



CLIMA

THE MOST EFFICIENT
WINDOW

Energy-efficient casement window system



If I knew the world was ending tomorrow,
I would still plant a tree today.

Martin Luther King



**Design
Comfort
Silence**

Without nature we would have no trees to experience, no fresh air to breathe, or any birds to watch. Without nature, the light would be completely blinding and the heat would be unbearable. It would be completely impossible to feel the cool forest or listen to buzzing bees if they were gone. And it would be heart-wrenching to answer our children when they asked us about the animals. "They're gone" we would mutter.

Life without the color green is no life. Remembering this is a necessary and powerful experience.

As human beings we need to connect, touch, walk into, immerse ourselves and bathe in nature, not on a whim but out of pure biological necessity. We have been living in nature for longer than we have outside of it, and our bodies are still more adapted to the natural environment than to the urban environment. That's why they still need all the benefits that come along with nature.

Connecting with nature is a must for
anyone who wants to feel good
physically and emotionally.

Windows for a better world



Talking about climate change is now required. We cannot ignore the fact that as a society we have directly and indirectly played a part in harming our only environment.

Unchecked greenhouse gas emissions, unrestrained deforestation, air and water pollution, overfishing and the excessive use of plastic have led to a truly alarming situation.

But there is still time to reverse this process with acts big and small. Millions of people doing their part daily as individuals can become the strongest effort ever seen.

**Design
Comfort
Silence**

This work directly impacts the level of insulation and, in turn, results in lower energy costs for homes and buildings.



Our contribution to a better world **does not come from a single window or a single model**; it is the sum of each and every one of them, working together to provide insulation and comfort for people while remaining environmentally sustainable.



Unlike other windows, Thermia windows are made of aluminum, which can be recycled an infinite number of times without losing any of its toughness or strength.

Thermia Barcelona designs windows for the benefit of people and their environment. We strive every day to perfect our products to make them part of more sustainable buildings.

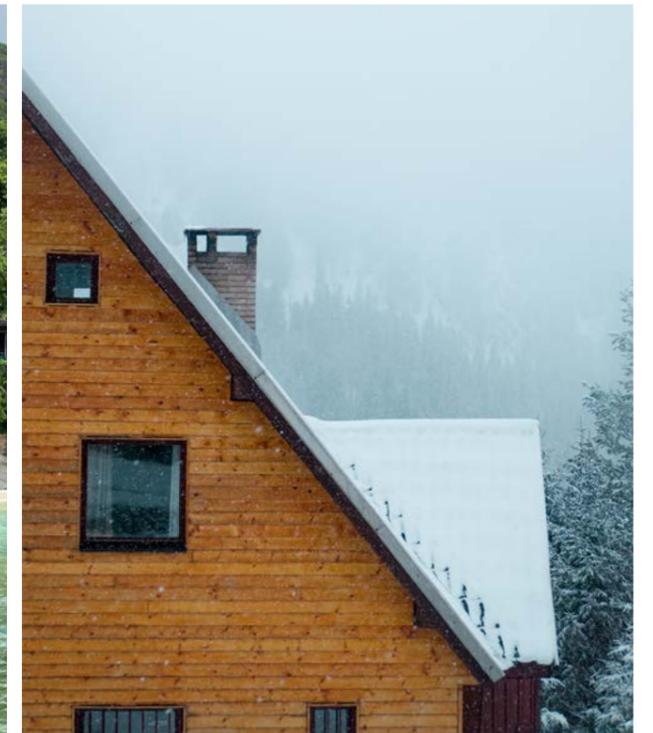


Thermia CLIMA

Thermia Barcelona's most ambitious contribution to the environment



On this occasion we are proud to present the most equipped insulation system, which is **perfect for extreme climates**. Together with the other features of a building's envelope, it will help to drastically reduce heat and cold loss.



"Our goal is to have the lowest impact possible on a world that is all about highs."



Uw this value tells us how much insulation a window has. But **how do we calculate it?**

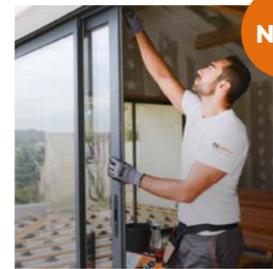
Uw is a value used in the construction industry to measure the thermal transmittance of windows. **It refers to the amount of heat passing through a window per unit of time and per square meter of surface area.** Uw values are calculated using the UNE EN 10077-2:2008 standard, which applies to 3 factors: profile conductivity, glass composition and technology, and the sealing materials for on-site installation.



