



Windows for a better life



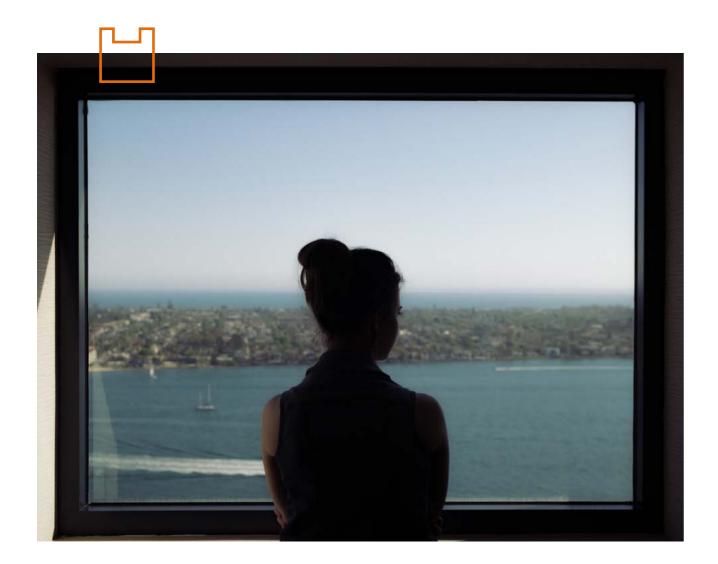
THERMIA BARCELONA PHILOSOPHY WHO WE ARE AND WHO WE WILL B

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At Thermia Barcelona[®] we believe that windows should be a perfect blend of emerging-generation materials and cutting-edge technology, with the ability to offer construction solutions to build new spaces where none had been before.

As the link to the outside world, they should enable natural light to radiate throughout the space, providing comfort and isolation while maximizing energy savings, which is necessary now more than ever. A window should help to create functional, comfortable, and beautiful homes and be in harmony with the people living there. This is why we strive to go the extra mile every day.

"For us, a window is more than just a structure embedded to a wall, for us a window is nothing less than an opportunity to live a better life".



"Looking from outside into an open window you never see as much as when you look through a closed window. There is nothing more profound, more mysterious, more pregnant, more insidious, more dazzling than a window lighted by a single candle. What you can see out in the sunlight is always less interesting than what goes on behind a window pane. In that black or luminous square life lives, life dreams, life suffers."

Charles Baudelaire

Design Comfort Silence

Cover: Distributor: ALUTERMICS / Building company: INTERDICO HOME BUILDER / © photo: Sergio López @sergio.lopez.photo

Thermia Barcelona

Approach and philosophy Quality beyond the produc Facilities Thermia[®] showrooms arou

Completed works

Clients who have put their

Thermia® windows

Types of windows Technical solutions Accessories Colors and finishes

Our CE casement windo

Thermia[®] AF35 CE Thermia[®] AF52 CE Thermia® AR52 CE Thermia[®] AR62 CE Thermia[®] AR78+ CE Thermia[®] OC78 LUMIA

Our canal 16 casement

Thermia® AR78+ C16 Thermia® OC78+ C16

Our sliding windows

Thermia® CF22 Thermia® CF26 Thermia® CF31 Thermia[®] CF40 VERSIA Thermia® CR31 Thermia[®] CR40 VERSIA Thermia[®] CR46 MAGNA Thermia® ER52

Other products

Thermia[®] PM40 SHUTTEF Thermia[®] MQ22 MOSQUI Thermia[®] AF52M MULLIO Thermia[®] FS45 QUICK Thermia[®] GR48 GLASS RA Thermia[®] RAILING VELAM louver Thermia[®] PM40 DECOR

Manufacturing Thermia

Manufacture Thermia® wir Install Thermia® windows

Windows for a better lif

Energy efficiency The noise problem

Appendix

Summary of profiles Technical chart of Thermic Acoustic properties of glaz International distribution

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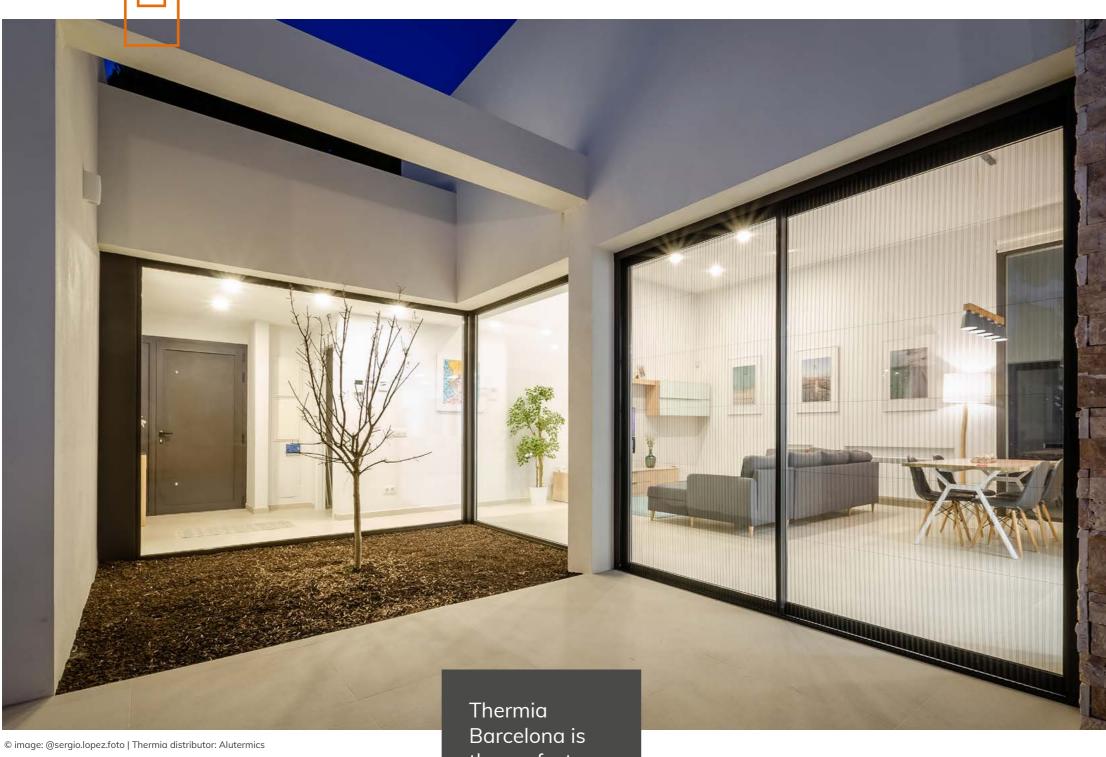
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| a® systems ized windows | 97 102 104 105 |



Our home is our shelter, our temple, our comfort. The place to get in touch with who we are. Where we flow.

We forge stories through objects, and we will talk about ourselves through them and tell our stories from **the window.**





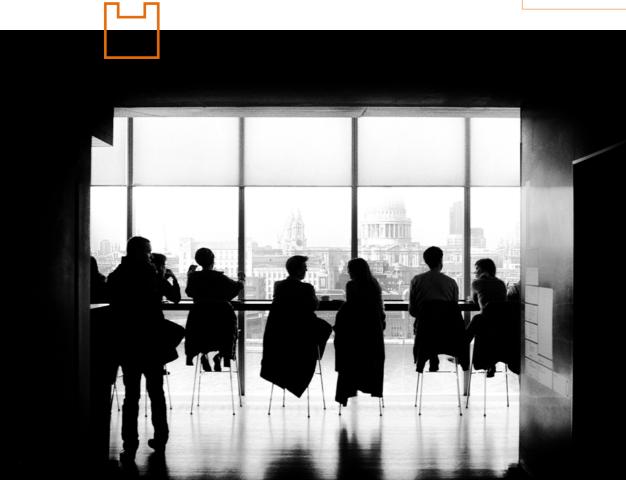
the perfect partner for your projects.



Our products are the result of exhaustive study and design, with the aim of offering the client much more than a window.

Open up a world of possibilities for your business by offering our **windows for a** better life.





Our way of understanding what we do: Thermia **Barcelona's philosophy** and approach

The human capabilities of Thermia Barcelona are what define us as a company. Without our team of involved and committed professionals, it would be very difficult to do what we do.

And this aspect, that of close involvement, is what we try to convey in our dealings with every client. Our commitment extends beyond the purchase of the product. We are committed to advising you, listening to you, and supporting you through every step of your project.



In our eyes a window is...

"We think of a window as something more than a structure embedded in a wall.

For us, a window must go further, creating spaces where there were none before and allowing our home to be bathed in natural light. It should be airtight to protect us from cold and heat, and provide us with a silent environment. It should have a design that harmonizes with the rest of the architecture and facilitate energy savings. A window should help create a more comfortable and functional home, with minimal effort on the part of the user.

For us, a window is nothing less than an opportunity for a better life. And that is why we need to produce a high-quality product. A window of this excellence can only be created through an ingenious de-

Committed, professional creative, technically-minded, involved, transparent, curious, empathic, optimistic, sensitive. That is the approach that we take here at Thermia Barcelona

One of our goals at Thermia Barcelona is offering our clients a quality, long-lasting, and guaranteed product that meets the comfort and design requirements that today's market demands. Our client should feel that they partnered with a professional and responsible team that will guide and support them all the way.

sign system. In other words, all the elements that make up the window must have been studied and must be properly combined so that the window fulfills the mission we have entrusted to it.

The technical area of Thermia Barcelona is constantly looking for ways to improve and fine-tune the system, in order to improve the features of each and every one of our windows."



Design Confort Silence





Thermia Barcelona® systems are extruded and assembled in accordance with ISO 9001 and tested under Standard FN 14351-1:2006.

The surface treatments have the QUALICOAT SEASIDE quality seal for lacquer, QUALIDECO for imitation wood lacquer, and QUALANOD for anodization.

The quality of Thermia[®] windows: a constant from start to finish

In an increasingly demanding market, we must offer our clients an option with maximum assurance of certified quality.

All Thermia Barcelona® enclosure systems are designed and tested in strict compliance with European market regulations, which require high performance in terms of airtightness, durability and performance in inclement weather, together with maximum energy savings.





QUALITY SEALS

THE DIMAC SL 2020 ACCESSORY

EN 1435-1: 2006 THERMIA BARCELONA SERIES

All Thermia Barcelona® systems are tested in laboratories approved to conduct air permeability, watertightness and wind resistance tests.

All Thermia[®] windows are manufactured by speciallytrained professionals to ensure that every component of the window will work properly.





Technical office and in-house test bed facility



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



These departments provide a wealth of benefits, with important examples being:

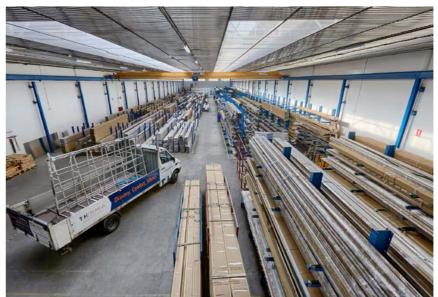
1. Better control and speed in implementing system improvements.

2. System adaptations for specific markets or even individual works.

3. Constant innovation to adapt our product to market changes.

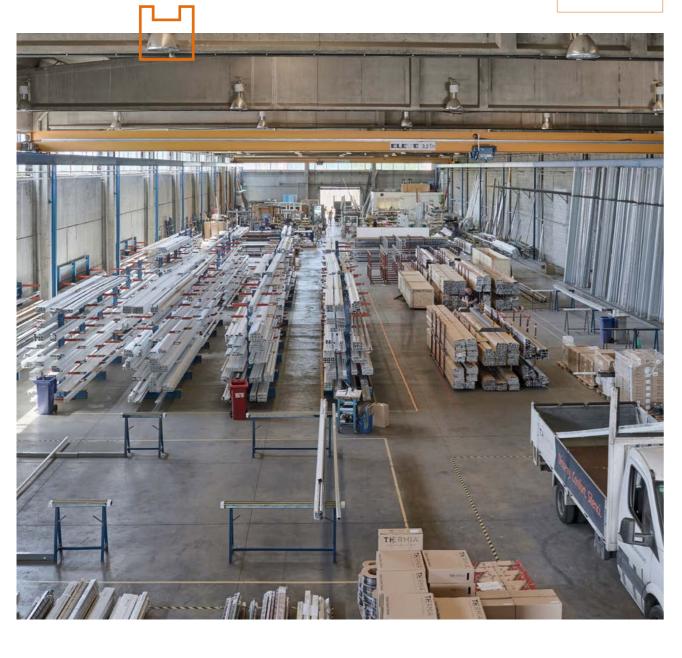








More than 7000m² of facilities to serve our clients



Facilities. Where Thermia® windows are designed and manufactured

Thermia Barcelona's headquarters are located in Sant Quirze del Vallès (Barcelona). This strategic location, in proximity to major international sea ports and airports, allows us to deliver products to our customers at any destination in the world, quickly and efficiently.













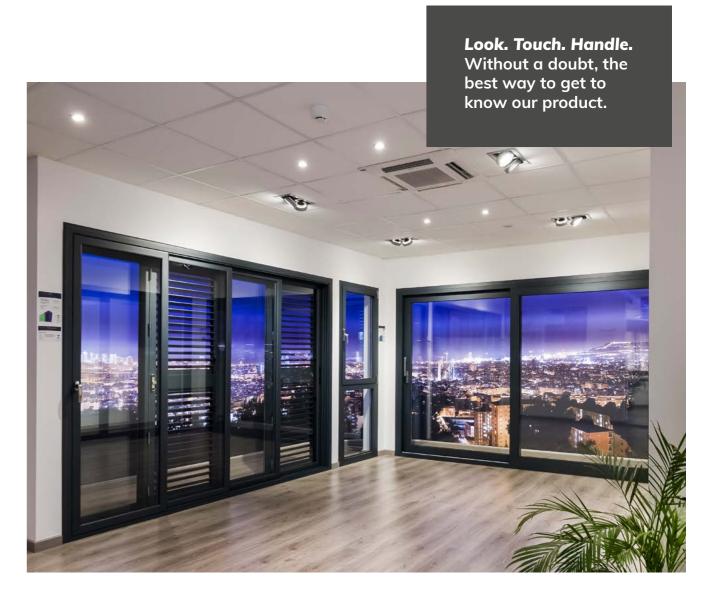




Thermia® showrooms An essential tool

Thermia Barcelona's showrooms have become an essential tool during the sales process for our clients from all backgrounds.

In this interactive space, you can observe the technical features of the system directly, handle every product category, and experience our product quality for yourself. Everything you need to help you or your clients make a decision.







It is worth pointing out that **most visits** to our **showrooms** end in a **sale** Thermia[®] showrooms

The importance of **seeing and touching the product**

Barcelona (Spain)

Girona (Spain)



Location C/Narcís Monturiol 34 08192 Sant Quirze del Vallès, Barcelona (Spain)



Location Carrer Pla de Dalt, 17840 Sarrià de Dalt, Girona (Spain)

Thermia Barcelona currently has 6 of its own showrooms where people from around the world can discover quality aluminum windows.

Lima (Perú)



Location Av. Paseo de la Republica 3583 San Isidro 15047 Lima, Peru Phone. +51 1 7197649

Cusco (Perú)



Location Avenida Pachacutec, 501 Wanchaq, Cusco, Peru Phone. +5117197649

Arequipa (Perú)



Location

Av. independencia 1244, esquina 2 de Mayo, 04001 Arequipa, Peru Phone. +51 959604480

Trujillo (Perú)



Location Avenida Pachacutec, 501 Wanchaq, Cusco, Peru Phone. +5117197649



Location: Costa Brava – Catalonia, Spain Architect: XS arquitectes © Images Eugeni Pons. All rights reserved.

