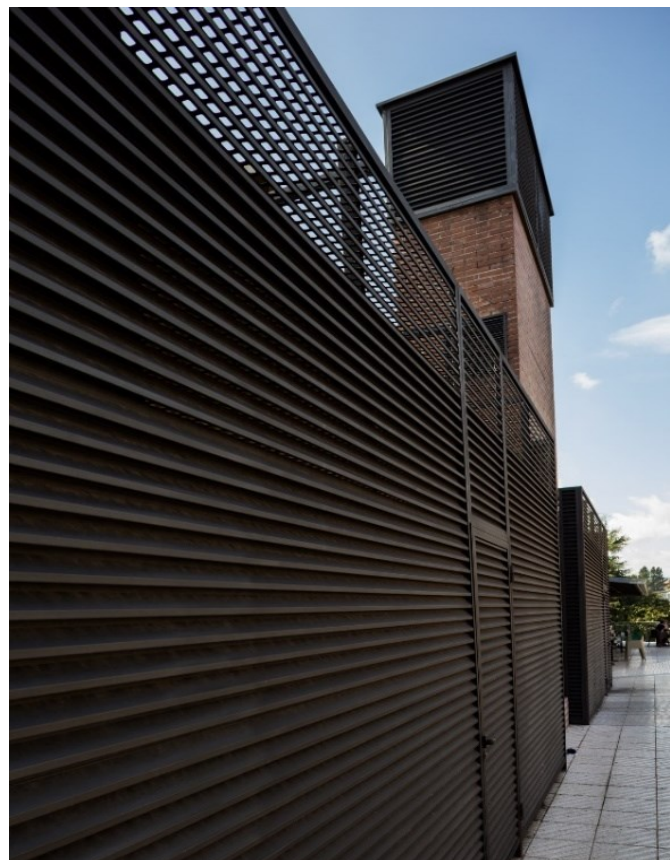


Aluacero miniwave windows model



Aluacero "miniwave" **P45x21** panels are the ideal material for the design of environments with ventilated or totally opaque surfaces, both indoors and outdoors. In facade decoration, they create a great visual effect.

The evolution of ventilated cladding for large infrastructures



They are suitable for all types of projects, from the cladding of a church to a skyscraper or an industrial complex.



Rigidity, high resistance and low weight: those characteristics make the Alucero panels unavoidable for countless applications.



Aluacero panels provide solutions that enhance the design of the facades





For certain applications,
they can also be
installed vertically.



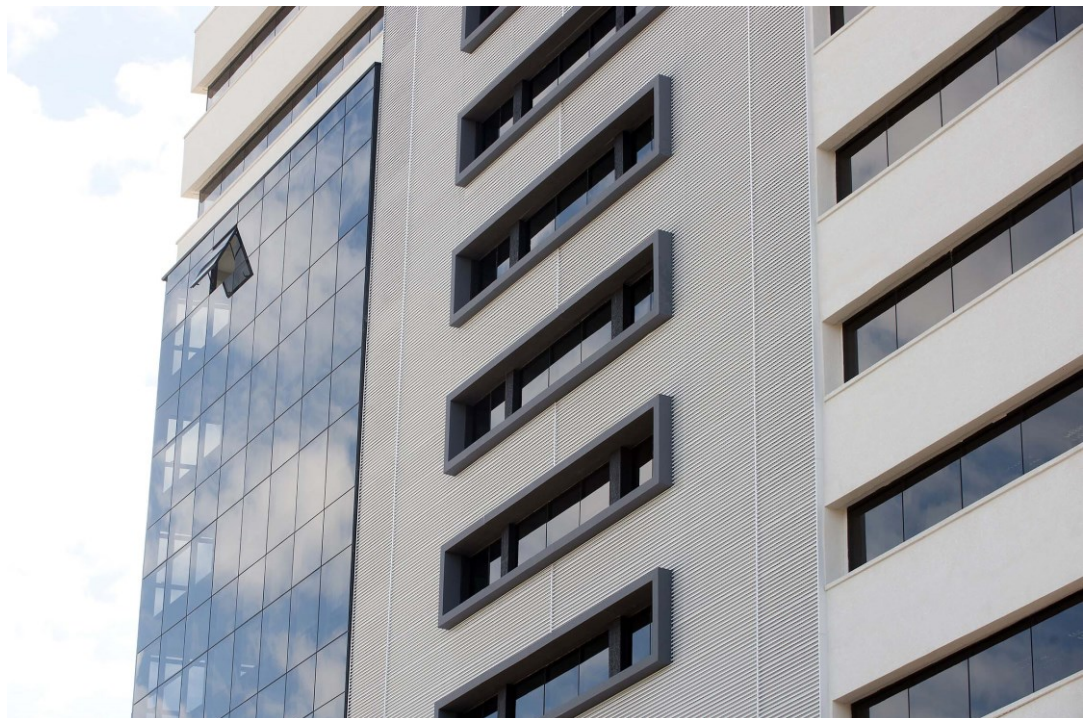
Aluacero panels set no limits to
constructive development. The
surfaces are transformed into eye-
catching communication media for
ornamental motifs and trade
names.

