INDRESMAT®
INDUSTRIAL RESINS & MATERIALS

High density **bio**Polyurethane
framed Passive Windows

CERTIFIED COMPONENT
Passive House Institute

KLIMA-PUR® Windows

THE NEXT GENERATION OF WINDOWS & DOORS.

FOR SUSTAINABLE ENERGY-EFFICIENT BUILDINGS

CE

SOLAR IMPULSE
APRIL 2021
EFFICIENT SOLUTION

01 BENEFITS OF KLIMA-PUR®

KLIMA-PUR® is a new range of ultra-energy-efficient windows certified for PassivHaus homes and inspired by traditional timber windows. They incorporate high-density bioPolyurethane resin as the sole material in the frame construction.

The profiles are made of solid foamed structure, offering significantly better performance than PVC and aluminum. Our windows combine the benefits of timber windows without their maintenance requirements.

Optimal energy-saving

Its superior performance avoids the thermal bridges, thus enabling substantial cost reductions in your energy bills.

up to **40-60%** saving

Increased lifespan

PUR is a thermoset material requiring low maintenance due to its excellent thermal and chemical resistance, as well as high dimensional stability and wear resistance.

up to **35-40** years

Sustainable-by-design

KLIMA-PUR® is made from an easy-to-separate material that offers an alternative to fossil-based products. Its biobased version (bioPUR) includes a high content of renewable raw materials, leading to low C-Footprint windows & doors.

near to **165** KgCO2/m2

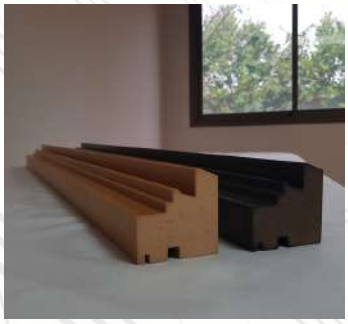
02 WHAT IS BIOPOLYURETHANE?

BioPolyurethane (**BioPUR**) is a polyurethane that contains a high share of bio-based raw materials, reducing environmental impact by 20–25% and dependence on fossil resources by 60%.

By using raw materials derived from **vegetable oils** and thanks to its advanced formulation, KLIMA-PUR combines sustainability with high performance, offering excellent thermal and acoustic insulation, outstanding durability, and a circular design that enables easy repair, reuse, and recycling.

Natural oil based raw materials

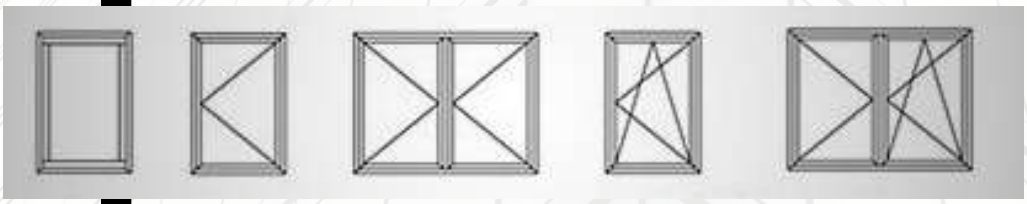
bioPUR foam

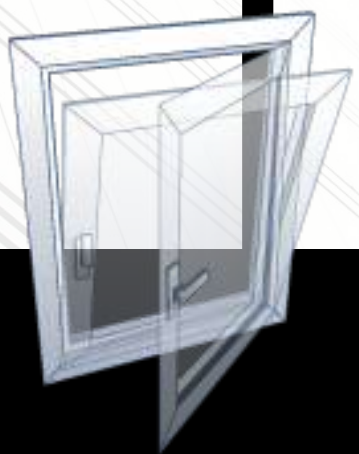


BioPUR profiles

03 SYSTEM DESCRIPTION

KLIMA-PUR® are windows & doors with superior performance in terms of thermal and acoustic comfort, being optimal for cold climates due to its broad range of working temperatures (-20ºC to 70ºC) and for aggressive environments such as humid and sea-coast areas due to its chemical resilience. KLIMA-PUR® windows & doors are specially designed for new buildings, retrofitting, and energy renovation activities within the residential and commercial segments.





KLIMA-PUR® integrates top-quality hardware system allowing turn, tilt & turn, fixed and curvy windows, thus adapting to all architectural designs while making possible any combination and customization. Ask us for your special design!

Maximum size: 3000 mm x 3000 mm

KEY FEATURES 04

KLIMA-PUR® offers the best performance in the window & door market.