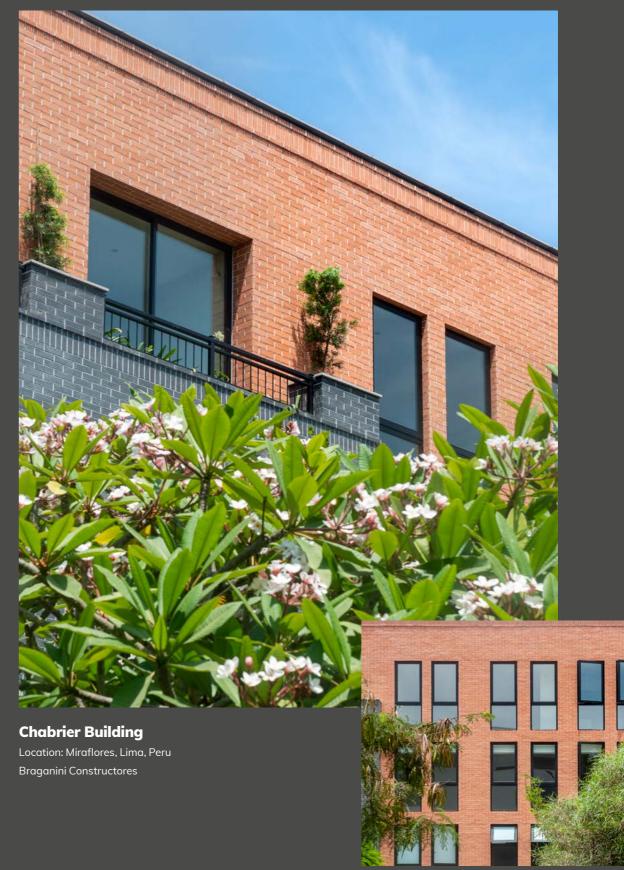




Thermia[®] windows around the world **Completed works**



Windows for a better life





Design Confort Silence









Casa RDP



Casa RDP Location: Quito. Ecuador. Architects: Daniel Moreno Flores / Sebastián Calero

Winner of the Quito Architecture Biennial BAQ2016 Finalist in the Latin American Architecture Biennial 2017

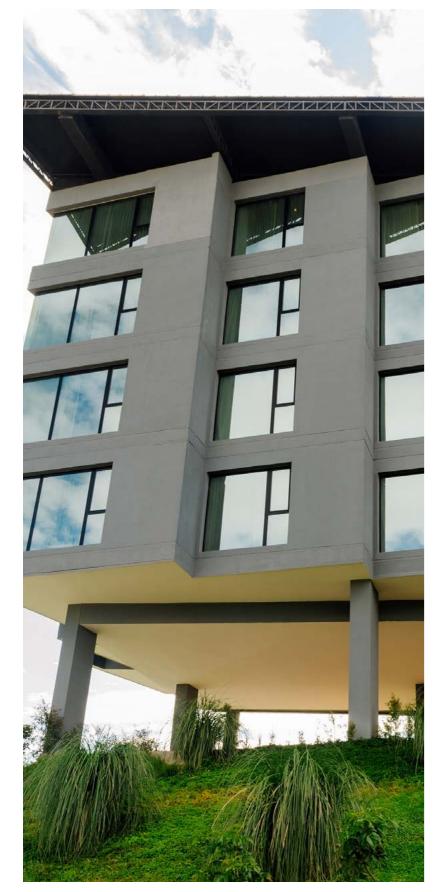




Works







Hotels. Quieter, better insulated guest rooms, leading to a higher rate of satisfaction.







Wyndham Hotel Quito International Airport Location: Mariscal Sucre Airport - Quito, Ecuador. Architect: Grupo Pronobis.



Works





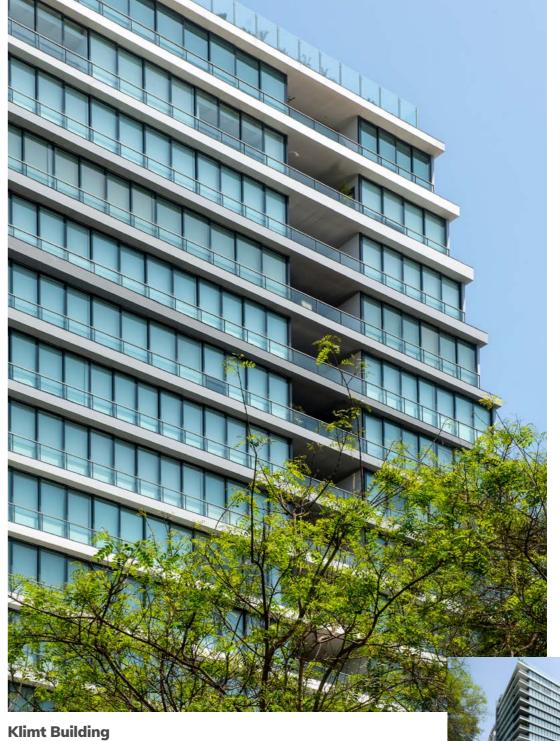




Thermia® windows in Spain, France, Peru, Colombia, Ecuador, Chile, Uruguay, El Salvador, Costa Rica, Panama, Dominican Republic, India.







Klimt Building Location: Miraflores District - Lima, Peru Architect: Bernardo Fort Brescia.

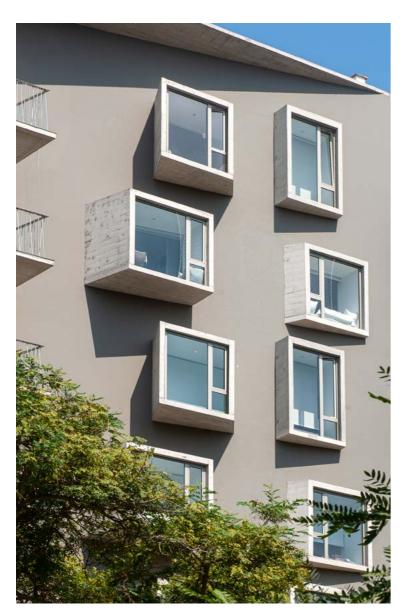
Klimt Building











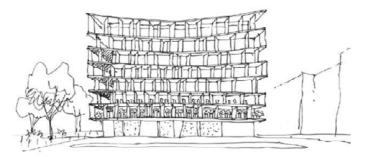
United Nations Building

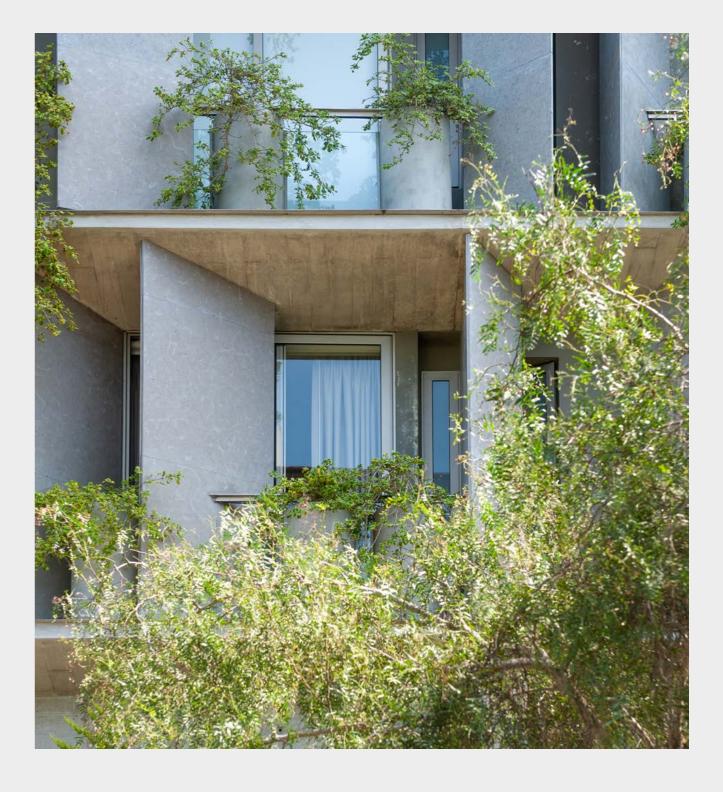
Location: Miraflores District - Lima, Peru Architects: Sandra Maria Barclay Panizo, Jean Pierre Crousse De Vallongue Rastelli.

Winner of the PAC Award (LIMA 2019 Architecture and City Award) 2019 low and medium-density multifamily housing category.











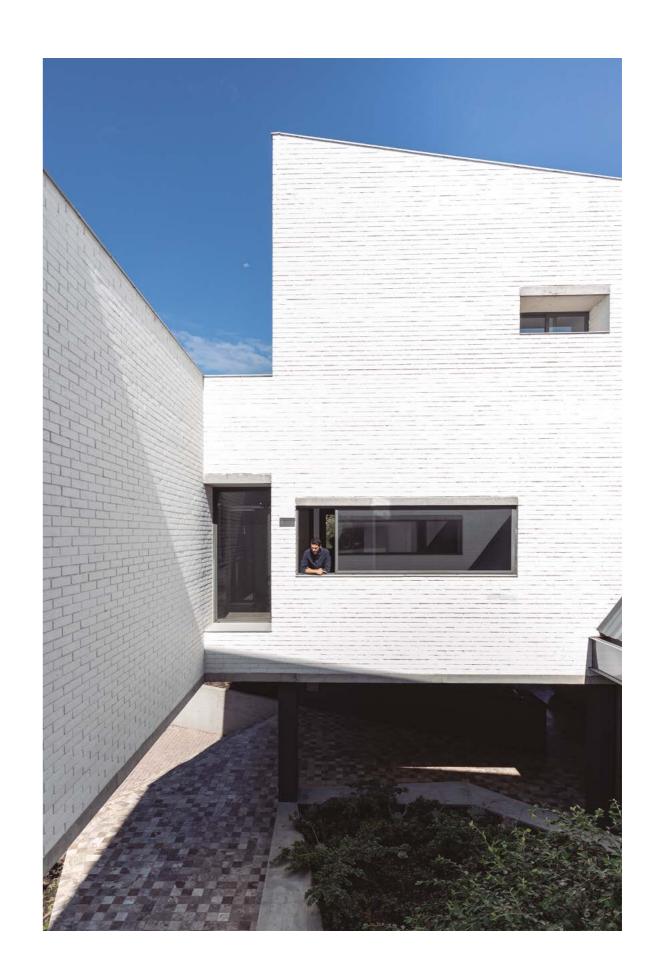




'Casa Natura' Location: Valle del Tumbaco, Ecuador Architects: Diez + Muller

Winner of the Quito Architecture Biennial BAQ2016 Finalist in the Latin American Architecture Biennial 2017





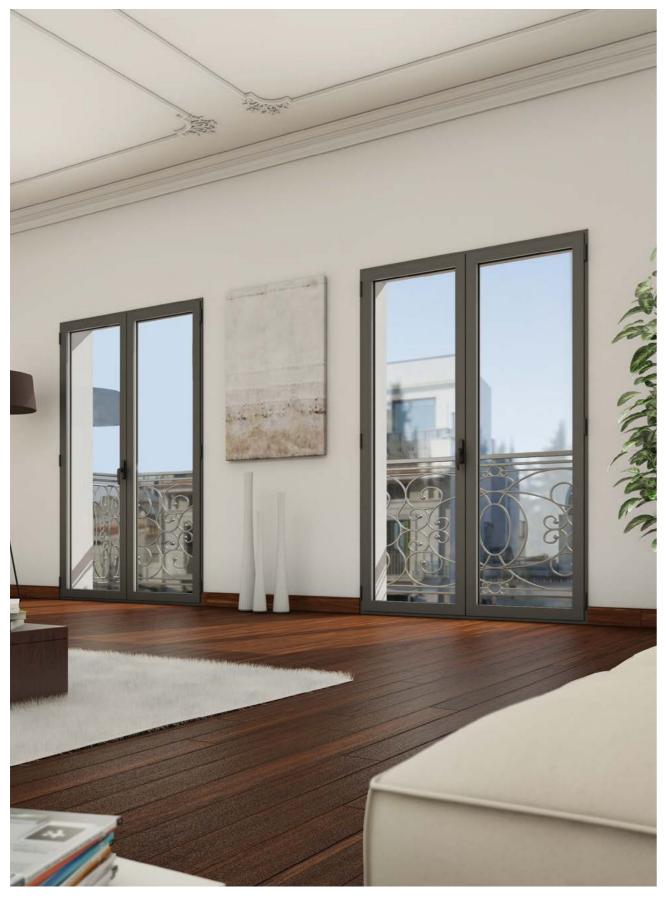




A Thermia® window for everyone

Thermia[®] systems have been developed to provide a solution for every type of architectural structure. Everything is conceived to allow our clients to choose:





Technical solutions Windows for all types of projects.



Hidden leaf.

Internal shutter.

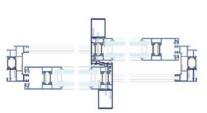
Design

Confort Silence

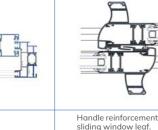
AESTHETIC SOLUTIONS

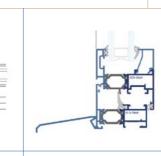






Minimalist center





Lower tray.

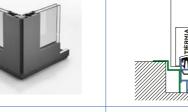
Straight aesthetics door.

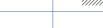


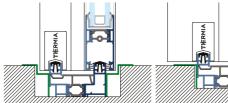


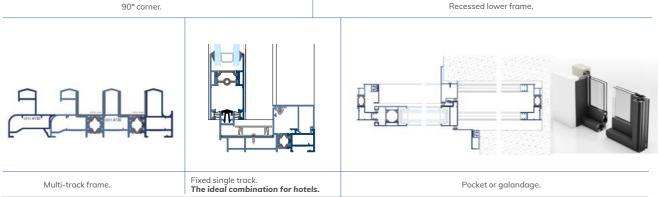














Accessories Getting the details right

1 / MANEUVER ACCESSORIES

Manufactured pursuant to the ISO 9001:2008 quality management standard and ISO 14001:2004 on environmental management and EN1670; ISO4628-2; ISO10289; ISO 2081 in terms of exposure to corrosion in a salt-spray chamber (24 hours).

Casement, outwards opening, and tilting cremone fittings: pursuant to EN 13126-1 and 4 and tested for 25,000 cycles. Comprising cast aluminum and stainless steel.

Tilt and turn fittings: Pursuant to EN 13126-1 and 4. Tested for 25,000 cycles, and weight of up to 130 kg/leaf. Made with high-density zamak with an anti-corrosion treatment and stainless steel.

Multi-point fittings for sliding systems: Pursuant to EN 13126-1 and 4 and tested for 25,000 cycles.

Projecting stay hinges: Pursuant to EN 13126-1 and 4 and tested for 25,000 cycles. Made of stainless steel.

Pressure closing devices: Pursuant to EN 13126-2 and tested for 25,000 cycles.

Window hinges (A0003120): Pursuant to EN 13126-1 and 4 and tested for 200,000 cycles. 70 kg loads. (2 hinges) and 90 kg. (3 hinges). Comprising extruded aluminum and stainless steel.

Door hinges (A0003130): Pursuant to EN 13126-1 and 4 and tested for 200,000 cycles. 90 kg loads. (2 hinges) and 110 kg. (3 hinges). Comprising extruded aluminum and stainless steel.

Closing devices: Pursuant to UNI EN 12209 for the range of 1 side closing devices and EN 15685 for multi-point closing devices.

Main frame and leaf closing elements: Pursuant to EN 13126-1 and UNI EN 12051 and tested for 10,000 cycles.