Low conductive profiles



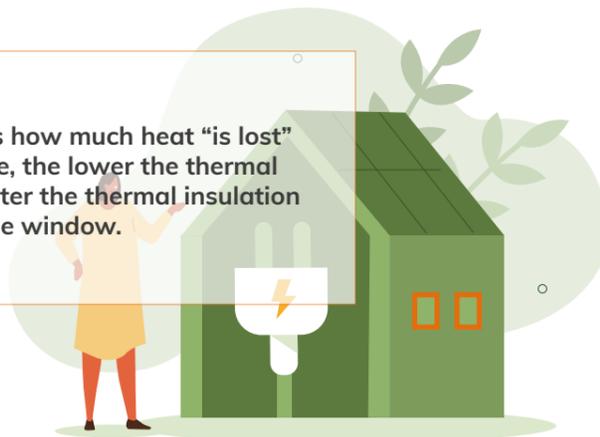
Low coefficient glass (double or triple glazing with smart glass)



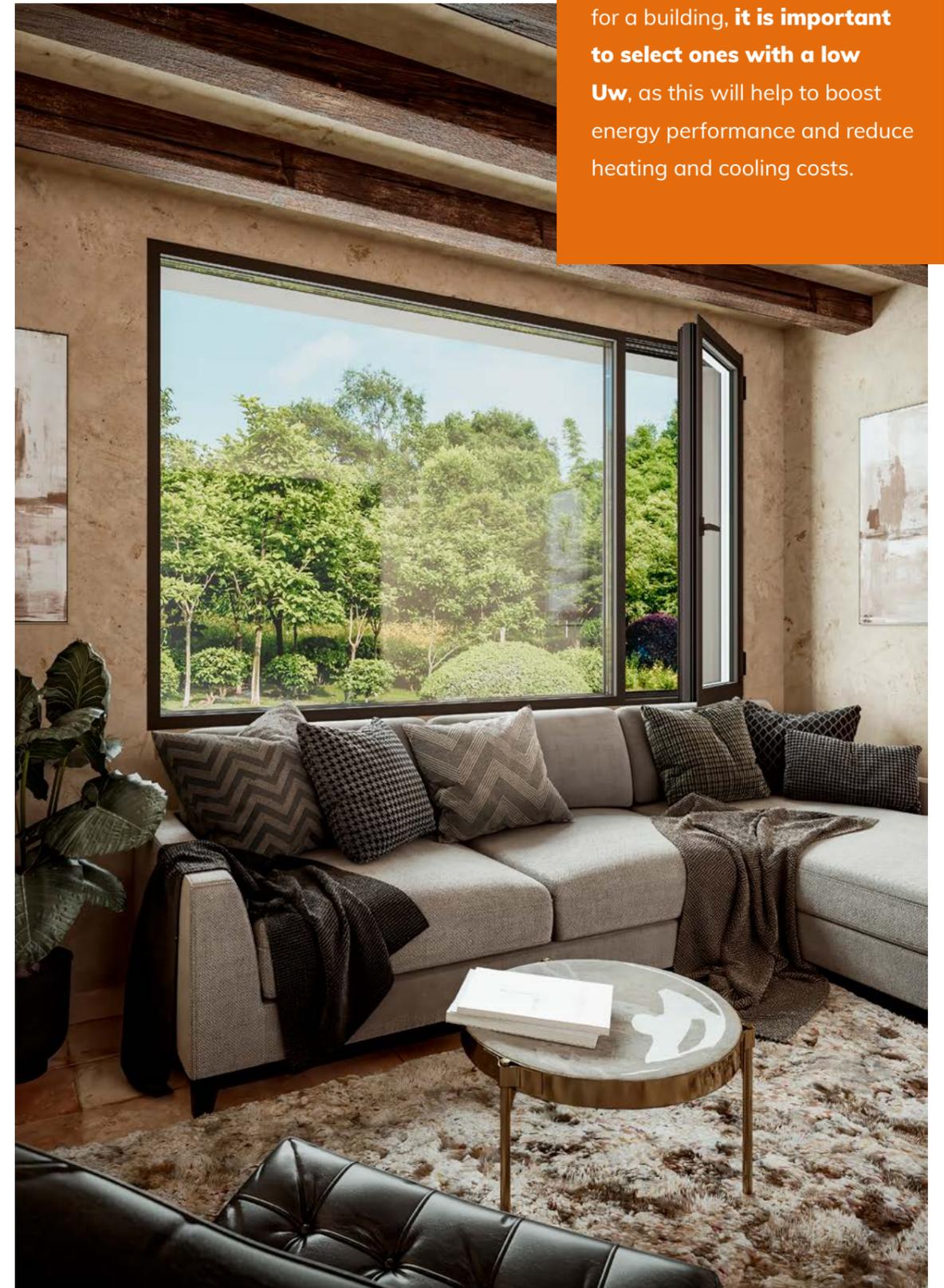
Installation (sealing) based on window manufacturer

Uw

The Uw coefficient expresses how much heat “is lost” through windows. Therefore, the lower the thermal transmittance value, the greater the thermal insulation provided by the window.