Ventilated facades



Ventilated facades with Aluacero panels offer an excellent aesthetic finish with great technical properties, preventing heat from entering in summer and temperature loss in winter.

P59x35
Panel



Reducing energy costs is also a contribution to the environment

For the last two centuries, architecture has been a laboratory in which attempts have been made to redefine the styles of buildings and facades. However, **in recent years aesthetics have prevailed over quality and utility, and that should not be the case.**

Constructing buildings with materials that help curb climate change is not only possible but necessary, and Aluacero panels provide a very high added value to architecture.

Correct thermal protection can produce energy savings and a CO₂ reduction 60 times higher than the energy cost of the protection itself. This means that the action that contributes most to the sustainability of a building is precisely the correct thermal protection of the building envelope.

Aluacero structural panels take modern facade design to a new dimension



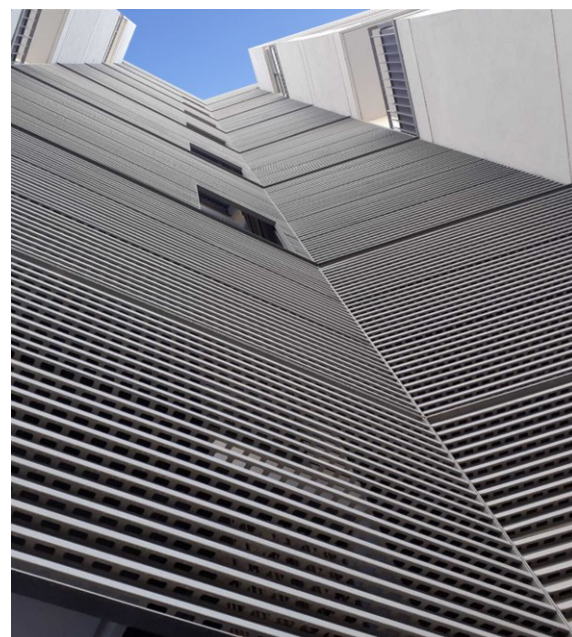
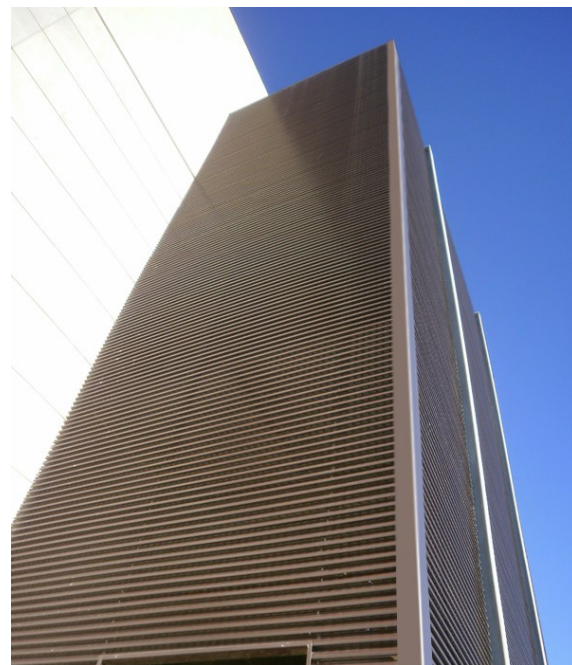
Both the Aluacero P45x21 and P59x35 panels streamline construction and offer high aesthetic appeal, opening up a range of possibilities for new architectural dry cladding systems.