2 / BUILT-IN CLOSING DEVICES FOR SLIDING FIXTURES: Pursuant to EN 1670. Tested at SGI

International for 20,000 cycles.

and fiberglass.



3 / BEARINGS FOR SLIDING FIXTURES

Manufactured pursuant to ISO 9001 on quality management and UNI EN 13126-15. Tested for 10,000 or 25,000 cycles depending on the reference.

4 / AIRTIGHTNESS AND WATERTIGHTNESS ELEMENTS AND

ACCESSORIES

EN 12635.

UV rays.

sheet.

Pursuant to ISO 9001 on quality management and manufactured pursuant to ISO 3302 on tolerances and UNE

Sealing and glazing gaskets: Manufactured in EPDM 70 SHORE rubber of

the highest quality, resistant to weather and

Brush weather-stripping: Pursuant to AAMA 701 and 702, manufactured using textured, siliconized multifilament polypropylene yarn stabilized against UVA rays, with a middle non-woven fabric sheet. Brush weather-stripping ultrasonically welded to the stiff

polypropylene base.

Air seal: Extruded, anodized and madeto-measure aluminum base. Textured, siliconized multifilament polypropylene yarn stabilized against UVA rays, with a middle

5 / ASSEMBLY ACCESSORIES

Manufactured pursuant to ISO 9001 on quality management.

Corner joints: Manufactured using cast or extruded aluminum and Dracomet 320-coated M6 screws, zamac buttons, and reinforced steel springs.

Alignment joints: Stainless steel

6 / OTHER ACCESSORIES (Plastic molded parts pertaining to the system) Manufactured pursuant to ISO 9001 on quality management.

Decorative elements: Polyester materials, high-density PA6 polyamide.

Functional elements: PA6+TPE, polyamide



Only the best accessory brands guarantee that windows will work properly and keep performing for a long time. This is why **Thermia** Barcelona[®] windows are made exclusively with accessory brands manufactured in accordance with European standards.



Every component of the window has undergone open-close cycle testing and corrosion measurement in a salt-spray chamber.





Windows for a better life

Qualanod seal for anodization

License number: 1014

Qualideco seal for imitation wood

License number: ES-0009F

Qualicoat seal

for lacquer

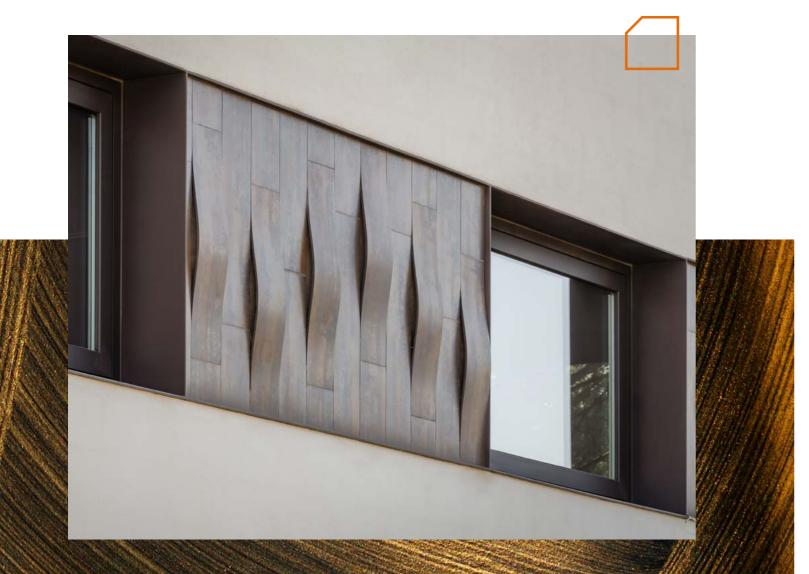
License number: 405

Quality seals



Design

At Thermia Barcelona[®], we understand the importance of design in the architectural world, and that is why we offer today's most sought-after colors and finishes at the best price. So that you can add that special touch to your projects.



Profile surfaces are treated to ensure long-lasting windows. Every treatment has a quality seal, meaning that every Thermia window manufactured or sold to your clients is synonymous with reliability and durability.



Thermia[®] windows

| Gloss | Matte | Texture | ~ | Special price | | Gloss | Matte | Texture |
|-------|--------------|--------------|----------------|----------------------------|---|-------|--------------|--------------|
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| | \checkmark | × | \checkmark | Noir 200 | | × | Х | \checkmark |
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Design Confort **Silence**



Thermia Barcelona® Series

Systems for aluminum windows



THERMIA[®] AF52M MULLION SERIES THERMIA[®] FS45 QUICK SERIES



THERMIA® AR52 CE SERIES



THERMIA® AR78+ C16 SERIES





THERMIA[®] CR46 MAGNA SERIES



THERMIA[®] MQ22 MOSQUITO SCREEN SERIES





THERMIA[®] AR62 CE SERIES



THERMIA[®] OC78+ C16 SERIES



THERMIA[®] CR31 SERIES



THERMIA® ER52 SERIES



THERMIA[®] GR48 GLASS RAIL SERIES

Thermia[®] AF35 CE The basic, effective window

| SERIES FEATURES | |
|-----------------------------------|---------|
| Thermal break | No |
| Main frame | 35 mm |
| Main leaf | 35 mm |
| General thickness of the profiles | 1.2 mm |
| Maximum casement glazing | 8-21 mm |
| Maximum casement leaf weight | 90 Kg |
| Tilt and turn leaf maximum weight | 130 Kg |
| Available profiles | Window |

Estimated sound attenuation up to Rw **34 dB.** Window size: 1.23 m x 1.45 m with acoustic ACOUSTICS ¶) laminated glass of 4.4/cam/4.4A



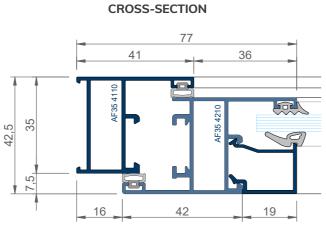
Qualideco seal for the

imitation wood

License number: ES-0009F



Results of official tests performed on Applus® and on the basis of Annex E of standard EN-14351-1:2006



Qualanod seal for anodization

License number: 1014

TEST RESULTS

Qualicoat seal for

lacquer License number: 405 Certifi



EN14351-1:2006+A2:2016

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Thermia® AF52 CE

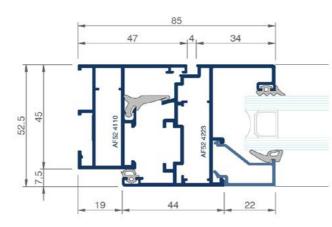
Safe ventilation and energy saving

| SERIES FEATURES | |
|-----------------------------------|---------------|
| Thermal break | No |
| Main frame | 45 mm |
| Main leaf | 52 mm |
| General thickness of the profiles | 1.5 mm |
| Maximum casement glazing | 27 mm |
| Maximum casement leaf weight | 90 Kg |
| Tilt and turn leaf maximum weight | 130 Kg |
| Available profiles | Window / Door |

Estimated sound attenuation up to Rw **39 dB. €**) ACOUSTICS Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A



CROSS-SECTION



Ш

Air permeability ය Watertightness <mark>9A</mark> ()Wind resistance C5

Results of official tests performed on ENSATEC® 146488 and on the basis of Annex E of standard EN-14351-1:2006

Qualanod seal for anodization

se number: 1014

TEST RESULTS



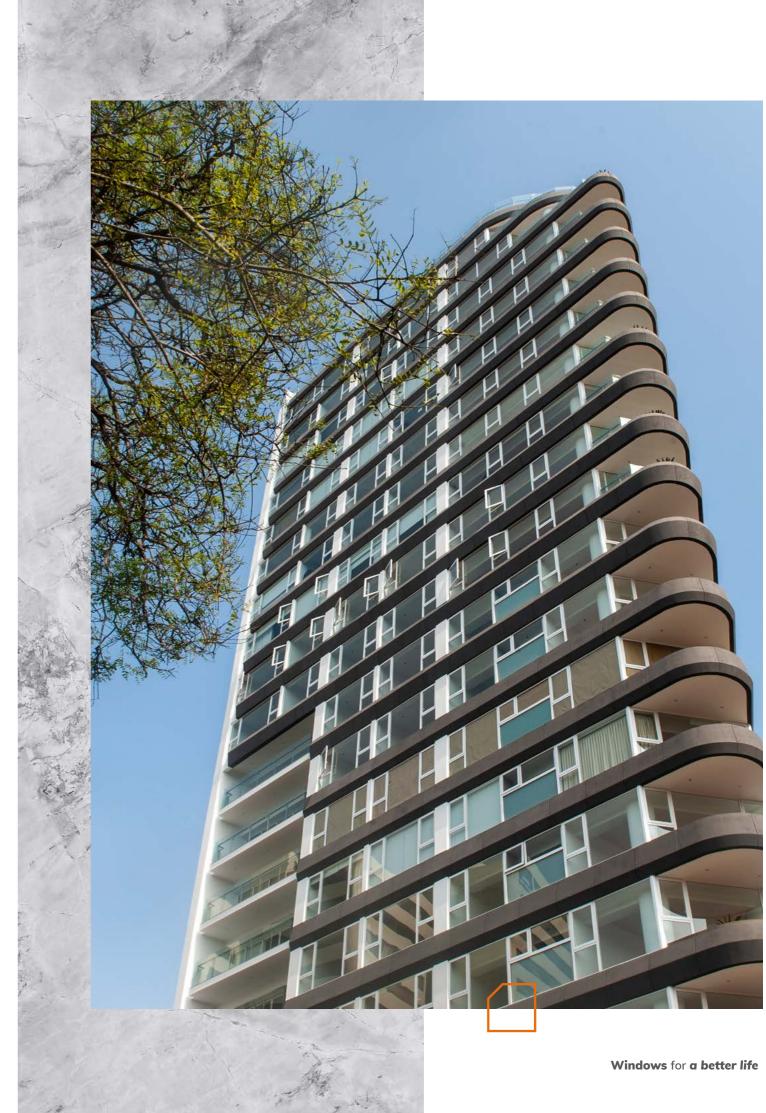
Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016

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Thermia® AR52 CE Thermal insulation and acoustic isolation for everyone

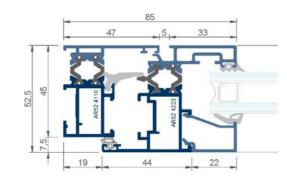
| SERIES FEATURES | |
|-----------------------------------|---------------|
| Thermal break | Yes / 14 mm |
| Main frame | 45 mm |
| Main leaf | 52 mm |
| General thickness of the profiles | 1.5 -1.6 mm |
| Maximum casement glazing | 27 mm |
| Maximum casement leaf weight | 90 Kg |
| Tilt and turn leaf maximum weight | 130 Kg |
| Available profiles | Window / Door |

| | THERMAL | Window Uw = 1.56 W/m²k * * Based on EN 10077-02 1.5x2.4 m balcony door glass Ug=1.1 ψ= 0.053 |
|--------|-----------|---|
| ۳ پ | ACOUSTICS | Estimated sound attenuation up to Rw 40 dB. Window size: 1.23 m x 1.45 m with acoustic lami- nated glass of 4.4/cam/4.4A |

Watertightness Window: <mark>9A Balcony door: 6A</mark>

Wind resistance Window: C4 Balcony door: C2

CROSS-SECTION



Results of official tests performed on ENSATEC® 212454 and 212466 and on the basis of Annex E of standard EN-14351-1:2006

Air permeability

TEST RESULTS



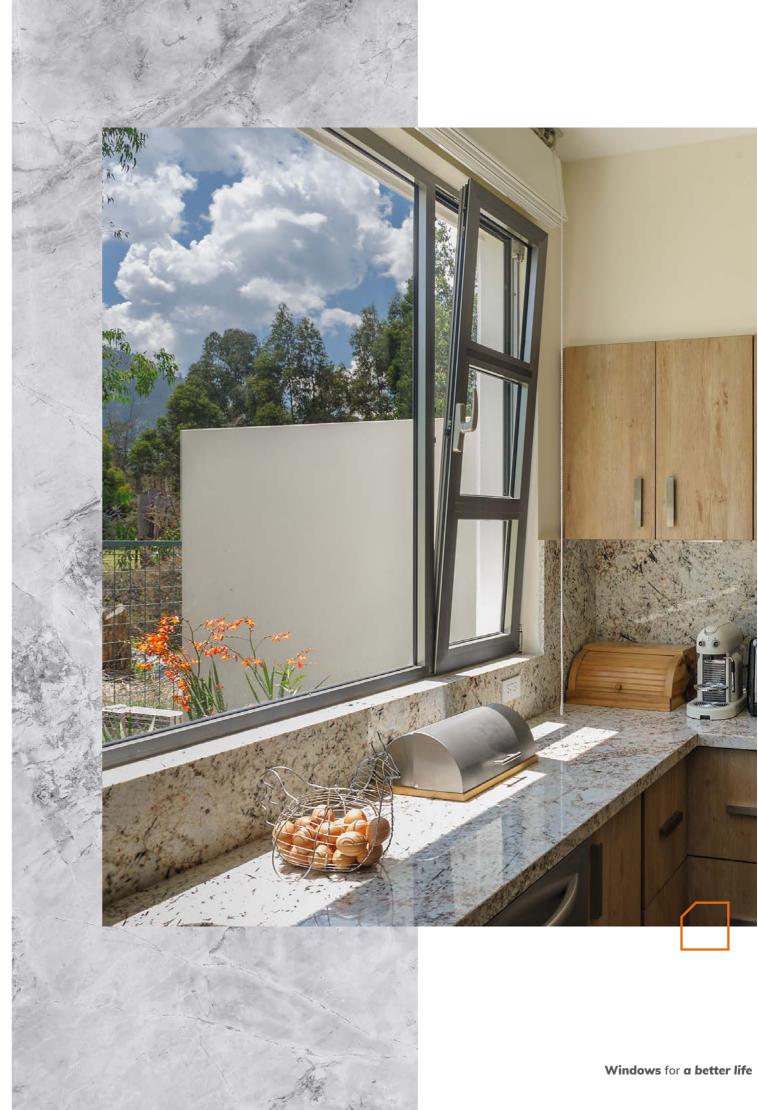
Qualicoat seal for lacquer ber: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016

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Qualanod seal for anodization nber: 1014

Thermia® AR62 CE Guaranteed savings and well-being

| SERIES FEATURES | |
|-----------------------------------|---------------|
| Thermal break | Yes / 24 mm |
| Main frame | 55 mm |
| Main leaf | 62 mm |
| General thickness of the profiles | 1.5 -1.6 mm |
| Maximum casement glazing | 37 mm |
| Maximum casement leaf weight | 90 Kg |
| Tilt and turn leaf maximum weight | 130 Kg |
| Available profiles | Window / Door |

| | THERMAL | Window Uw = 1.46W/m²k * * Based on EN10077-02 Single-leaf 1.5x2.4 m balcony door glass Ug=1.1 ψ= 0.053 |
|--------|-----------|---|
| ۳ ۱ | ACOUSTICS | Estimated sound attenuation up to Rw 42 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A |



TEST RESULTS

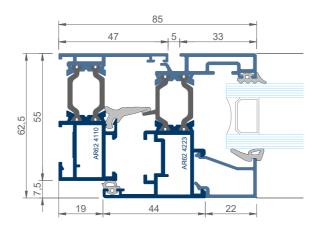
AR62 CE

CASEMENT / The



Results of official tests performed on ENSATEC® 212454 and 212466 and on the basis of Annex E of standard EN-14351-1:2006