So, when choosing windows for a building, **it is important to select ones with a low Uw**, as this will help to boost energy performance and reduce heating and cooling costs.



If you are looking for **energy performance**, Thermia CLIMA is your window



Thermia CLIMA is available in two models based on the thermal needs of your project.



COMPLETE CLIMA

Featuring 42 mm low conductive polyamides with liquid polyurethane injected in a hollow profile.

Uw up to 0,84 W/m2k*

*Based on a 1500 x 1500 window
Glass Ug= 0.50 W/m2K and Ψg= 0.049 W/mK



Uw: 0,84 W/m2K*

OPTIMUM CLIMA

Featuring 42 mm low conductive polyamides.

Uw up to 1,05 W/m2K*

*Based on a 1500 x 1500 window
Glass Ug= 0.50 W/m2K and Ψg= 0.049 W/mK



Uw: 1,05 W/m2K*



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Thermia CLIMA

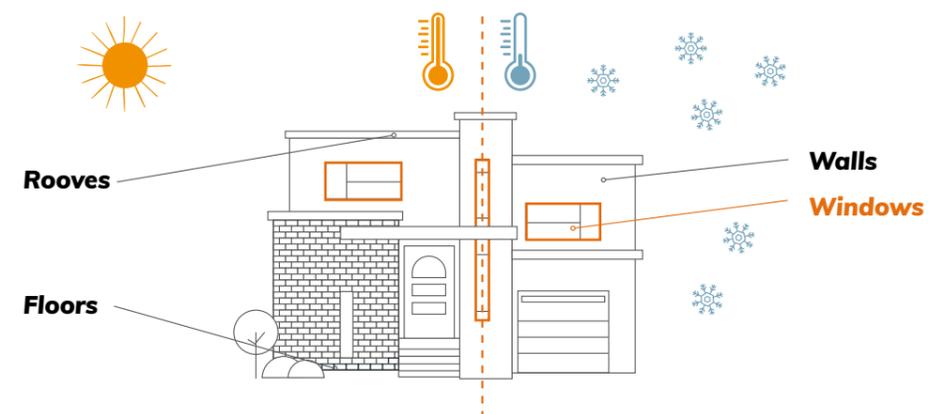


The **perfect** window for **extreme climates.**

The envelope is the main concern of any architectural project looking for maximum energy performance. Choosing the best materials and the latest insulation technologies will ensure the entire project stays efficient.

Walls, floors, rooves and **especially windows** are the main components that architects need to focus on.

Wall openings (windows) are a major source of energy loss. This is why it is so important to choose a form of carpentry that will ensure perfect insulation.