Unique works



Facade detail installed with P45x21 lacquered panels

Internationally, Aluacero panels are present in some recently created architectural works shown in this catalogue.



Light in the Desert

EG Bank's new center of operations in Egypt

To give the banking complex a contemporary air, Aluacero structural panels have been used in the envelope of the exterior plane. With them, a fundamental attraction has been achieved, which is the transparency and openness of its construction, avoiding solar radiation and obtaining natural ventilation.



Aluacero panels guarantee true safety in extremely high buildings with strong wind loads

Another perspective of the brand new bank building

La doble piel actúa como seguridad del propio edificio. La luz natural y la ventilación fluyen libremente hacia el interior y es un gran protector contra los rayos solares, los insectos y el aislamiento acústico.



Anticipating the new standards of architecture, we present some important examples with large buildings, being a benchmark in terms of aesthetics, resistance and safety.

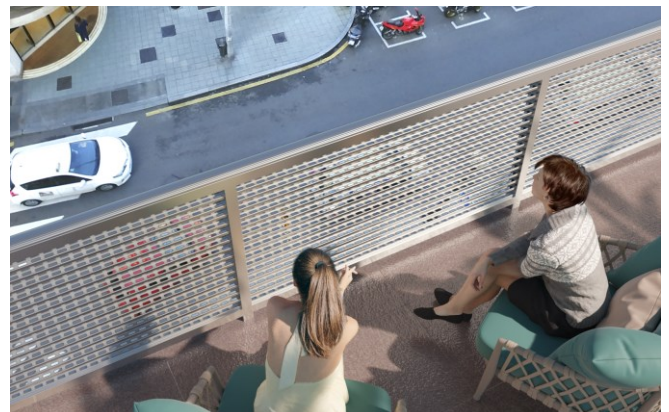
Privacy and security is having quality of life

Railings with view of the outside



Project under construction of a residential building, Copiapó, Chile.

The exclusivity of seeing without being seen, something unthinkable 20 years ago



New generation of facades with ventilated terraces that stand out for their excellent technical qualities, lightness, reliability and easy installation. It can be installed vertically or horizontally.

Exuberance of futuristic colors

Color is the language of the subconscious



Residential building in Copiapó, Chile.

Large transparent infrastructures with double security layer



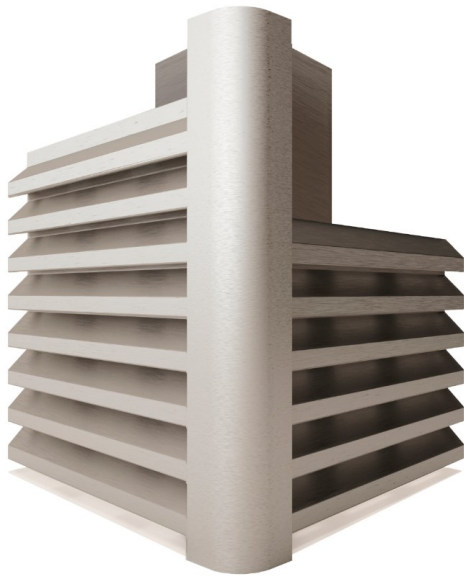
Project under construction of the courthouse, Salvador de Bahia (Brazil).