CROSS-SECTION



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License number: 1014



Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® AR78+ CE

The solution for the most demanding clients

| SERIES FEATURES | |
|-----------------------------------|---------------|
| Thermal break | Yes / 24 mm |
| Main frame | 70 mm |
| Main leaf | 78 mm |
| General thickness of the profiles | 1.5 -1.8 mm |
| Maximum casement glazing | 49 mm |
| Maximum casement leaf weight | 90 Kg |
| Tilt and turn leaf maximum weight | 130 Kg |
| Available profiles | Window / Door |

| | THERMAL | Window Uw = 1.07 W/m²k * * Based on EN10077-02 Single-leaf 1.7x2.6 m balcony door glass Ug=0.7 Ψ= 0.046 |
|--------|-----------|---|
| ۳ پ | ACOUSTICS | Estimated sound attenuation up to Rw 45 dB. Window size: 1.23 m x 1.45 m with acoustic lami- nated glass of 4.4/cam/4.4A |

Air permeability

Watertightness

Wind resistance Window: C5 Balcony door: C4

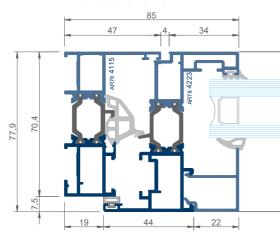
Results of official tests performed on Applus® and on the basis of

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Annex E of standard EN-14351-1:2006



CROSS-SECTION



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ense number: 1014

TEST RESULTS

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Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



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Thermia® OC78 LUMIA The importance of light

| SERIES FEATURES | |
|-----------------------------------|-----------------|
| Thermal break | Yes / 24 mm |
| Main frame | 70 mm |
| Main leaf | 66 mm |
| General thickness of the profiles | 1.4 mm - 1,5 mm |
| Maximum casement glazing | 30 mm |
| Maximum casement leaf weight | 160 Kg / leaf |
| Tilt and turn leaf maximum weight | 160 Kg / leaf |
| Available profiles | Window / Door |

| | THERMAL | Window Uw = 1.30 W/m²k * * Based on EN10077-02 1.2x2.4 mm window glass Ug= 1.0 ψ= 0.053 |
|--------|-----------|--|
| ۳ پ | ACOUSTICS | Estimated sound attenuation up to Rw 41 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 44/cam/44.1 |

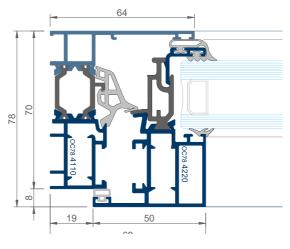


TEST RESULTS



Results of test reports at ENSATEC® lab, document no. 250711, and based on Annex of standard EN 14351 - 1:2006+A2:2016

CROSS-SECTION



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



EN14351-1:2006+A2:2016



Thermia® AR78+ C16 More light with less aluminum

| SERIES FEATURES | |
|-----------------------------------|---------------------|
| Thermal break | Yes / 14 mm |
| Main frame | 70 mm |
| Main leaf | 78 mm |
| General thickness of the profiles | 1.5 mm |
| Maximum casement glazing | 49 mm |
| Maximum casement leaf weight | 90 kg / door 100 kg |
| Tilt and turn leaf maximum weight | 100 Kg |
| Available profiles | Window / Door |

| Estimated sound attenuation up to Rw 45 dB. | | THERMAL | Window Uw = 1.17/m²k * * Based on EN 10077-02 Single-leaf 1.7x2.6 balcony door glass Ug= 0.7 ψ = 0.046 |
|---|-------------|-----------|---|
| (U) ACOUSTICS Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A | ₩ ĵ» | ACOUSTICS | Window size: 1.23 m x 1.45 m with acoustic |

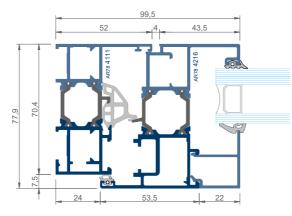


TEST RESULTS



Results of official tests performed on Applus® and on the basis of Annex E of standard EN-14351-1:2006 $\,$

CROSS-SECTION



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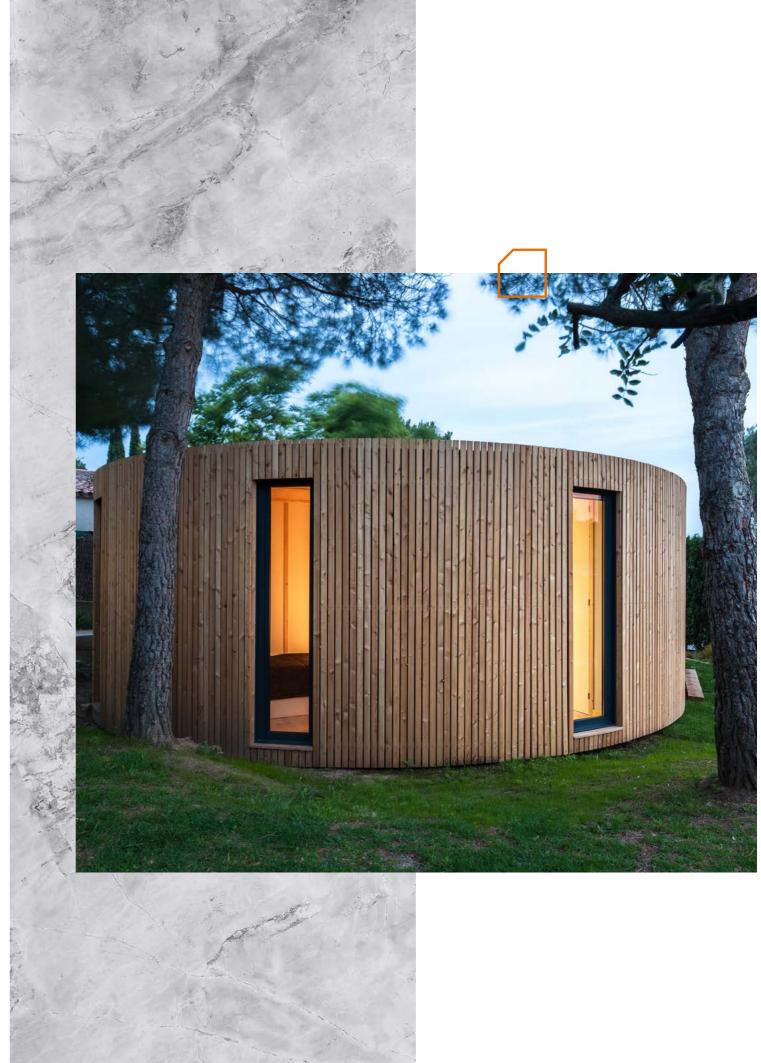
License number: 1014



Qualicoat seal for lacquer License number: 405 Qualideco seal for the imitation wood License number: ES-0009F



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® OC78+ C16

More light with less aluminum

| SERIES FEATURES | |
|-----------------------------------|-------------|
| Thermal break | Yes / 32 mm |
| Main frame | 70 mm |
| Main leaf | 66 mm |
| General thickness of the profiles | 1.5 mm |
| Maximum casement glazing | 28 mm |
| Maximum leaf weight | 100 Kg |
| Available profiles | Window |

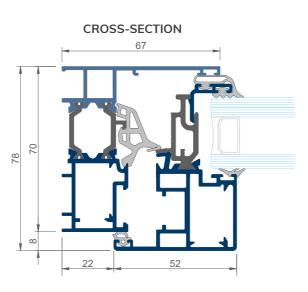
| | THERMAL | Window Uw = 1.47/m²k * * Based on EN 10077-02 Single-pane 1.2x2.4 balcony door glass Ug= 1,1 ψ= 0.053 |
|-----|-----------|---|
| ₩Ţ» | ACOUSTICS | Estimated sound attenuation up to Rw 41 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A |



TEST RESULTS



Results of official tests performed on Applus $\ensuremath{\mathbb{R}}$ and on the basis of Annex E of standard EN-14351-1:2006



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THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® CF22 Design and comfort for everyone

| SERIES FEATURES | | | |
|---------------------------------------|---------------|--|--|
| Thermal break | No | | |
| Main frame | 35 mm | | |
| Main leaf | 22 mm | | |
| General thickness of the profiles | 1.2 mm | | |
| Maximum glazing | 8 mm / 15 mm | | |
| Maximum leaf weight | 80 Kg | | |
| Track option | 2 tracks | | |
| 90° frameless "KISS" closure solution | No | | |
| Available profiles | Window / Door | | |
| | | | |

Estimated sound attenuation up to Rw **33 dB.** Window size: 1.23 m x 1.45 m with acoustic lami-ACOUSTICS nated glass of 6.6

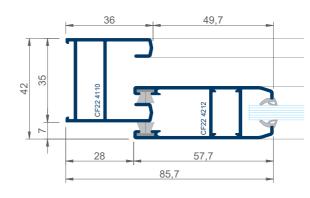


TEST RESULTS



Results of official tests performed on Applus® 15/10169-752 and on the basis of Annex E of standard EN-14351-1:2006

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License number: 1014

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Qualicoat seal for lacquer License number: 405

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



EN14351-1:2006+A2:2016

Certification



Thermia® CF26 Extraordinarily versatile windows

| SERIES FEATURES | |
|---------------------------------------|----------------------|
| Thermal break | No |
| Main frame | 65 mm |
| Main leaf | 26 mm |
| General thickness of the profiles | 1.3 mm |
| Maximum glazing | 10 mm / 17 mm |
| Maximum leaf weight | 120 Kg |
| Track option | 2,3,4 or more tracks |
| 90° frameless "KISS" closure solution | No |
| Available profiles | Window / Door |

Estimated sound attenuation up to Rw **36 dB.** ACOUSTICS Window size: 1.23 m x 1.45 m with acoustic laminated glass of 44.A/cam/44.A

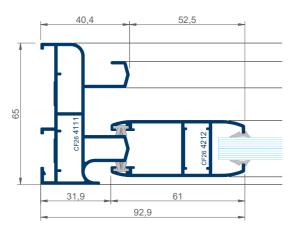


TEST RESULTS



Results of internal tests performed on ENSATEC[®] on the basis of Annex E of standard EN-14351-1:2006

CROSS-SECTION



Certification



License number: 1014

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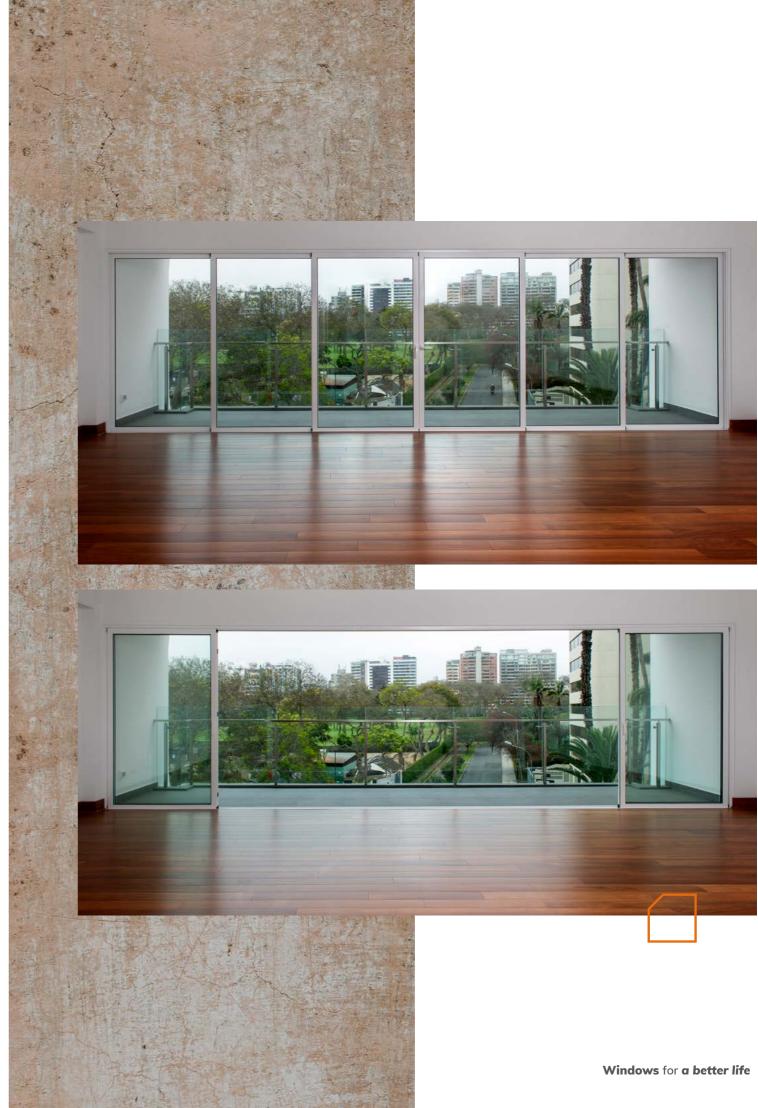


Qualicoat seal for lacquer License number: 405

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



EN14351-1:2006+A2:2016



Thermia® CF31 Enjoy the outdoors without sacrificing silence

| SERIES FEATURES | |
|---------------------------------------|-----------------------|
| Thermal break | No |
| Main frame | 75 mm |
| Main leaf | 31 mm |
| General thickness of the profiles | 1.5 mm |
| Maximum glazing | 10 mm - 21 mm |
| Maximum leaf weight | 160 Kg |
| Track option | 2,3,4 or more tracks |
| 90° frameless "KISS" closure solution | Yes |
| Available profiles | Window / Balcony Door |

Estimated sound attenuation up to Rw 36 dB. ACOUSTICS Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A

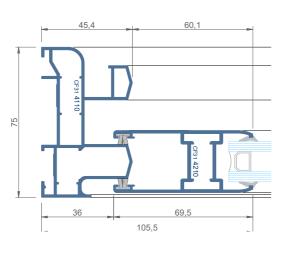


TEST RESULTS



Results of tests performed on ENSATEC® on the basis of Annex E of standard EN-14351-1:2006

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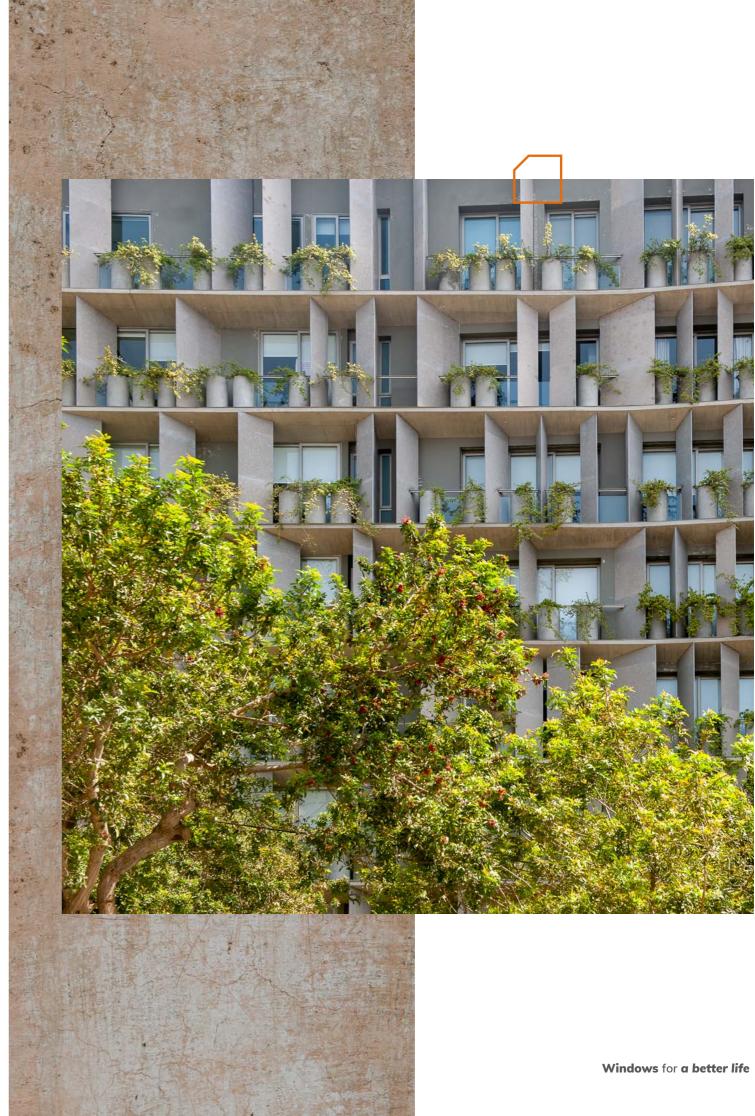


Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® CF40 VERSIA

Design, versatility, and imagination

| SERIES FEATURES | |
|---------------------------------------|-----------------------|
| Thermal break | No |
| Main frame | 65 mm |
| Main leaf | 40 mm |
| General thickness of the profiles | 1.4 mm - 1.6 mm |
| Maximum glazing | 28 mm |
| Maximum leaf weight | 160 Kg - 200 Kg |
| Track option | 2, 3 or more tracks |
| 90° frameless "KISS" closure solution | Yes |
| Pocket solution | Yes |
| Available profiles | Window / Balcony Door |



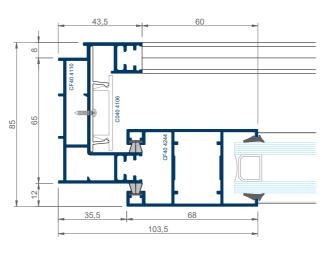
Estimated sound attenuation up to Rw 39 dB. ACOUSTICS Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A

TEST RESULTS



Results of official tests performed on Ensatec 244728 -243212 and on the basis of Annex E of standard EN-14351-1:2006 + A2:2016.