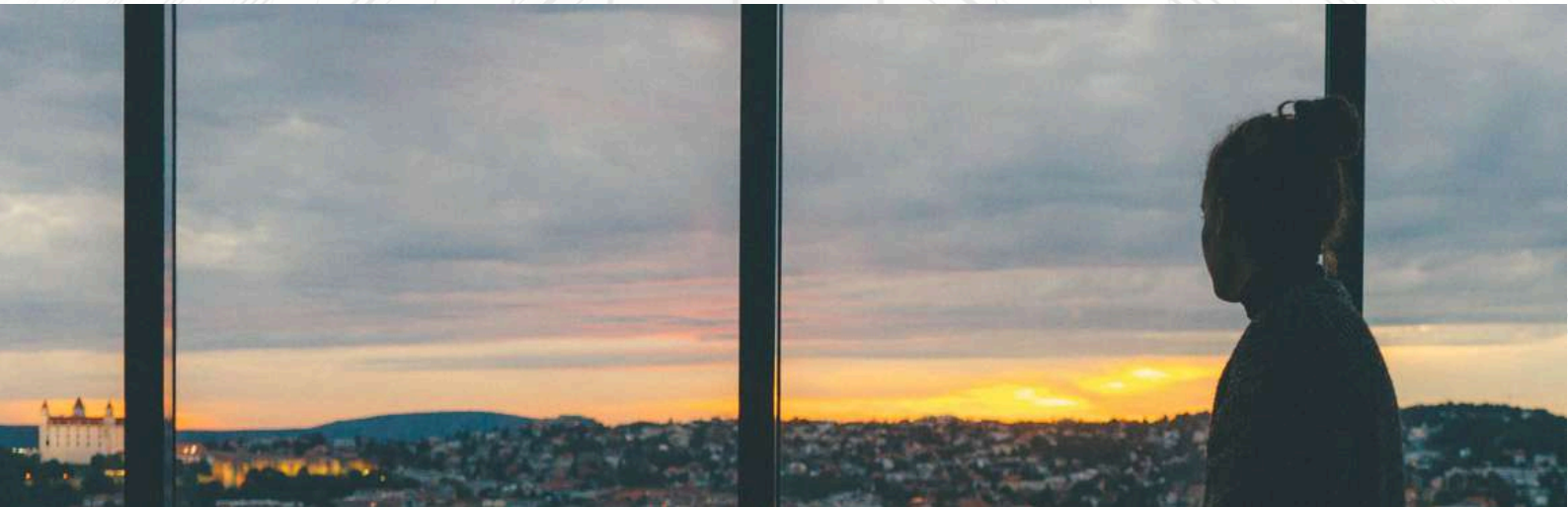
The excellent thermal insulation of PUR makes it perfect for Passive Buildings while the joint system improves air infiltration.

Uf = 0.88 W/m2K

Energy efficiency first!

Minimal maintenance with high durability in a compact and low deformable structure, leading to a high resistance to external agents.

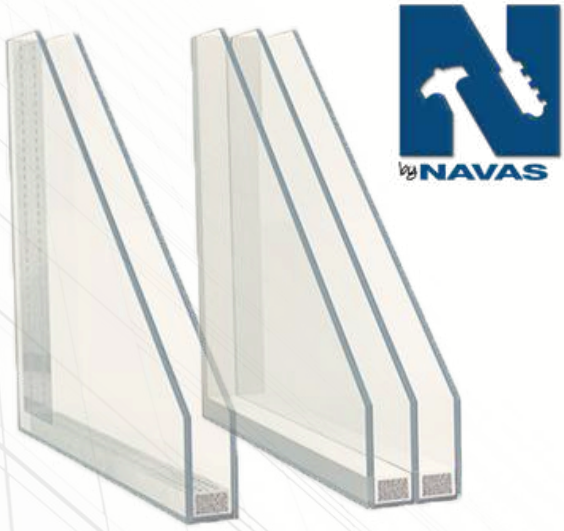
Our joint system provides maximum water tightness against humidity or condensation while providing an enhanced acoustic barrier.