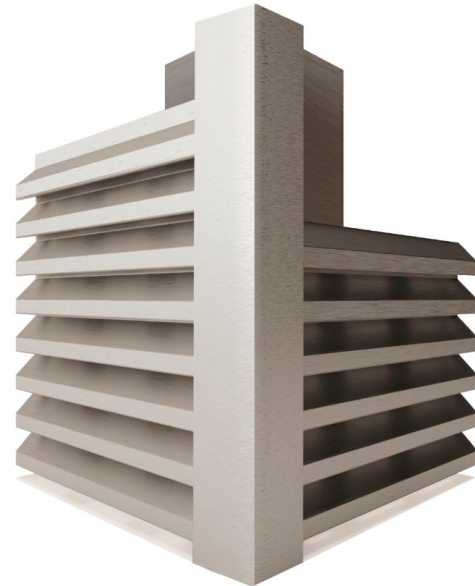
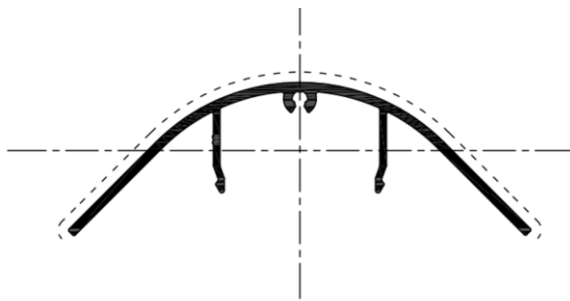
Courthouse built with Aluacero cladding



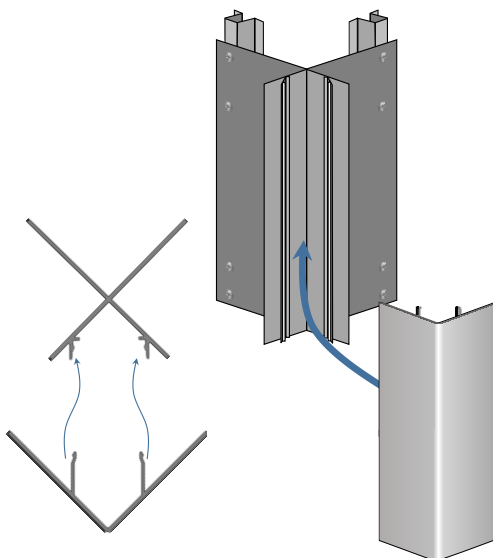
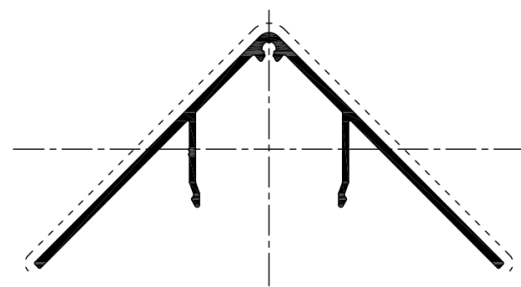
End joints of facades in extruded aluminium