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Qualicoat seal for lacquer License number: 405

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



EN14351-1:2006+A2:2016



Thermia® CR31

Windows to bring together the indoors and the outdoors

| SERIES FEATURES | |
|---------------------------------------|-----------------------|
| Thermal break | Yes 14 mm - 24 mm |
| Main frame | 75 mm |
| Main leaf | 31 mm |
| General thickness of the profiles | 1.5 mm |
| Maximum glazing | 24 mm |
| Maximum leaf weight | 160 Kg |
| Track option | 2,3,4 or more tracks |
| 90° frameless "KISS" closure solution | Yes |
| Available profiles | Window / Balcony Door |

| | THERMAL | Window Uw = 1.79 W/m²k * * Based on EN 10077-02 2.8x2.2 balcony door glass Ug= 1.1 ψ= 0.053 |
|--------|-----------|---|
| ۳ پ | ACOUSTICS | Estimated sound attenuation up to Rw 37 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A |



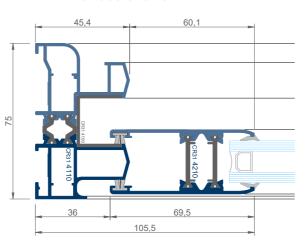
TEST RESULTS

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Results of official tests performed on Ensatec 232625 and 232626 and on the basis of Annex E of standard EN-14351-1:2006

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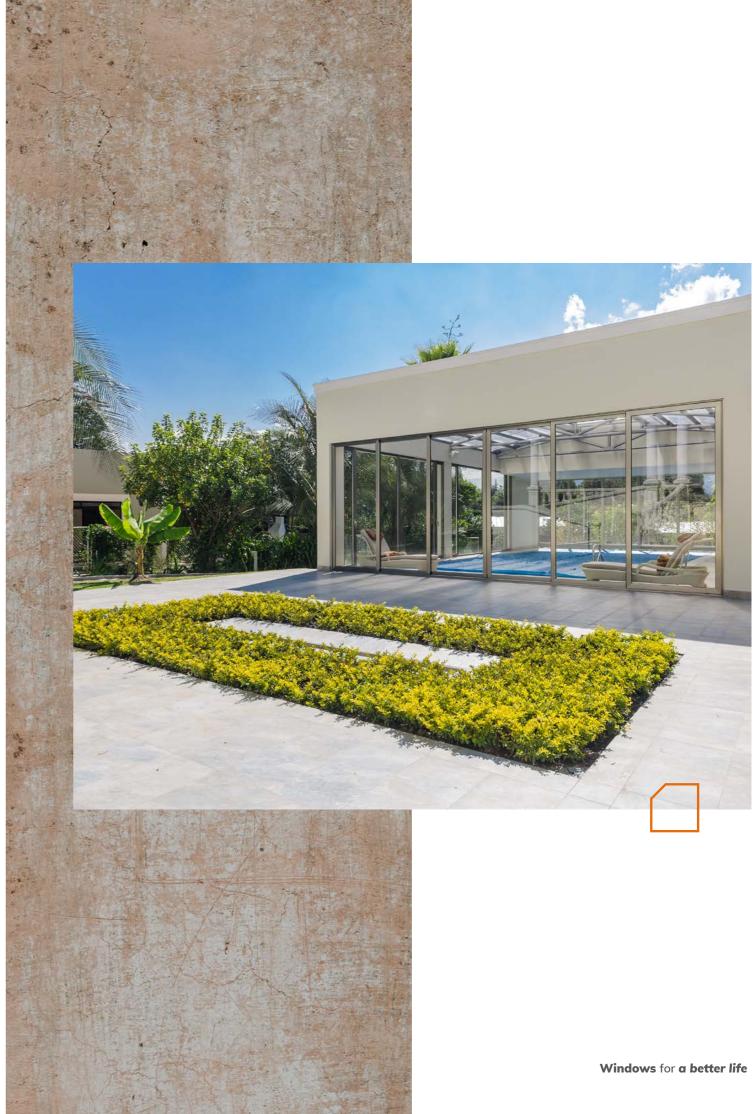


Qualicoat seal for lacquer License number: 405

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



EN14351-1:2006+A2:2016



Thermia® CR40 VERSIA The basic, effective window

| SERIES FEATURES | |
|---------------------------------------|-----------------------|
| Thermal break | Yes, 24 mm |
| Main frame | 65 mm |
| Main leaf | 40 mm |
| General thickness of the profiles | 1.4 mm / 1.6 mm |
| Maximum glazing | 28 mm |
| Maximum leaf weight | 200 Kg |
| Track option | 2, 3 or more tracks |
| 90° frameless "KISS" closure solution | Yes |
| Pocket solution | 1,2 and 3 leaves |
| Available profiles | Window / Balcony Door |

| | THERMAL | Window Uw = 1.58 W/m²k * * Based on EN 10077-02 3.2x2.4 balcony door glass Ug= 1.1 ψ= 0.053 |
|--------------|-----------|---|
| ₽ ∑ĵ) | ACOUSTICS | Estimated sound attenuation up to Rw 40 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A |

TEST RESULTS

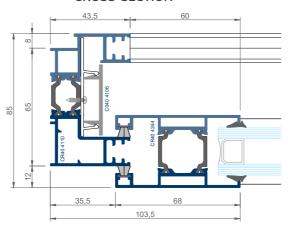
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Results of official tests performed on ENSATEC® 244728 -243212 and on the basis of Annex E of standard EN-14351-1:2006 + A2:2106.

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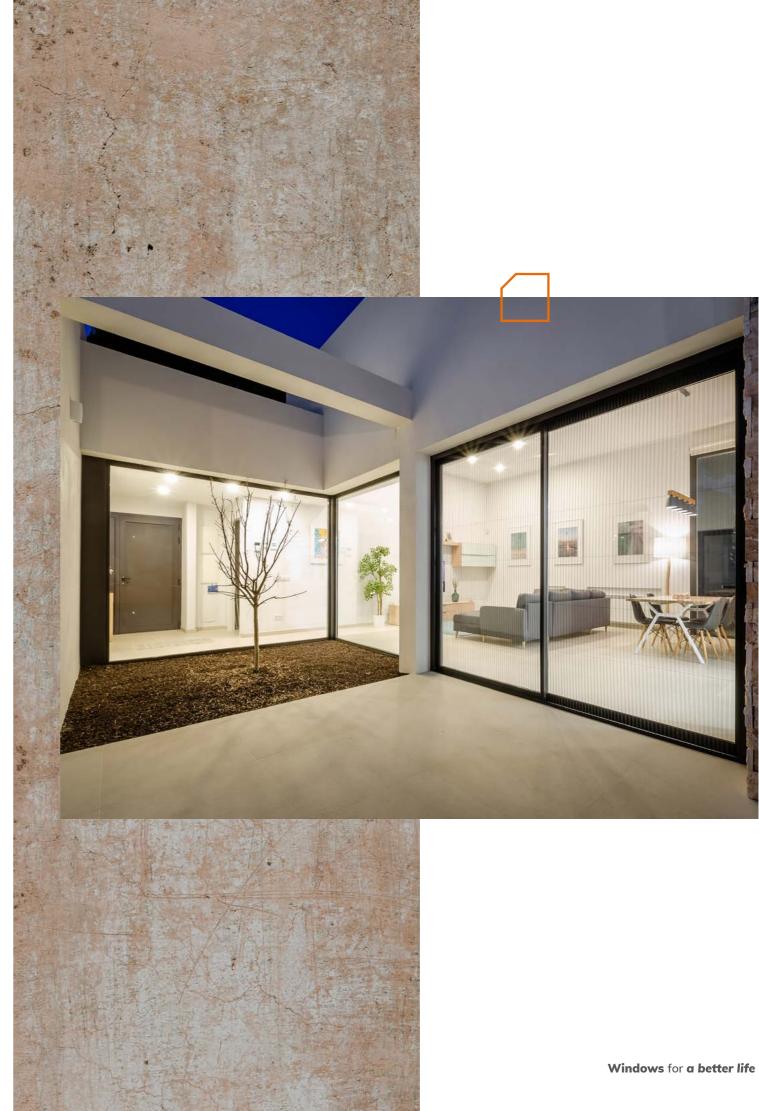


Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® CR46 MAGNA Connect with the outdoors

| SERIES FEATURES | | | |
|---------------------------------------|-----------------------|--|--|
| Thermal break | Yes / 24 mm | | |
| Main frame | 65 mm | | |
| Main leaf | 46 mm | | |
| General thickness of the profiles | 1.6 mm | | |
| Maximum glazing | 34 mm | | |
| Maximum leaf weight | 300 Kg / leaf | | |
| Track option | 2, 3 or more tracks | | |
| 90° frameless "KISS" closure solution | Yes | | |
| Available profiles | Window / Balcony Door | | |

| | THERMAL | Window Uw = 1.60 W/m²k * * Based on EN 10077-02 Balcony Door 3.2 x 2.4 glass Ug= 1.00 ψ = 0.053 |
|---------------|-----------|--|
| ∎ ()» | ACOUSTICS | Estimated sound attenuation up to Rw 38 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 44.A/cam/44.A |

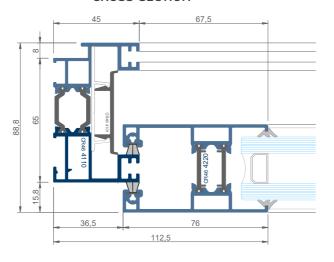


TEST RESULTS



Results of test reports at ENSATEC lab, document no. 250712, and based on Annex of standard EN 14351 - 1:2006+A2:2016

CROSS-SECTION



Certification



License number: 1014

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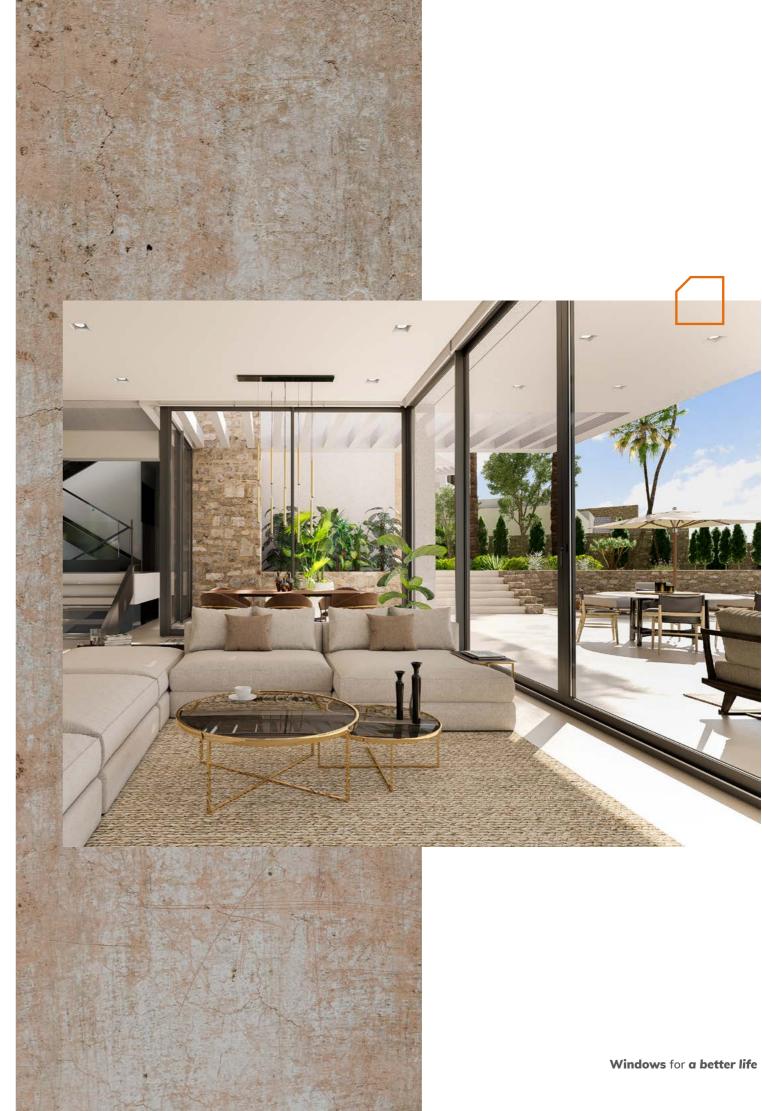


Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia[®] ER52 Size is not a problem

| SERIES FEATURES | |
|---------------------------------------|-----------------------|
| Thermal break | Yes 14 mm - 24 mm |
| Main frame | 125 mm |
| Main leaf | 52 mm |
| General thickness of the profiles | 1.8 mm |
| Maximum glazing | 30 mm |
| Maximum leaf weight | 400 Kg / leaf |
| Track option | 2 or 3 tracks |
| 90° frameless "KISS" closure solution | No |
| Available profiles | Window / Balcony Door |

| | THERMAL | Window Uw = 1.84 W/m²k * * Based on EN 10077-02 4.5x2.8 balcony door glass Ug= 1.1 ψ= 0.053 |
|--------------|-----------|---|
| ₽ Ĵ?) | ACOUSTICS | Estimated sound attenuation up to Rw 44 dB. Window size: 1.23 m x 1.45 m with acoustic laminated glass of 4.4/cam/4.4A |



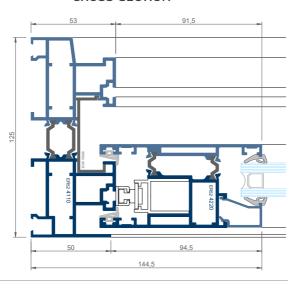
TEST RESULTS

DOUBLE HUNG / Thermia



Results of official tests performed on Applus® 10/323000370 - 09/32302504 - 09/32302670 and on the basis of Annex E of standard EN-14351-1:2006

CROSS-SECTION



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License number: 1014

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Qualicoat seal for lacquer License number: 405

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



EN14351-1:2006+A2:2016

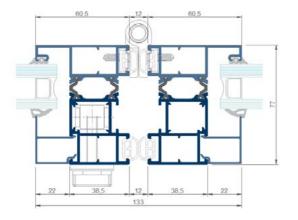




TEST RESULTS



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License number: 1014

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Qualicoat seal for lacquer License number: 405

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



THERMIA BARCELONA EN14351-1:2006+A2:2016



Thermia® PM40 SHUTTER Mediterranean style

Fixed slat shutter

The solution for sun protection and ventilation, protecting the privacy of guests.