Thermia CLIMA

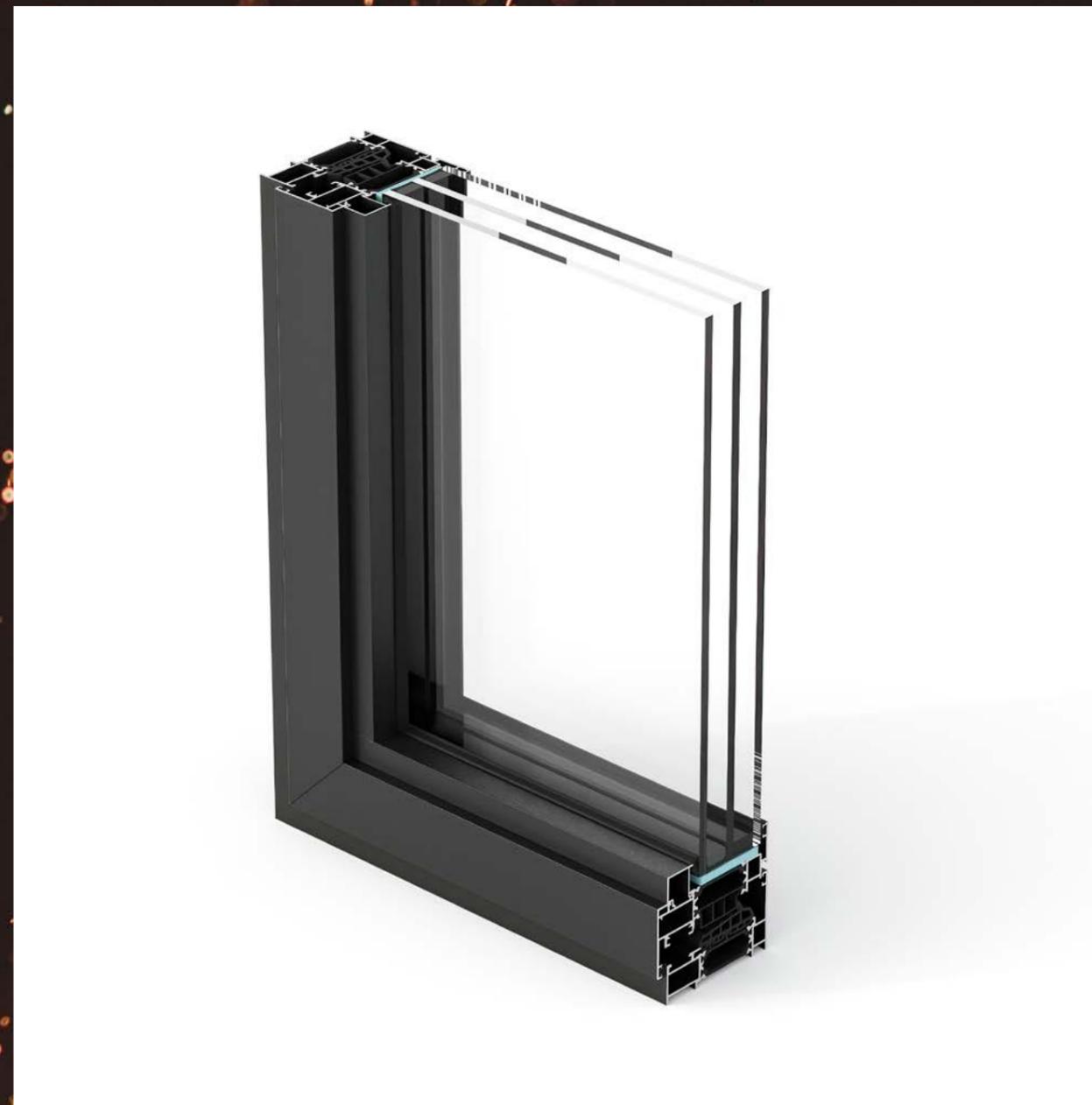
Design
Comfort
Silence



Design
Comfort
Silence



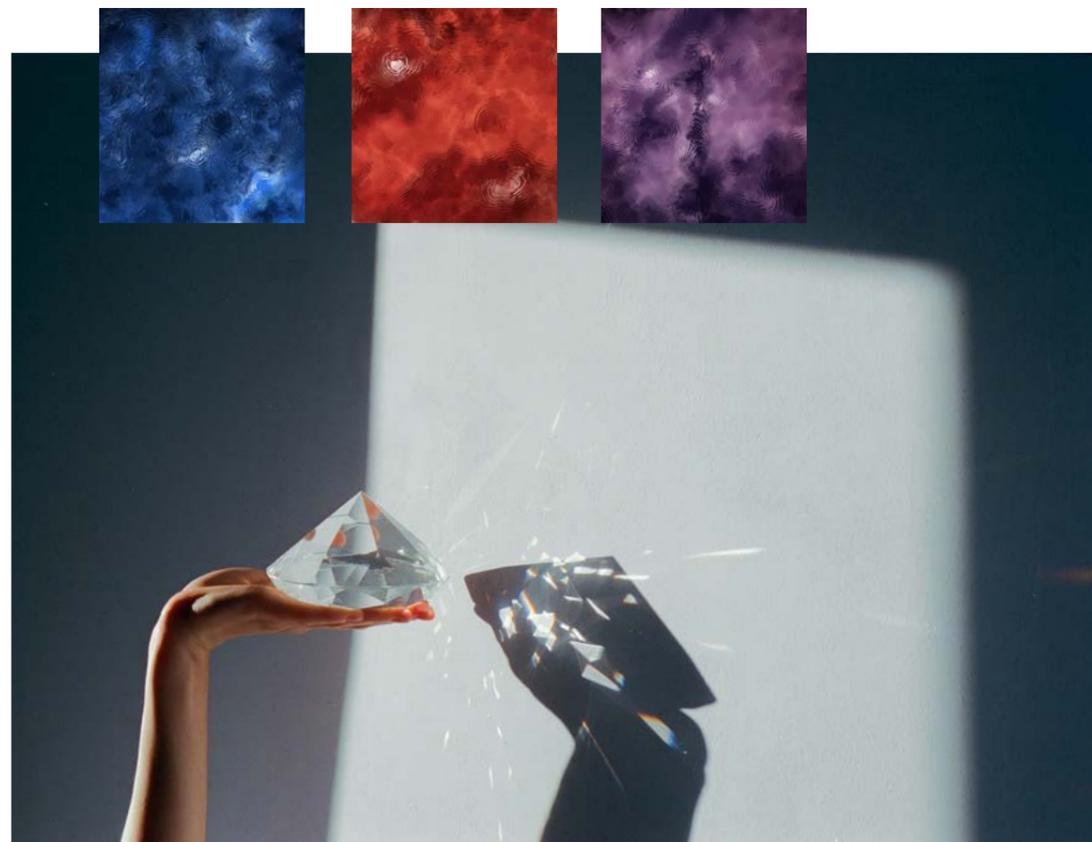
Thermia CLIMA



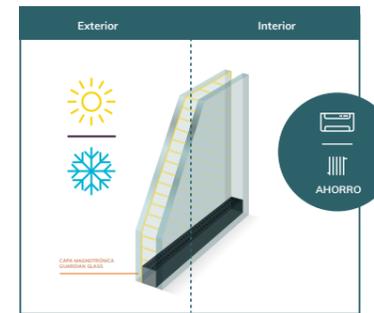
Glass does matter. Glass technology.

Smart glass

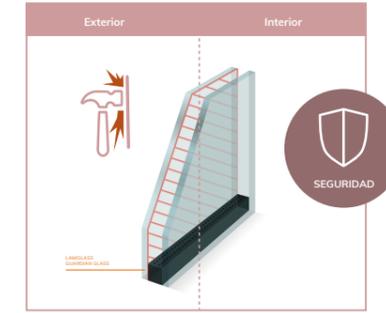
Technical or smart glass is a type of glass that uses advanced technology to modify its optical and thermal properties in response to environmental conditions to improve energy performance, privacy, safety, and user comfort



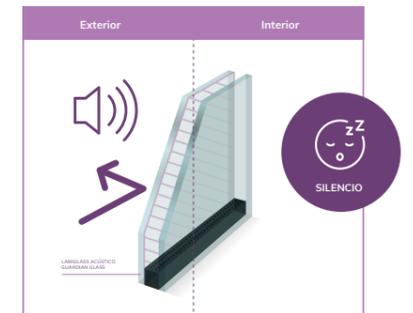
Double or triple glazing are able to use sheets with characteristics and technology suitable for different types of comfort:



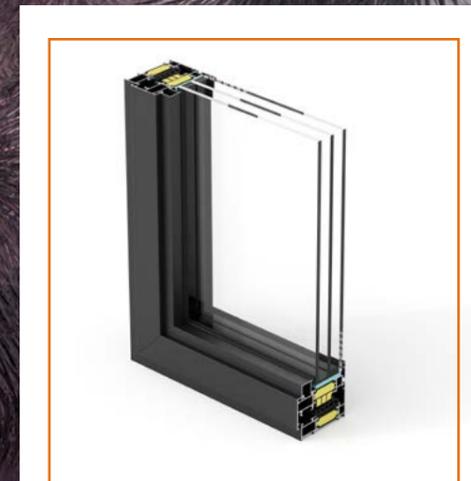
Solar control sheet: coating applied to the glass to reduce extreme outdoor temperatures.



Safety sheet: polyvinyl butyral sheet between two panes of glass to prevent damage during breakage.



Acoustic sheet: butyral sheet between two panes of glass applied to the glass to reduce outside noise.



Maximum glazing width:

52 mm

THERMIA CLIMA. Able to be **triple glazed.**

Thermia CLIMA's sash design provides a space wide enough to house triple glazing.

This means **triple smart glass** can be used in combination with multiple sheets to **increase insulation** inside homes.



Look and asymmetry

Thermia AR90 **CLIMA** is a casement window with asymmetry in its central profile for projects looking to stand out with a subtle feature that sets it apart as a whole.

This series also features a **a second recessed glazing bead in the form of a visual step**, creating an overall slenderer leaf.