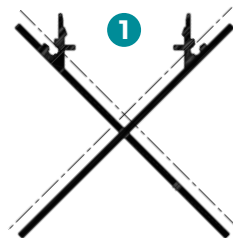
Curved model



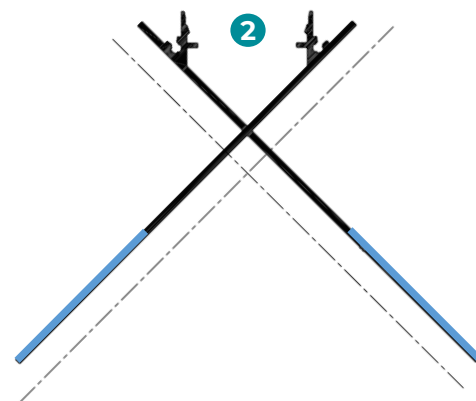
Angle model



Panel support for small applications



Panel support for all types of infrastructure

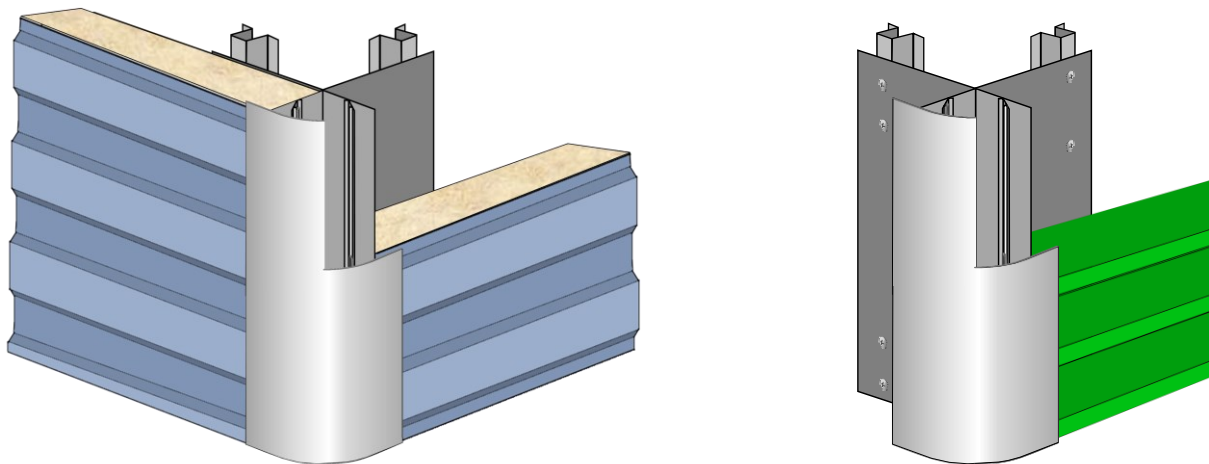


To facilitate the assembly of the corner finishings, there are two systems by means of clipping: a simple one, **1**, which lightens the weight of the assembly, and another one, **2**, with larger wings which facilitates the assembly and gives more consistency to the structure itself.

Coatings with innovative finishes



This new **patented** system makes it possible to finish off the corners of facades and any type of construction easily and with an impeccable finish, both in curved and angled formats.



Aluacero Panels harmonize perfectly with all the materials used in construction such as stone, wood, brick, marble, and all the variety of quality cladding, contributing to create an atmosphere of comfort, elegance, and excellent aesthetic finish.

Facade cladding

The Aluacero panels, in a simple and quick way, allow the cladding of facades in poor condition or just to improve their appearance. They can be installed simply with battens on the existing wall, without structural reinforcement of any kind, or with rock wool thermal insulation between the wall and the cladding panel.



Aluacero panels are designed for outdoor installations and as protection against external degradation



**Ventilated cladding
to improve the
appearance of
facades**



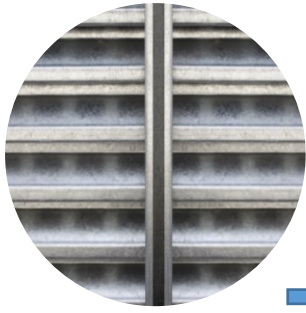
Security closures for large infrastructures

Large electrical companies such as Iberdrola and EDP have chosen Aluacero structural panels to provide their transformation centers with total security with an exterior view.