Closure with casement shutter and fixed slats.

Blind slat shutter

The solution for achieving a totally opaque and reinforced surface. Allows no light to enter.



Closure with blind slats, ideal for shutting out light and visibility.

Glass sliding and folding

Commonly used with exterior and interior folding closures, for dividing interior space.



Shutter folding closure with 5 glass panels.

Movable slats shutter

Slat position can be adjusted, allowing the user to position them as desired at any time.



Shutter folding closure with movable slats.

The shutter blind takes its inspiration from the ancient wooden blinds that adorn many buildings in cities and towns throughout the Mediterranean area.

More than a simple decorative facade, it offers ideal protection against the sun's rays as well as home burglaries. Its extruded aluminum construction is perfect for achieving a stronger, longer-lasting and maintenance-free product.

The huge variety of solutions offered in this series allows you to choose the best option for any construction style.

Shutters, sun protection & security



Thermia SHUTTER®

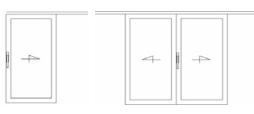
OPENING SYSTEMS



Sliding shutter system

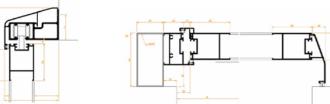
+ The sliding shutter blind is the perfect solution for sun protection on the facade of a building.

- + Its lateral movement allows for the fabrication of 1, 2, or more panels, with
- multiple tracks.
- + The wall guide is manufactured with a decorative cover for a more elegant look.
- + The ability to slide all the panels laterally means that the window opening can be left completely unobstructed.



Single Panel

Double Panel



Wall guide with decorative cover

Cross-section 1 panel

Overlapping lower guide

Recessed lower guide

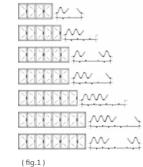
Design

Comfort

Silence

2 Folding shutter system

- + The ideal closure for restaurants, bars, pool areas, meeting rooms, etc.
- + Either glass or slats can be mounted in its frames.



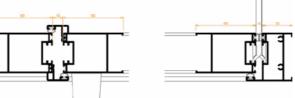


3 **Casement** shutter system

- + The leaf rotates to an open position on a vertical axis, using hinges.
- + Allows for up to 4 leaves to be installed, with different opening solutions.
- + Combinations (Fig. 2)
- + The panels can open to the outside or the inside, as needed.



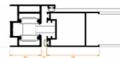




Cross-section double leaf



+ Multiple combinations (Fig. 1)





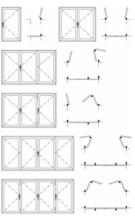


Recessed lower quide

Overlapping lower guide

Upper ceiling guide





(fig. 2)



The aluminum **shutter blind** series is ideal for:

- Decoration of the facade.
- Greater protection against robbery.
- Solar protection in buildings and residences.

Thermia® MQ22 Mosquito Screen Protection from insects



A versatile system offering effective protection from mosquitos.

- + Casement, sliding, or fixed structure opening systems.
- + Manufactured with 1, 2, 3 or more panels.
- + Manufacture of large-format balcony doors.

Maximum robustness

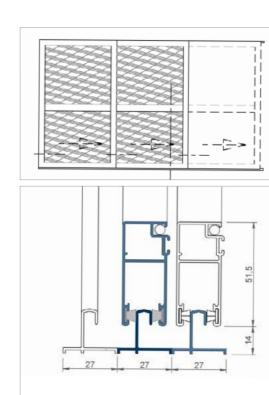
A system of tubular profiles joined by machined corner joints on the profile and robust, high-quality components to ensure a long useful life.

100% Adaptable

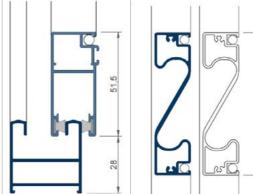
This system is fully adaptable to all Thermia series and to any other window on the market.



Design Comfort Silence









Impeccable aesthetics

quickly.



A unique system in the market for large-format balcony doors.

Easy to manufacture and install

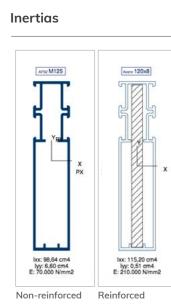
Highly intuitive manufacture and installation. All you need are the same fixtures and accessories used with the Thermia Barcelona® windows series.

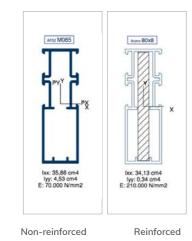
Unlike most mosquito screen systems sold on the market, Thermia MQ22 uses aluminum corner joints on tubular profiles to create frames and panels joined at 45° (like a window), avoiding flimsy plastic components that deteriorate



Thermia® AF52 MULLION Light structural series

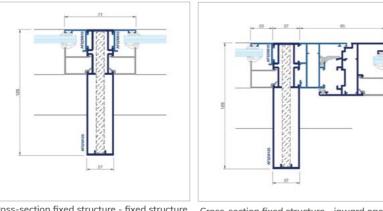
The Thermia® Series AF52M is a light structural system made up of 85 mm and 125 mm mullion, conceived for projects with different reinforcement requirements.







Cross-section





Cross-section fixed structure - sliding opening



number: 1014



Qualicoat seal for lacquer License number: 405

Oualideco seal for the imitation wood License number: ES-0009F

Cross-section fixed structure - outward

opening



THERMIA BARCELONA EN14351-1:2006+A2:2016



- to the uprights.
- + Option of internal steel reinforcement to increase strength (ExY module).
- + Many combinations can be achieved by attaching a screw-on blade or glazing bead in multiple positions.

Thermia® FS45 QUICK Quick, slender and practical walls

The Thermia® FS45 QUICK series is a system for creating glazed walls using aluminum for beautiful visual tempo.

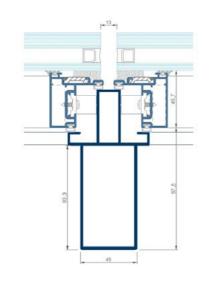
| PRESTACIONES DE LA SERIE | |
|-----------------------------------|---------------|
| Thermal break (TB) | No |
| Mullion | 128/168 mm |
| Transom | 65 mm |
| Leaf | 42 mm |
| General thickness of the profiles | 2,1 mm |
| Maximum leaf weight | 130 Kg / leaf |
| Maximum glazing width | 31 mm |
| Available profiles | Façade |
| | |

| | Window Ucw = 1,9 W/m²k* |
|---------|---|
| THERMAL | *Based on EN 10077-02 2700 x 6200 façade |
| THENWAL | glass Ug= 1.1 ψ = 0.053 (results obtained with the |
| | bonded insulated glass solution) |



Results obtained from reports according to ENSATEC with test number 251.064 and on the basis of the standards UNE-EN 13830:2016, UNE-EN 12153:2000, UNE-EN 12155:2000 and UNE-EN 12179:2001





cation

Certifi

Oualanod seal for anodization

nber: 1014



Qualicoat seal for lacquer License number: 405

Ouglideco seal for the imitation wood License number: ES-0009



THERMIA BARCELONA EN14351-1:2006+A2:2016

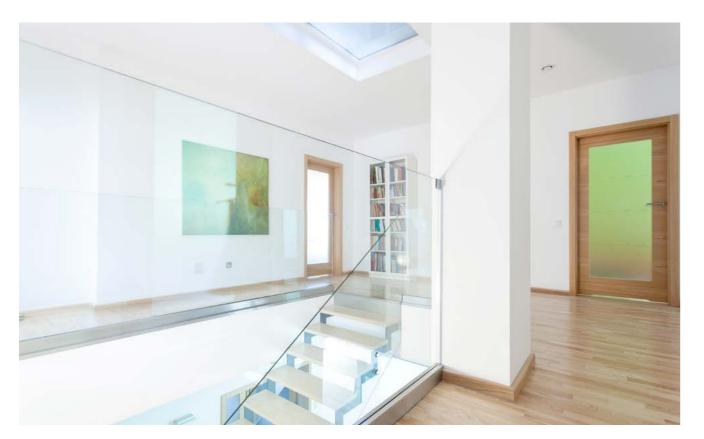


simple clip system

企

Thermia® GR48 GLASS RAIL

Minimalist security



Extrusion alloy - 6060.

- State of supply - T6 - T66.
- Dimensions
- Profile depth 48 mm. - Section view 115 mm.

Construction

- options
- On the floor.
- On the edge of the floor. - Recessed.

Glazing

õ

- 6+6 T (Butyrals) - 8+8 T (Butyrals)
- 10+10 T (Butyrals)



- usage categories*.
- Double anti-lift system for glazing.
- Protective seating for glass, with impact resistance and high loadbearing capacity.
- Mechanical adjustment for leveling on the floor.
- Compatible with alignment strings and connecting angles.
- Integrated water drainage, caps and



- external anodic protection.







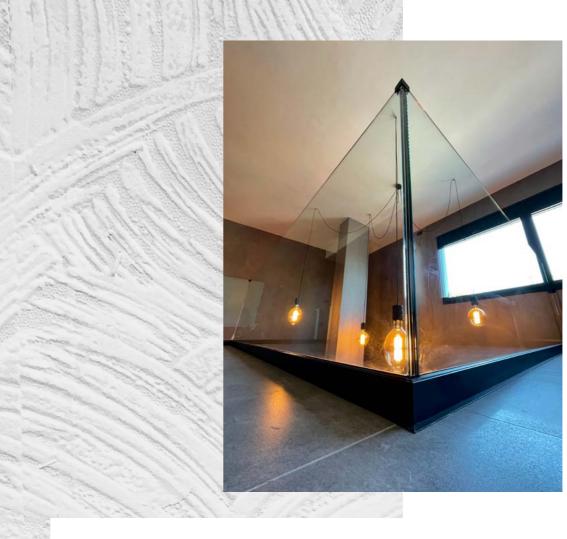


Qualideco seal for the imitation wood License number: ES-0009F



THERMIA BARCELONA EN14351-1:2006+A2:2016

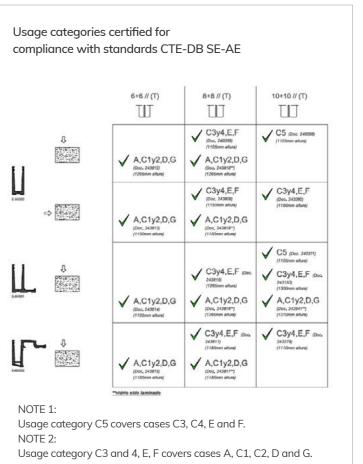
Certification



Tests Usage categories A2 В C1 C2 A1 C5 C3 C4 Е F Security testing: CTE - DB SE-AE section 3.2. Actions on handrails and dividing elements.



Performance

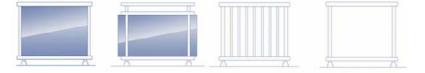


Thermia® RAILING Safety & elegance

The wide variety of combinations of aluminum profiles and accessories make Thermia Barcelona® railing a safe, versatile and simple construction component that can be decorated with the same technologies used with the windows.



INSTALLATION OPTIONS



VELAM louver Sun protection and ventilation

A ventilation and sun protection system for facades, using horizontally fastened slats. The surface can be treated with whatever color fits the architecture as a whole.

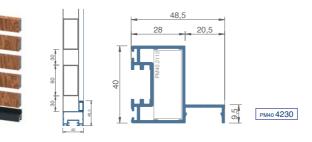


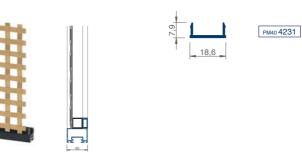


Thermia® PM40 DECOR Shadows as construction elements

- + Decoration for interior and exterior (interior divider).
- + It is a construction element that lends projects character and distinction.
- + Also can be used for sun control and protection.
- + Durable and functional aluminum system.
- + It shares components with the

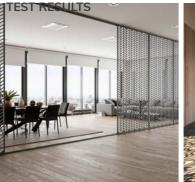
Thermia MALLORQUINA® shutter system. In other words, it is manufactured with the same profiles and fittings.





CROSS-SECTION

Applications



Interior design



Interior design

Exterior design

Qualanod seal

for anodization

ber: 1014



ualicoat seal fo lacquer





THERMIA BARCELONA EN14351-1:2006+A2:2016 Windows for a better life



Aluminum solution for architectural decorations and sun control.





Thermia[®] PM40 DECOR can be used to cover the system's leaves using items such as:

+ Square or rectangular tubes of any material (aluminum, wood, stainless steel, PVC, etc.) No greater than 30 cm in width.

- + Expanded metal sheet.
- + Perforated, braided, or free-design sheets.
- + Frameworks.



Manufacture Thermia[®] windows anywhere in the world.

Our Thermia systems distribution division serves window manufacturers, offering the following advantages to aluminum window companies:

Comprehensive service to manufacturers

- + Optimization of inventory of Thermia[®] **profiles and accessories.**
- + Specific tools for optimal manufacture of Thermia® window.
- + Specialized carpentry software, customized for your use.
- + Start-up and after-sale service.
- + Comprehensive logistics service and tracking of goods.
- + Ongoing training in the manufacture of Thermia[®] system.
- + Corporate communication and marketing support.
- + Ongoing technical and business consulting.











The Thermia[®] systems distribution network

- + Marketing to **domestic manufacturers.**
- + Marketing to international manufacturers.

Install Thermia® windows



Comprehensive service to installers:

- + Ongoing technical and business consulting.
- + Fast delivery service.
- + Comprehensive logistics service and tracking of goods.
- + Corporate communication and marketing support.

Our manufactured window division allows window installers to purchase Thermia[®] doors and windows with whatever technical and aesthetic features they need.





Thermia window manufacturers benefit from optimized inventory management, personalized technical support and business consulting for all Thermia[®] systems.

"We offer a comprehensive, fully customized service" Our personnel, specially trained in manufacturing Thermia[®] windows, will create whatever closures are requested **under CE** regulations.

In order to guarantee quality, Thermia[®] closures undergo thorough quality control for:

- Functionality of components.
- The airtightness of the system.
- Surface finishes.

Wholesale Thermia® windows manufacturers:

Serving all companies in the construction, architecture, and remodeling industries:

Factory in Barcelona, Spain Factory in Peru Factory in Chile Factory in Costa Rica Factory in El Salvador Factory in Colombia Factory in Uruguay Factory in Dominican Republic Factory in Mexico



Windows that measure up to the latest environmental trends: energy efficiency

Less eneray us more comfort.

The maximum thermal insulation of a building is directly related to the resistance capacity of the elements that are in contact with the outside environment: windows doors, exterior walls and roofs. To achieve optimal energy

efficiency, suitable insulating materials must be installed on the building envelope.

As part of the fight against energy waste and worldwide CO2 emissions, European authorities connected to the



construction industry have established

strict and mandatory directives on energy efficiency, which must be applied to

buildings and which are found in the Basic

Energy Saving Document (DB HE) as an extension to the current Technical Building

This new legal framework affects both

new constructions and existing buildings

in the process of being sold or leased.

Code (CTE).



A well-insulated house can save up to 50% on energy consumption.