05 HARDWARE & GLAZING

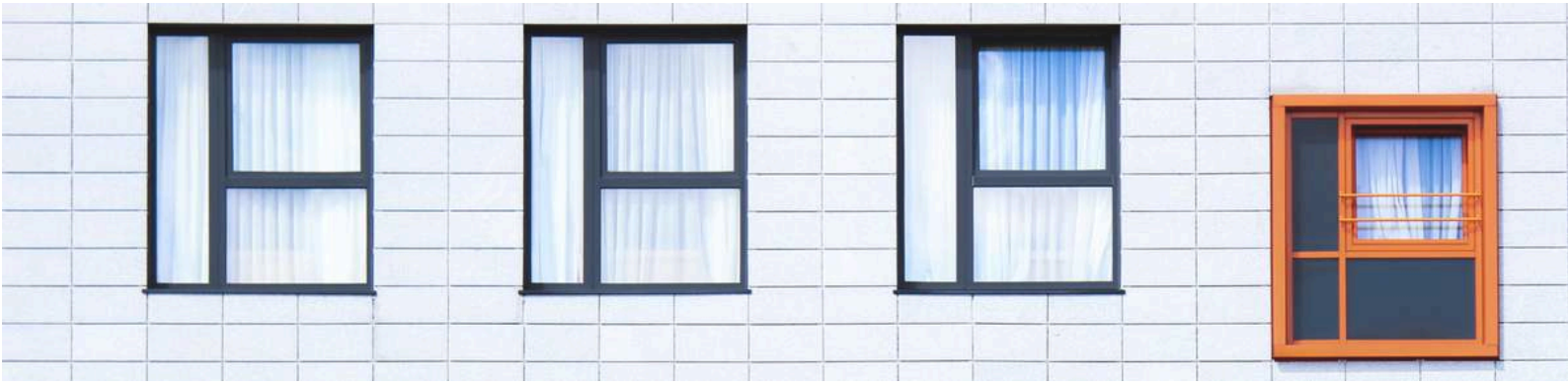
KLIMA-PUR® uses world's best-selling hardware system for windows & doors. Roto® is the selected brand meeting the top quality standards required in our high performance product.

KKLIMA-PUR® relies on **Grupo Navas** to offer glasses with optimal thermal and acoustic performance. **Grupo Navas** has a long history and experience in the window market



KLIMA-PUR® incorporates a glazing band, which increases the tightness of the glass and improves load distribution. This tape is highly resistant to temperature, UV rays and weather.

Maximum glass thickness: 40 mm.



06 OWN STYLE

KLIMA-PUR® combines functionality, design and lightness with a new own style.

Simple design with elegant shapes, allowing the imitation of other materials while integrating both rustic and modern architectural styles.
Available in a wide range of colours and textures (timber, metallic & plastic).

EXAMPLES OF WINDOWS 07

EXAMPLES OF PROJECTS 08

THERMAL PERFORMANCE COMPARISON

09

KLIMA-PUR® offers superior thermal performance compared to other materials, with the thermal transmittance of a 69 mm profile being one of the lowest on the market in the energy-efficient window sector.

KLIMA-PUR® Timber PVC Aluminum

FRAME WIDTH (69 mm)	TRANSMITTANCE (W/m2.K)	INSULATION PERFORMANCE
Aluminum	5,7	Very Low
Aluminum (Thermal Break 4<d<12 mm)	4	Low
Aluminum (Thermal Break d>12 mm)	3,2	Medium
PVC (5 air chambers)	2	Medium
PVC (5 air chambers)	1,8	High
Hard Wood (700 kg/m3)	1,7	High
Soft Wood (500 kg/m3)	1,3	Very High
KLIMA-PUR Windows	0,88	Extremely High

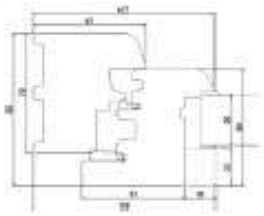
DECLARATION OF PERFORMANCE (1-LEAF WINDOW)

SIMPLIFIED PRODUCT REPORT
EN 14351-1:2006+A2:2016

NÚMERO DE INFORME: *Report Nr.*	258687
PETICIONARIO *Applicant*	INDRESMAT, S.L. Ctra. del Mig, 75. 08907- L'Hospitalet de Llobregat. Barcelona
PRODUCTO CONSTRUCCIÓN *Contruction product*	Inward-opening balcony window with tilt-and-turn mechanism, hinged on the left sash.
NORMA ARMONIZADA *Harmonized standard*	EN 14351-1:2006+A2:2016
REFERENCIA[1] *Reference*	Serie: KLIMA-PUR
MATERIAL[1] *Material*	High Density Polyurethane
ACRISTALAMIENTO[1] *Glazing element*	LamiGlass 44.2sp. ClimaGuard Premium 2/ 18 Argón/ Float 4
FECHA DE EMISIÓN *Date of issue*	18.07.2023

Organismo Notificado nº 1668
Reglamento (UE) Nº 305/2011

Section of frame [1]



EN 14351-1:2006 + A2:2016				
Dimensions 950mm width x 2200 mm height				
Esential features	Apdo	Standard and classification	Classs	Report
Air Tightness	4.14	UNE-EN 1026:2017. UNE-EN 12207:2017	CLASS 4	258496
Water Tightness	4.5	UNE-EN 1027:2017. UNE-EN 12208:2000	CLASS E_{750}	258496
Wind Load Resistance	4.2	UNE-EN 12211:2017. UNE-EN 12210:2017	CLASS C2	258496
Static Torsion Resistance	4.8	UNE-EN 14609:2004. UNE-EN 14609 ERRATUM:2010	CLASE 4 350 N	258498
Acoustic Damping [2]	4.11	Anex B. UNE-EN 14351:2006+A2:2017	43(-3;-7) dB	258501
Thermal Transmittance [3]	4.12	UNE-EN ISO 10077-1:2020	1,1 W/m^2K	258504