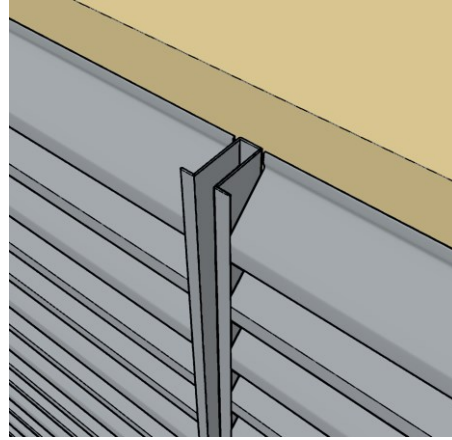


Aluacero panels against street attacks and vandalism

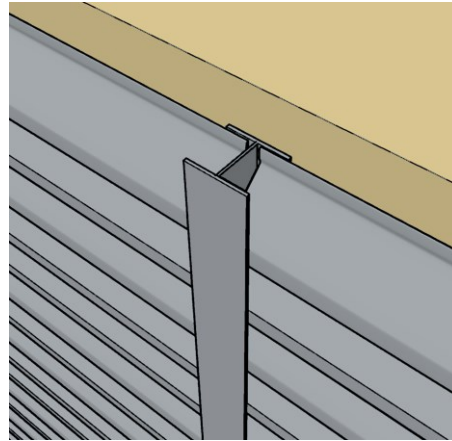
Joint couplings



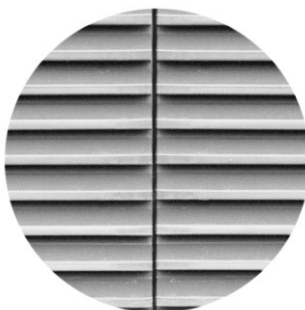
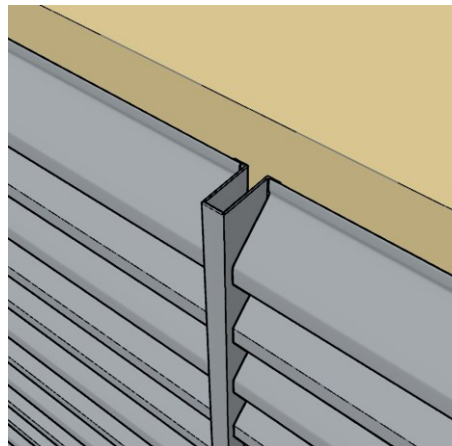
**Inverted omega
profile joint**