The windows are the most vulnerable part of a residence.



At Thermia Barcelona[®] thermal insulation is one of the highest priority goals in the design and manufacture of doors and windows. We know that controlling the temperature and humidity inside homes is key to providing the comfort and wellbeing that we all want.



How noise pollution affects our health and comfort and how insulated windows can help us

Noise pollution is an affliction that affects everyone who lives in major cities. The noise of cars and motorbikes, helicopters and planes remain excessive and annoying sounds that we continue to hear and which affect our health on a daily basis.

In fact, traffic is the main source of noise pollution. A constant sound that hardly ever stops seems to envelop everywhere we go (work, walking around town, the home, etc.)

If you live near to a road with traffic, sleeping or simply the peace of mind of being at home can be a difficult task and often an irritating one.

Being able to rest at home should be routine, but that is not the case for many millions of people.

And then there is sleep. Getting a good night's sleep can become a nightmare if noise penetrates our entire room. And getting the recommended sleeping hours is vital for our well-being and health.

The WHO (World Health Organization) establishes the maximum levels at 50 dB-60 dB (decibels) and warns that higher exposure can be seriously harmful.

As an example, the noise of a vacuum cleaner is already at 65 dB, a normal conversation is 50 dB and rustling of leaves is 20 dB. It is important to try to lower the decibels in our homes to guarantee a more peaceful house, places to rest and to alleviate tension accumulated during the day. Ultimately, our home is our temple. Shouldn't it be a place of rest and happiness?

Noise-related illnesses include hearing loss, learning problems, strokes, respiratory diseases, stress and irritability or







neurosis, hysteria and psychosis.

Regardless of the government campaigns to draw up action plans to control and prevent sound contamination in streets and common areas, the fact is that people currently continue to endure pollution damage on a daily basis.

It is not possible to halt the consequences of these pol-

The WHO (World Health Organization) establishes the **maximum levels at 50 dB-60 dB (decibels)** and warns that higher exposure can be seriously harmful to our health.



Psychological health specialists state that peacefully benefiting from sleep time translates to greater effectiveness on a work and emotional level.

lution indices in public areas in the short term, but we can in our homes.

If we can insulate our home against the constant outside noise, we will be able to improve the quality of our lives, increase our comfort and, above all, ensure that our health is protected.

One of the best options for living with peace and quiet at home is insulated (thermo-acoustic) windows that protect on the one hand against outside noise, and on the other against the cold and heat depending on the time of year.

The importance of glass in acoustic attenuation

Studying the phonic performance of a window, we can find the factors that determine the effectiveness of acoustic attenuation:

Windows for a better life

Different thicknesses of chamber glass attenuate more than chamber glass with the same thickness.

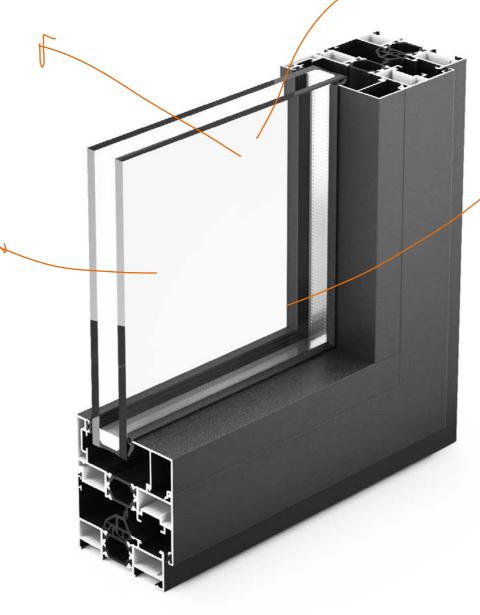
alter the acoustic properties. However, acoustic laminated glass attenuates more than the same thickness of float glass.

Tempered or laminated glass (not acoustic) does not

The closures must guarantee the maximum possible air-tightness Any minor crack in the closure represents an air inlet and, therefore, noise.

| Composition | | Rw | С | Ctr |
|---|--------------|----|----|-----|
| | 3 | 28 | -1 | -4 |
| M Ph. 2 . | | | | -2 |
| Monolithic | | | | -2 |
| | | | | -2 |
| | 33.1 | 31 | 0 | -1 |
| Laminated | 44.1 | 34 | 0 | -1 |
| | 66.1 | 37 | 0 | -2 |
| | | | | -2 |
| Acoustic laminated | 44SC | 31 | | -3 |
| | 66SC | | | -2 |
| | 4/12/6 | 33 | -1 | -3 |
| Monolithic | 5/12/5 | 31 | -1 | -4 |
| | 6/12/8 | 35 | -1 | -3 |
| | 5/12/33 | 36 | | -5 |
| Laminated monolithic | 5/12/44 | | | -4 |
| | 10/12/66 | | | -3 |
| | 6/12/44SC | 39 | -1 | -5 |
| Acoustic laminated monolithic | 6/12/66SC | 41 | -1 | -3 |
| Acoustic monolithic acoustic laminated | 44SC/12/66SC | | | -5 |

Glass composition and its acoustic attenuation



Design

Confort **Silence**

The thicker the glass, the greater the attenuation. It is advisable to fit thicker glass, keeping in mind its weight (2.5 kg per m2 and mm of thickness).



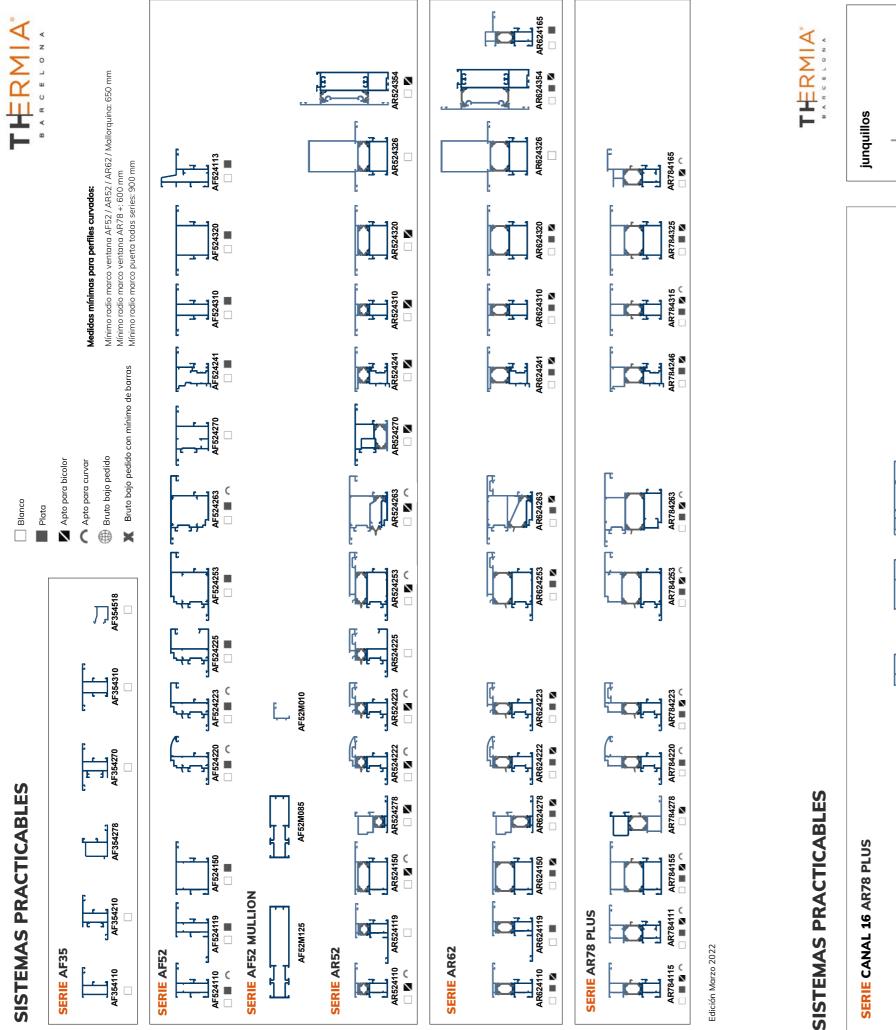


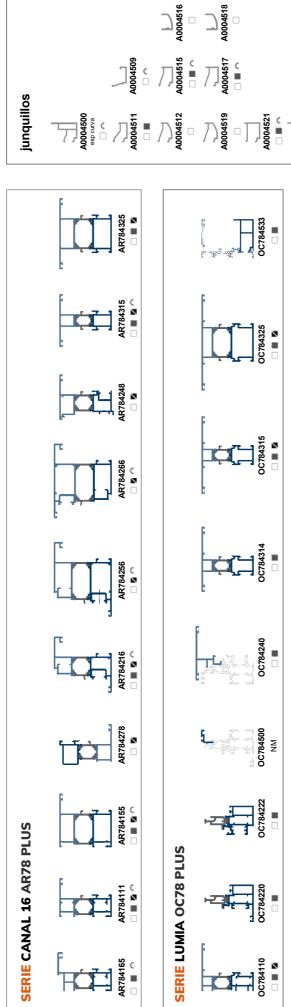
The **solution** at home: **installing airtight windows** that insulate against the outdoors.

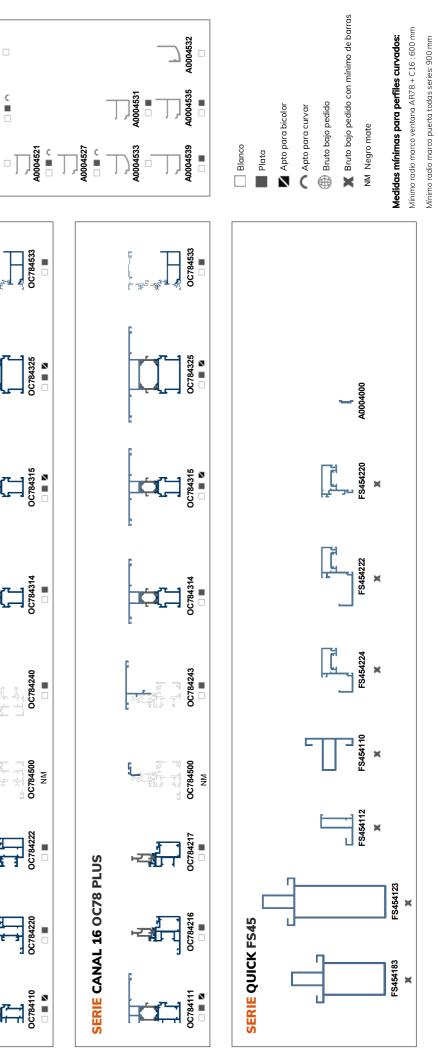
Thermia Barcelona® thermo-acoustic windows and screens offer high acoustic and thermal insulation in homes. They feature high airtightness, ideal for combating noise issues, dust and changes in temperature.



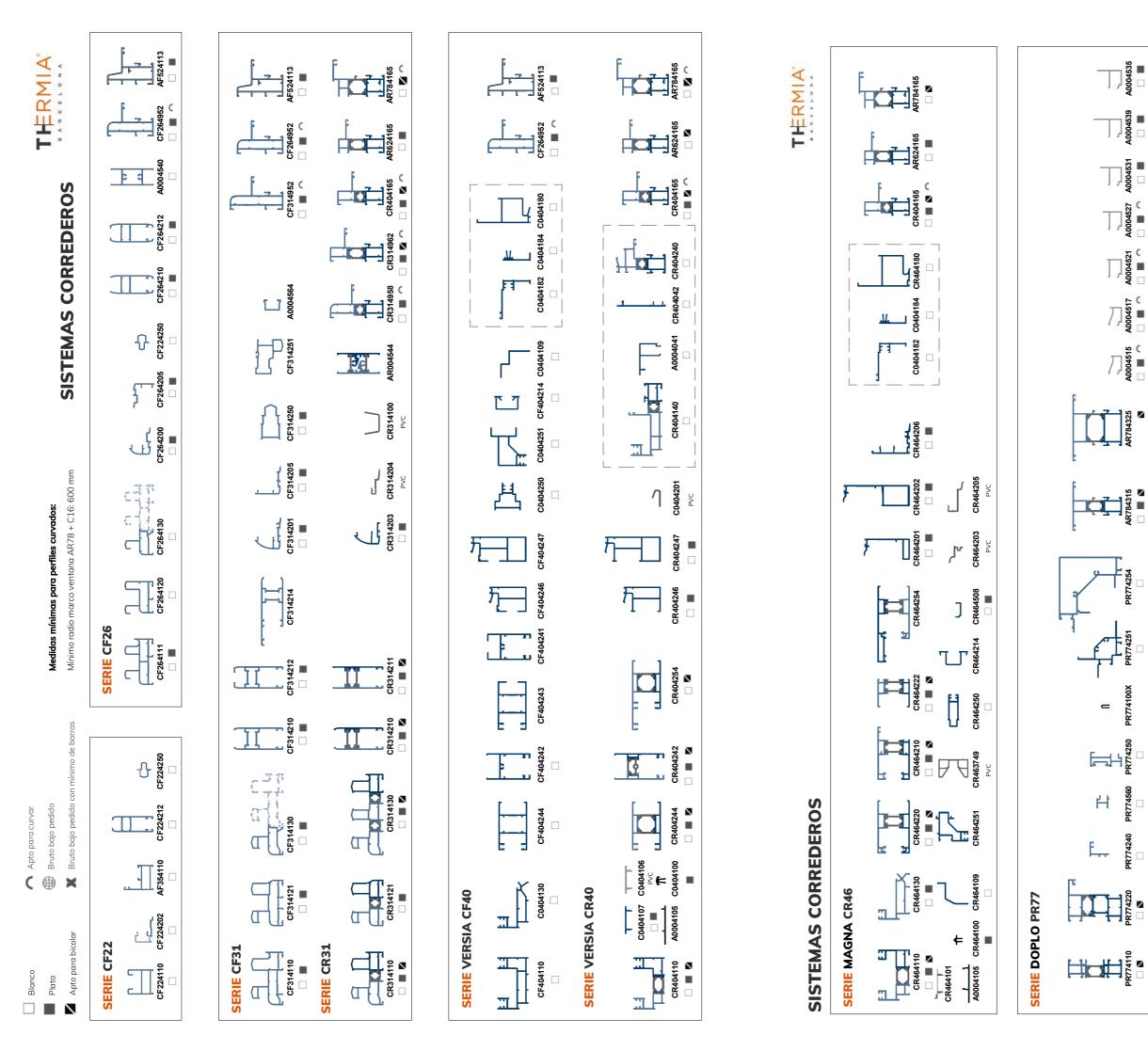
- 60 dB Restaurant. Store.
- 50 dB Quiet street.
- 40 dB Living room.
- 30 dB Bedroom. Quiet refrigerator.
- 20 dB Quiet rustling of tree leaves.
- 10 dB Quiet breathing.