The recessed glazing bead is 16 mm, unlike others which are 22 mm

Design
Comfort
Silence



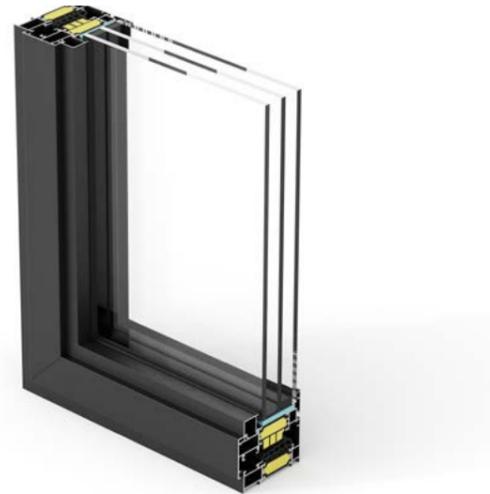
Thermia AR90 Complete CLIMA

COMPLETE CLIMA

★★★★★
Uw
0.84 W/m2K*

Energy-efficient casement SERIES

Technical features Thermia® CLIMA	
Thermal break	42 mm F and 42 mm L with injected foam
Main frame	82 mm
Main leaf	90 mm
Maximum glazing width	52 mm
General thickness of the profiles	1.5 mm
Tilt and turn leaf maximum weight	Up to 160 kg/leaf
Fittings	Tilt and Turn/Casement/Tilt Opening
Available profiles	Window / Balcony Door



Window Uw = **0,84 W/mK²*** Uf profile = **1,10 W/mK²**



Acoustic attenuation up to 41 dB with acoustic laminated glass of 44.1/Cam/44.1 composition (window measuring 1230 x 1450)

*Based on a 1500 x 1500 window
Glass Ug= 0.50 W/m2K and Ψg= 0.049 W/mK

Test results Thermia® AR90 COMPLETE CLIMA

	Air permeability	4
	Watertightness	E2100
	Window wind resistance	C5

Results of test reports at ENSATEC lab, document no. 258.040, and based on Annex of standard EN 14351-1:2006+A2:2016.



All components of the Thermia CLIMA system originate from the European Community.

Quality seals



Qualanod seal for anodization
License number: 1014



Qualicoat seal for lacquer
License number: 405



Qualideco seal for imitation wood
License number: ES-0009F

Certification



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EN14351-1:2006+A2:2016

Thermia AR90 Optimum CLIMA

OPTIMUM CLIMA

★★★★★
Uw
1.05 W/m2K*

Energy-efficient casement SERIES

Technical features Thermia® CLIMA	
Thermal break	42 mm M and 42 mm H
Main frame	82 mm
Main leaf	90 mm
Maximum glazing width	52 mm
General thickness of the profiles	1.5 mm
Tilt and turn leaf maximum weight	Up to 160 kg/leaf
Fittings	Tilt and Turn/Casement/Tilt Opening
Available profiles	Window/Balcony Door/Tilt and Turn



Window Uw = **1,05 W/mK²*** Profile Uf = **1,90 W/mK²**



Acoustic attenuation up to 41 dB with acoustic laminated glass of 44.1/Cam/44.1 composition (window measuring 1230 x 1450)

*Based on a 1500 x 1500 window
Glass Ug= 0.50 W/m2K and Ψg= 0.049 W/mK

Test results Thermia® AR90 OPTIMUM CLIMA

	Air permeability	4
	Watertightness	E750
	Window wind resistance	C5

Results of test reports at ENSATEC lab, document no. 258.040, and based on Annex of standard EN 14351-1:2006+A2:2016.



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Certification



THERMIA BARCELONA
EN14351-1:2006+A2:2016

Detail



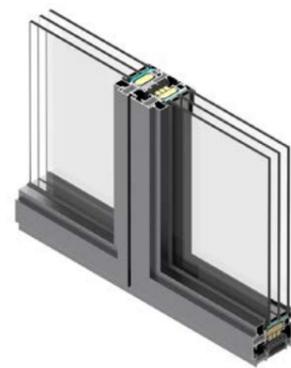
Detalle



Structural solutions



3D lateral cross-section Thermia **COMPLETE CLIMA**



3D central cross-section Thermia **COMPLETE CLIMA**



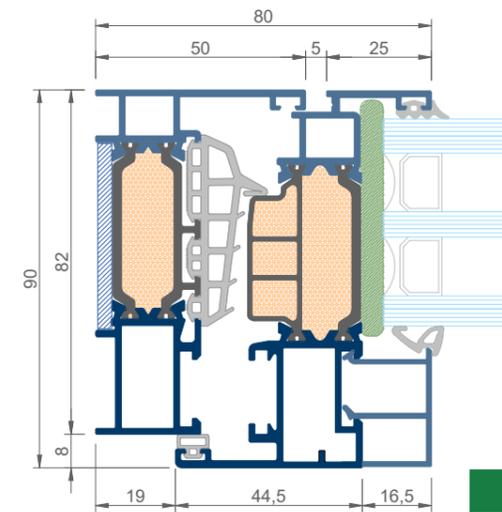
3D lateral cross-section Thermia **OPTIMUM CLIMA**