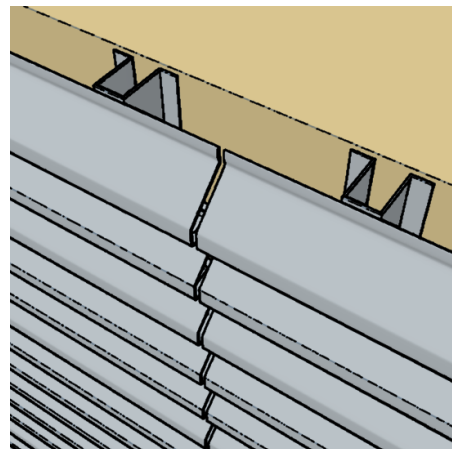
H profile joint



**Coupling with visible
face omega profile**



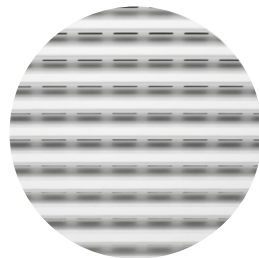
**Coupling with visible
joint**



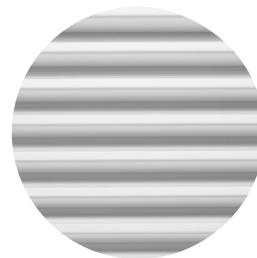
Weight tables

Aluacero Panels **P45x21**

	Model	Material	Thickness (mm)	Weight (Kg/m)	Weight (Kg/m ²)	Perforated surface	Standard finishings
13 SLATS	Windows	Steel	0,6	4,59	7,68	8%	Galvanized Cold rolled
		Aluminium	0,8	2,08	3,48	8%	Raw
	Blind	Steel	0,6	4,82	8,06	NO	Galvanized Cold rolled
		Aluminium	0,8	2,22	3,71	NO	Raw
7 SLATS	Windows	Steel	0,6	2,53	7,74	8%	Galvanized Cold rolled
		Aluminium	0,8	1,13	3,46	8%	Raw
	Blind	Steel	0,6	2,66	8,13	NO	Galvanized Cold rolled
		Aluminium	0,8	1,21	3,70	NO	Raw
5 SLATS	Windows	Steel	0,6	1,83	7,72	8%	Galvanized Cold rolled
		Aluminium	0,8	0,81	3,42	8%	Raw
	Blind	Steel	0,6	1,92	8,10	NO	Galvanized Cold rolled
		Aluminium	0,8	0,88	3,71	NO	Raw



Windows



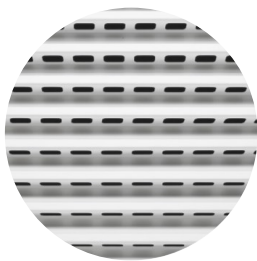
Blind

In order to be integrated harmoniously into any environment, Aluacero panels not only offer the possibility of lacquering in any color, but also offer special variants of PVC coverings, in different varieties of wood color or in other finishes that you request.

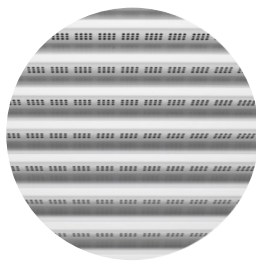
Weight tables

Aluacero Panels **P59x35**

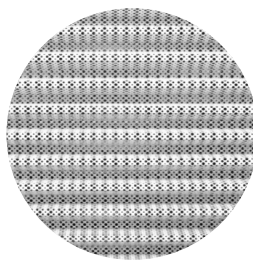
	Model	Material	Thickness (mm)	Weight (Kg/m)	Weight (Kg/m²)	Perforated surface	Standard finishings
11 SLATS	Windows	Steel	0,6	4,85	7,46	22%	Galvanized Cold rolled
		Aluminum	0,8	2,42	3,72	22%	Raw
	Microperf.	Steel	0,6	5,42	8,34	11%	Galvanized Cold rolled
		Aluminum	0,8	2,55	3,92	11%	Raw
	Multiperf.	Steel	0,6	4,00	6,15	32%	Galvanized
		Aluminum	0,8	1,85	2,85	32%	Raw
	Multip. Eolo	Steel	0,6	2,50	3,85	58%	Galvanized
	Blind	Steel	0,6	5,89	9,06	NO	Galvanized Cold rolled
		Aluminum	0,8	2,73	4,20	NO	Raw
5 SLATS	Windows	Steel	0,6	2,24	7,54	22%	Galvanized Cold rolled
		Aluminum	0,8	1,11	3,74	22%	Raw
	Microperf.	Steel	0,6	2,51	8,45	11%	Galvanized Cold rolled
		Aluminum	0,8	1,17	3,94	11%	Raw
	Multiperf.	Steel	0,6	1,86	6,26	32%	Galvanized
		Aluminum	0,8	0,84	2,83	32%	Raw
	Blind	Steel	0,6	2,73	9,19	NO	Galvanized Cold rolled
		Aluminum	0,8	1,26	4,24	NO	Raw