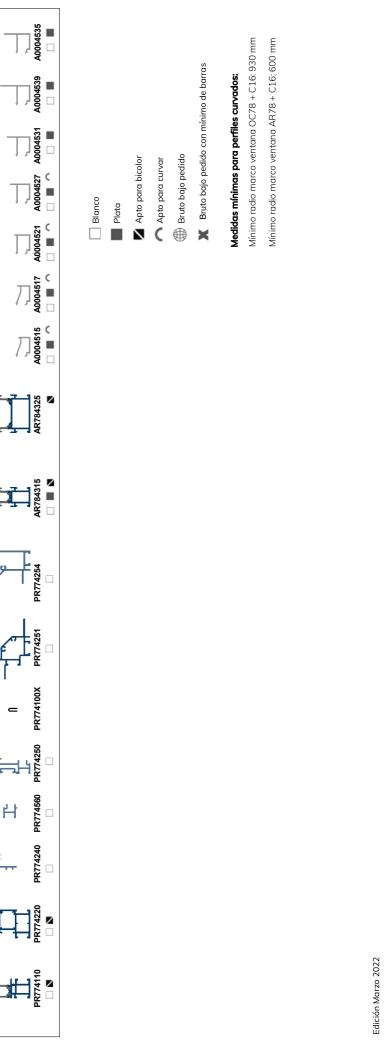






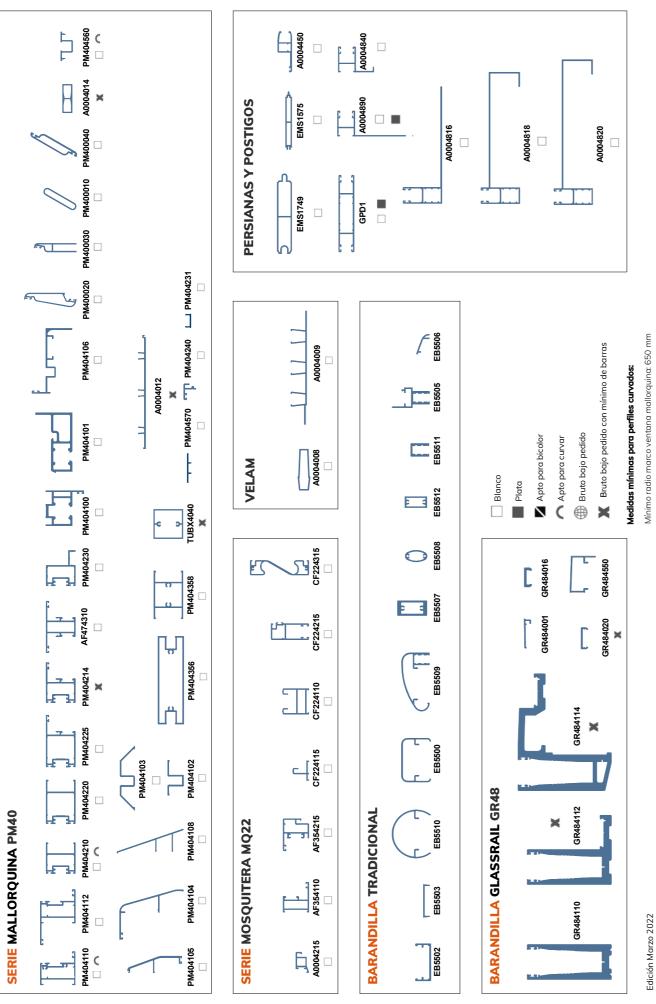
édición Marzo 2022





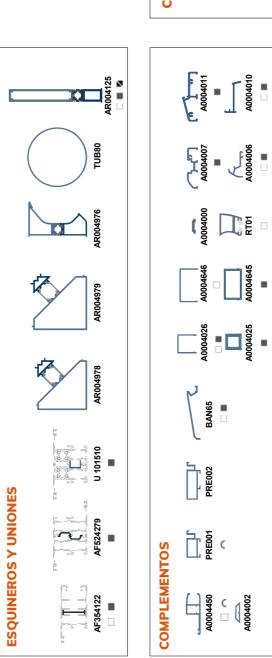


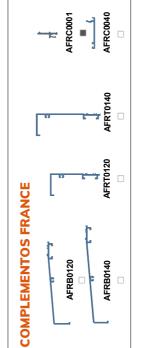




COMPLEMENTOS

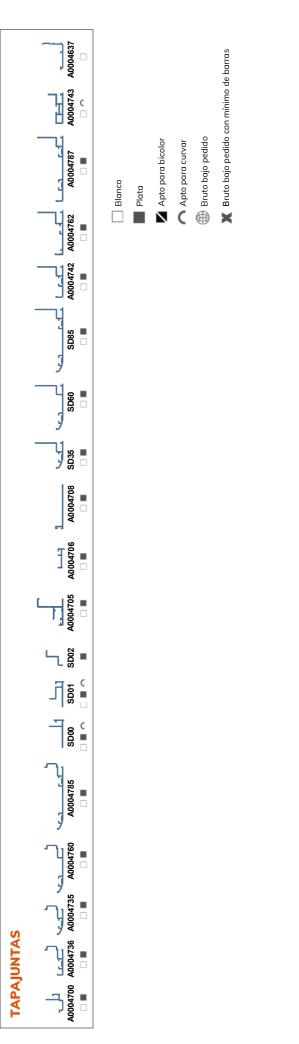
THERMIA'





RT01

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Edición Marzo 2022

Technical charts for Thermia[®] systems



Thermia[®] sliding series

| Series | RPT Series | mm Frame / leaf POLYAMIDE | Uf | Uw WINDOW* up to | mm MAIN FRAME | mm MAIN LEAF | mm PROFILE THICKNESS | mm MAXIMUM GLASS |
|---------------------------|-------------------|---------------------------------|-------|------------------------|---------------------|--------------------|----------------------------|------------------------|
| Thermia [®] ER52 | Yes | 24/14 | 4.385 | 1.84* | 125 | 52 | 1.8 | 30 |
| Thermia® CR46 MAGNA | Yes | 24/25 | 3.162 | 1.65** | 65 | 46 | 1.6/1.8 | 34 |
| Thermia® CR40 VERSIA | Yes | 24 | 3.3 | 1.60* | 65 | 40 | 1.4/1.6 | 28 |
| Thermia® CF40 VERSIA | No | No | - | - | 65 | 40 | 1.4/1.6 | 28 |
| Thermia [®] CR31 | Yes | 14/25 | 4.1 | 1.80* | 75 | 31 | 1.5 | 24 |
| Thermia [®] CF31 | No | No | - | - | 75 | 31 | 1.5 | 11/21 |
| Thermia [®] CF26 | No | No | - | - | 65 | 26 | 1.3 | 11/17 |
| Thermia [®] CF22 | No | No | - | - | 35 | 22 | 1.2 | 8/15 |

*Uw: DB HE 1.6 x 2.1 balcony door glass Ug = 1.1 W/m2K Thermal transmittance coefficient of the profiles (Uf= chart value), EN, 10077-2 **UW: DB HE 2.8 x 2.25 balcony door glass Ug = 1.0 W/m2K Thermal transmittance coefficient of the profiles (Uf= chart value), EN, 10077-2

| SERIES | MAXIMUM GLASS WEIGHT (kg) | 3 TRACK OPTION | 4 OR MORE TRAC- KS | THICKNESS PROFILES | COLORS IN STOCK |
|-------------------------------------|---------------------------------|----------------|-----------------------|-----------------------|----------------------|
| Thermia [®] ER52 | 350 | Yes | No | Window / Balcony Door | Raw / Silver / White |
| Thermia [®] CR46 MAGNA | 300 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia® CR40 VERSIA | 160/200 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia [®] CF40 VERSIA | 160/200 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia [®] CR31 | 160 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia [®] CF31 | 160 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia [®] CF26 | 120 | Yes | Yes | Window / Balcony Door | Raw / Silver / White |
| Thermia® CF22 | 80 | No | No | Window | Raw / White |

Technical charts for Thermia[®] systems

Thermia[®] casement series

| SERIES | RPT Series | mm POLYAMIDE Frame / leaf | Uf | Uw WINDOW* up to | mm MAIN FRAME | mm MAIN LEAF | mm PROFILE THICKNESS |
|------------------------------|-------------------|---------------------------------|-------|------------------------|---------------------|--------------------|----------------------------|
| Thermia® AR78+ CE | Yes | 24 | 2.50 | 1.07** | 70 | 78 | 1.5-1.8 |
| Thermia® OC78 LUMIA | YES | 24 | 2.65 | 1.29* | 70 | 78 | 1.5 - 1.8 |
| Thermia [®] AR62 CE | Yes | 24 | 2.58 | 1.46* | 55 | 62 | 1.5-1.8 |
| Thermia® AR5 CE | Yes | 14 | 3.139 | 1.56* | 45 | 52 | 1.5-1.8 |
| Thermia® AF52 CE | No | No | - | - | 45 | 52 | 1.5-1.8 |
| Thermia® AF35 | No | No | - | - | 35 | 35 | 1.2 |

*Uw: DB HE 1.6 x 2.1 balcony door glass Ug = 1.1 W/m2K Thermal transmittance coefficient of the profiles (Uf= chart value), EN, 10077-2 **Glass Ug=0.7 W/m2K

'+ 20 Kg door hinges

| SERIES | MAXIMUM GLASS (mm) | MAXIMUM GLASS WEIGHT WITH CASE- MENT FOLDABLE SYSTEM (kg) | MAXIMUM GLASS WEI- GHT WITH TILT AND TURN SYSTEM (kg) | THICKNESS PROFILES | COLORS IN STOCK |
|------------------------------|-----------------------|--|--|-----------------------|----------------------|
| Thermia® AR78+ CE | 49 | 90 | 160 | Window / Door | Raw/Silver/White |
| Thermia® OC78 LUMIA | 31 | 90 | 160 | Window | Raw/Silver/White |
| Thermia [®] AR62 CE | 37 | 90 | 160 | Window / Door | Raw / Silver / White |
| Thermia® AR52 CE | 27 | 90 | 160 | Window / Door | Raw / Silver |
| Thermia [®] AF52 CE | 27 | 90 | 160 | Window / Door | Raw / Silver / White |
| Thermia® AF35 | 8/21 | 90 | 160 | Window | Raw / Silver |

| SERIES | RPT Series | mm POLYAMIDE Frame / leaf | Uf | Uw WINDOW* up to | mm MAIN FRAME | mm MAIN LEAF | mm PROFILE THICKNESS |
|--------------------|-----------------------|---------------------------------|--|------------------------|------------------------|-----------------------|----------------------------|
| Thermia® AR78+ C16 | Yes | 24 | 2.9 | 1.17*** | 70 | 78 | 1.5-1.8 |
| Thermia® OC78+ C16 | Yes | 24 | 2.68 | 1.47* | 70 | 66 | 1.5 |
| SERIES | MAXIMUM GLASS (mm) | WEIGHT WITH MENT | MAXIMUM GLASS WEIGHT WITH CASE- MENT FOLDABLE SYSTEM (kg) | | SS WEI- H SYSTEM | THICKNESS PROFILES | COLORS IN STOCK |
| Thermia® AR78+ C16 | 49 | 90/130 (d | oor) | 100 | | Window / Door | Raw / Silver / White |
| Thermia® OC78+ C16 | 28 | 90 | | 100 | | Window | Raw / Silver / White |

*Uw: DB HE1 1.6 x 2.1 balcony door glass Ug = 1.1 W/m2K, Thermal transmittance coefficient of the profiles Uf=2.68 W/m2K ***UW: DB HE1 1.6 x 2.2 balcony door glass Ug = 0.7 W/m2K, Thermal transmittance coefficient of the profiles with Politech NA33 Uf=2.94 W/ m2K



Acoustic properties of glazed windows

Simplified calculation according to standard EN-UNE 14351-1:2006 Valid according to the Technical Building Code Catalog of Construction Components

Annotations:

- ${f C}$ Spectral adaptation term of the sound reduction index for incident pink noise, in dB.
- C_{tr} Spectral adaptation term of the sound reduction index for automobile noise, in dB.
- R_A Global sound reduction index, A weighted, in dBA.
- $R_{A,tr} \quad \mbox{Global sound reduction index}, A \mbox{ weighted}, for automobile noise, in dBA.$
- R_w Global sound reduction index, in dB.

| A | ACOUSTIC INSULATION VALUES FOR WINDOWS with a surface area of up to 2.7 m ² | | | | | | | | | | | | | |
|--------------------------------|--|------------------------|-----------|-----------------------------|-------------------------|----------------------------|------------------------|-----------|-------------------------|-------------------------|----------------------------|--|--|--|
| Compo | Composition | | | THERMIA [®] Series | | | | | | | | | | |
| | | CF31/0 | CF40 / CR | 31 / CR40 | / CR46N | / / ER52 | AF52 | / AR52 | / AR62 / A | AR78+/ 0 | C78+ | | | |
| Туре | Thickness (mm) | R _w (dB) | C (dB) | C _{tr} (dB) | R _A (dBA) | R _{A,tr} (dBA) | R _w (dB) | C (dB) | C _{tr} (dB) | R _A (dBA) | R _{A,tr} (dBA) | | | |
| | 6 | 28 | -1 | -1 | 27 | 27 | 31 | -2 | -3 | 29 | 28 | | | |
| Disis sizes | 8 | 29 | -1 | -2 | 28 | 27 | 32 | -2 | -3 | 30 | 29 | | | |
| Plain glass | 10 | 29 | -1 | -2 | 28 | 27 | 33 | -2 | -3 | 31 | 30 | | | |
| | 12 | 29 | -1 | -1 | 28 | 28 | 34 | 0 | -2 | 34 | 32 | | | |
| | 3+3 | | | | | | | | | | | | | |
| Louis Science of | 4+4 | | | | | | | | | | | | | |
| Laminated glass (0.36 | 6+6 | 29 | -1 | -2 | 28 | 27 | 32 | -1 | -3 | 31 | 29 | | | |
| butyral) | 8+8 | 29 | -1 | -2 | 28 | 27 | 33 | -1 | -3 | 32 | 30 | | | |
| | 10+10 | 29 | -1 | -2 | 28 | 27 | 34 | -1 | -3 | 33 | 31 | | | |
| | 4/(620)/4 | 27 | -1 | -2 | 26 | 25 | 32 | -1 | -5 | 31 | 27 | | | |
| | 4/(620)/6 | 29 | -1 | -2 | 28 | 27 | 34 | -1 | -4 | 33 | 30 | | | |
| Insulated glass units | 4/(620)/8 | 29 | -1 | -2 | 28 | 27 | 34 | -1 | -4 | 33 | 30 | | | |
| (air chamber mea- | 4/(620)/10 | 29 | -1 | -2 | 28 | 27 | 35 | -1 | -4 | 34 | 31 | | | |
| suring 6 mm to 20 mm) | 6/(620)/6 | 28 | -1 | -2 | 27 | 26 | 33 | -1 | -4 | 32 | 29 | | | |
| | 6/(620)/8 | 29 | -1 | -2 | 28 | 27 | 35 | -1 | -5 | 34 | 30 | | | |
| | 6/(620)/10 | 29 | -1 | -1 | 28 | 28 | 35 | -1 | -3 | 34 | 32 | | | |
| Insulated | 6/(620)/6+6 | 29 | -1 | -2 | 28 | 27 | 34 | -1 | -4 | 33 | 30 | | | |
| glass with laminated panels | 6/(620)/10+10 | - | - | - | - | - | 36 | -1 | -4 | 35 | 32 | | | |

| | Total surface area of the windows | Correction factor to be applied to ${\rm R}_{\rm A}$ and ${\rm R}_{\rm Atr}$ |
|------------|---|--|
| Correction | $2.7 \text{ m}^2 < A \le 3.6 \text{ m}^2$ | -1 dB |
| by side: | $3.6 \text{ m}^2 < A \le 4.6 \text{ m}^2$ | -2 dB |
| | 4.6 m ² < A | -3 dB |

Design Confort

Silence



International Distribution

| Latin America | Europe | Africa |
|----------------|----------|-----------|
| • Peru | • Spain | · Algeria |
| · Ecuador | • France | · Ghana |
| · Chile | | |
| · Colombia | | |
| · El Salvador | | |
| · Panama | | |
| · Costa Rica | | |
| Dominian Donuh | lie - | |

- Dominican Republic
- Mexico

Asia India



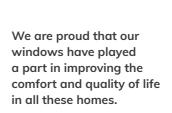


















Windows for a better life

















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