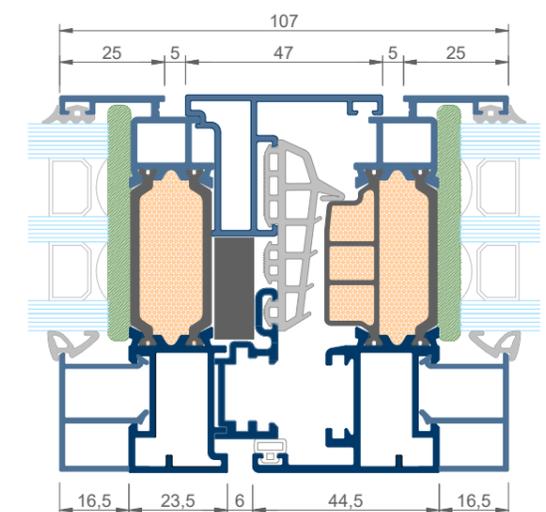
3D central cross-section Thermia **OPTIMUM CLIMA**

Cross-sections

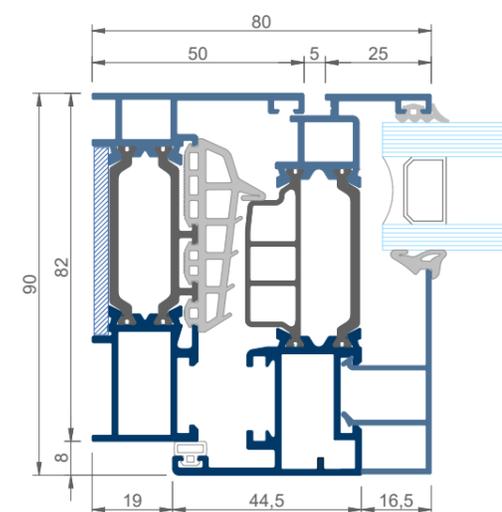
Minimum leaf width: 400 mm
Maximum leaf weight: 160 kg