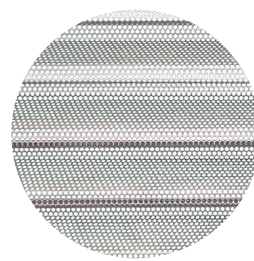
Windows



Microperforated



Multiperforated



Multip. Eolo



Blind

Certificates and quality seals

TECHNICAL SPECIFICATIONS AND QUALITY CERTIFICATES AND LABORATORY TESTS



WATER TIGHTNESS TEST TO EN 13030:2002

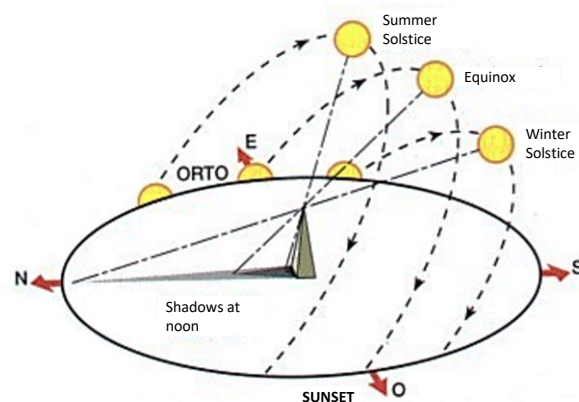
A storm is simulated on the Blockatech panel by projecting 75l/h of rain with a wind speed of 46.8 km/h onto the panel. Depending on the amount of water passing through the panel, the efficiency of the panel acting as a natural ventilation system is determined ($V_{front}=0.0m/s$).

The certifications and water tests are endorsed by the prestigious **BSRIA**, the Building Service Research and information Association (UK).

STANDAR	MODEL	INSULATION
EN 13030:2002	Aluacero Microperforated	99,4 %
EN 13030:2002	Alucero with windows	98,4 %

LIGHTING COMFORT

More than 80% blocking of sunlight on multi-perforated panels.



Both the efficacy and safety offered by Aluacero panels are endorsed by national and international safety and environmental certifications.



MECHANICAL RESISTANCE

Aluacero cladding panels allow spans of up to 3m both vertically and horizontally, capable of withstanding wind loads of 126km/h and up to 400daN/m² of mechanical resistance.



ACÚSTICA

The degree of perforation of Aluacero panels helps to absorb airborne and façade noise.

On-site testing of Aluacero panels as acoustic barriers



RESISTENCIA A IMPACTOS

Se realiza el ensayo de resistencia a impactos para el Panel Aluacero.

Resistencia a impactos en acero y aluminio	
Producto	Resistencia
Paneles Aluacero	Categoría 1. (impactos de 3, 10 60 y 400 Julios)

In situ measurement of air sound insulation of facades and facade elements	UNE EN ISO 140-5	Aluacero panel Microperforated	R(A) = 14,8 dB(A)
In situ measurement of air sound insulation of facades and facade elements	UNE EN ISO 140-5	Aluacero panel with windows	R(A) = 14,8 dB(A)

Technical characteristics

Aluacero panels are manufactured according to the ISO 9001 quality certification system. They are certified by independent national and international laboratories, such as the prestigious The Building Service Research and information Association (BSRIA) of the United Kingdom.



Aluacero Panels comply with the essential requirements set out in Annex I of the Construction Products Regulation 305/2011 of the European Parliament and of the Council laying down harmonised conditions for the marketing of construction products, and with those set out in Annex ZQ of the standard UNE-EN 14782:2006 Self-supporting Metal Sheets for roof and cladding of coverings and facades.

With the background of its history, in Cierres del Hogar we express in a special way the quality and way of working of our company with designs, patents and utility models of our property.

The reports and contents in this brochure only reflect approximate technical data that may vary according to the circumstances of the type of construction work, in no case shall Cierres del Hogar be responsible for the results of the actions that may be carried out based on this information and cannot give rise to any claim for compensation.

We reserve the right to make any changes in production or product range which appear technically reasonable in view of our quality requirements.

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All audiovisual and technical information is clearly presented on our website: www.cierreshogar.com.

A service tailored to our customers

Cierres del Hogar offers collaborations to professionals with an excellent service and permanent support in their cladding projects, supplying Aluacero Panels in the colour requested for each project.

Depósito legal:



ALUACERO[®]

P A N E L S

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