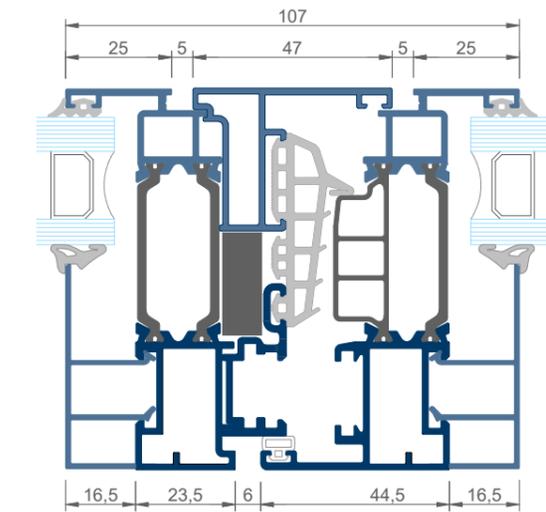
LATERAL CROSS-SECTION THERMIA **COMPLETE CLIMA**



CENTRAL CROSS-SECTION THERMIA **COMPLETE CLIMA**



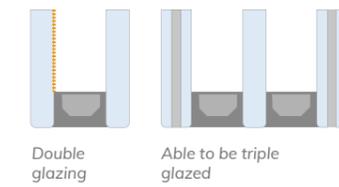
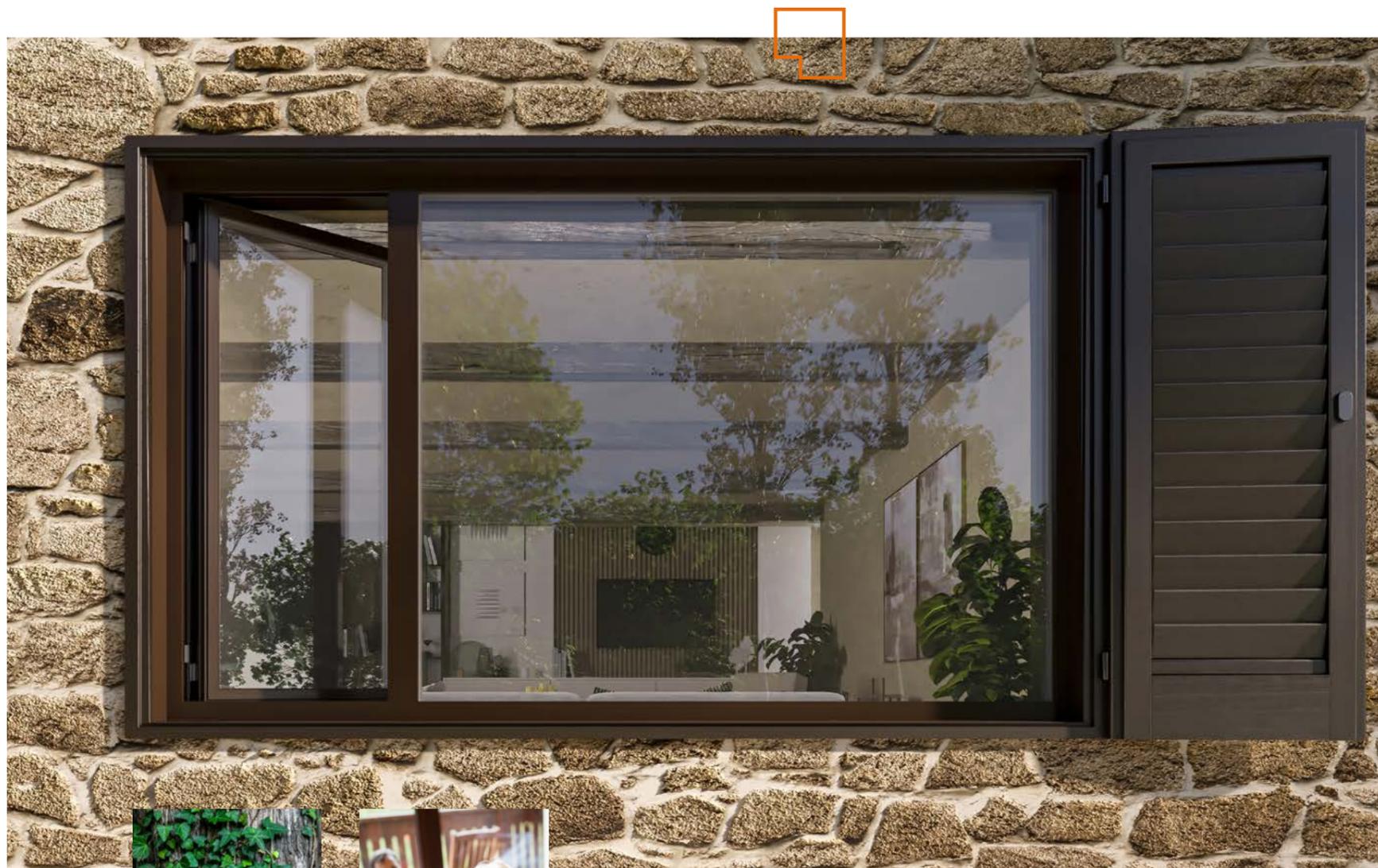
LATERAL CROSS-SECTION THERMIA **OPTIMUM CLIMA**



CENTRAL CROSS-SECTION THERMIA **OPTIMUM CLIMA**

The Thermia AR90 **CLIMA** series is specially designed for projects looking for a minimal environmental footprint, while providing maximum home comfort.

Insulating technology



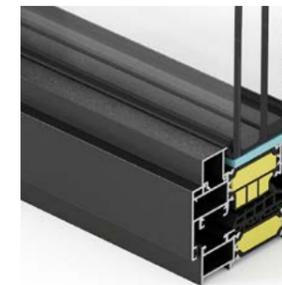
Double glazing

Able to be triple glazed

GLAZING

Designed to house high-insulating glass compositions.

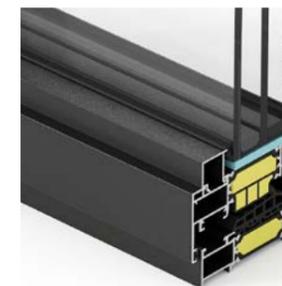
52 mm
Maximum glazing capacity



THERMAL BREAK (TB)

42 mm low conductive polyamides with the option of liquid polyurethane injected in hollow profiles.

42 mm frame / 42 mm leaf
TB capacity



EPDM CENTRAL GASKET

Foamed EPDM with a conductivity of less than 0.05 W/mK, which means that in addition to providing water/wind tightness, it also provides optimum thermal insulation.

POLYAMIDE

The default series has a 90 mm frame and leaf cross-section, with 42 mm low emissivity polyamides. (Low Lambda)

Beauty in the details



Modern maneuverable fittings
to accessorize a **great window**



Choose from
a variety of looks,
colors and finishes

- White
- Black
- Silver
- Color Std



Everything begins with light,
and our windows
are the vehicle for you
to enjoy it anytime.

Windows for a better life



THERMIA®

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