[1] Acristalamiento utilizado Rw: 40(-1;-6) dB. [3] Acristalamiento utilizado Ug: 1,1 W/m^2K

ENSATEC, S.L.U. declara que el producto cumple con las características esenciales establecidas en la norma de producto EN 14351-1:2006+A2:2016

Luis García Viguera
Director Técnico Departamento
Department Director

GARCIA VIGUERA LUIS - 16537975D
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ENSATEC, S.L.U. P.I. Lentiscares Avda. Lentiscares nº 4-6 26370 Navarrete (La Rioja) t.941 250 466 www.ensatec.com

DECLARATION OF PERFORMANCE (2-LEAF WINDOW)

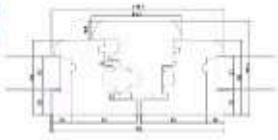
SIMPLIFIED PRODUCT REPORT
EN 14351-1:2006+A2:2016

ensatec

NÚMERO DE INFORME: *Report Nr.*	258505
PETICIONARIO *Applicant*	INDRESMAT, S.L. Ctra. del Mig, 75. 08907- L'Hospitalet de Llobregat. Barcelona
PRODUCTO CONSTRUCCIÓN *Contruction product*	Balcony door and tilt-and-turn window with inward opening, featuring vertical and bottom horizontal pivoting on two right-hand sashes.
NORMA ARMONIZADA *Harmonized standard*	EN 14351-1:2006+A2:2016
REFERENCIA[1] *Reference*	Serie: KLIMA-PUR
MATERIAL[1] *Material*	Polyurethane
ACRISTALAMIENTO[1] *Glazing element*	LamiGlass 44.2sp. ClimaGuard Premium 2/ 18 Argón/ Float 4
FECHA DE EMISIÓN *Date of issue*	18.07.2023

Organismo Notificado nº 1668
Reglamento (UE) Nº 305/2011

Sección y/o fotografía [1]:



EN 14351-1:2006 + A2:2016				
Dimensions 1500 mm width x 2200 mm height				
Essential features	**Apdo**	**Standard and classification**	**Class**	**Report**
Air Tightness	4.14	UNE-EN 1026:2017. UNE-EN 12207:2017	CLASS 4	258497
Water Tightness	4.5	UNE-EN 1027:2017. UNE-EN 12208:2000	CLASS 9A	258497
Wind Load Resistance	4.2	UNE-EN 12211:2017. UNE-EN 12210:2017	CLASS C1 CLASS A2	258497
Static Torsion Resistance	4.8	UNE-EN 14609:2004. UNE-EN 14609 ERRATUM:2010	CLASS 4 350 N	258498
Acoustic Damping[2]	4.11	Anexo B. UNE-EN 14351:2006+A2:2017	42(-3;-7) dB	258501
Thermal transmittance[3]	4.12	UNE-EN ISO 10077-1:2020	1,2 W/m²K	258504
Dimensions 1230mm width x 1480 mm height				
Essential features	**Apdo**	**Standard and classification**	**Class**	**Report**
Air Tightness	4.14	UNE-EN 1026:2017. UNE-EN 12207:2017	CLASE 4	258499
Water Tightness	4.5	UNE-EN 1027:2017. UNE-EN 12208:2000	CLASE E750	258499
Wind Load Resistance	4.2	UNE-EN 12211:2017. UNE-EN 12210:2017	CLASE C3	258499
Acoustic Damping[2]	4.11	UNE-EN ISO 10140-2:2022	43(-3; -7) dB	258500

[1]Acristalamiento utilizado Rw: 40(-1;-6) dB. [3] Acristalamiento utilizado Ug: 1,1 W/m²K

ENSATEC, S.L.U. declara que el producto cumple con las características esenciales establecidas en la norma de producto EN 14351-1:2006+A2:2016

Luis García Viguera
Director Técnico Departamento

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Department Director

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PASSIVHAUS CERTIFIED 12

CERTIFICATE

Certified Passive House Component

Component-ID 2442wi04 valid until 31st December 2025

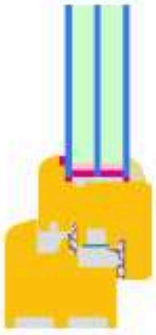
Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

Category: **Window Frame**

Manufacturer: **INDRESMAT SL, L'Hospitalet del Llobregat, Barcelona, Spain**

Product name: **KLIMA-PUR**

This certificate was awarded based on the following criteria for the warm, temperate climate zone



Comfort	$U_W = 1.00$	≤	1.00 W/(m²K)
	$U_{W,installed}$	≤	1.05 W/(m²K)
	with U_g	=	0.90 W/(m²K)
Hygiene	$f_{Rsi=0.25}$	≥	0.65

warm, temperate climate

phB

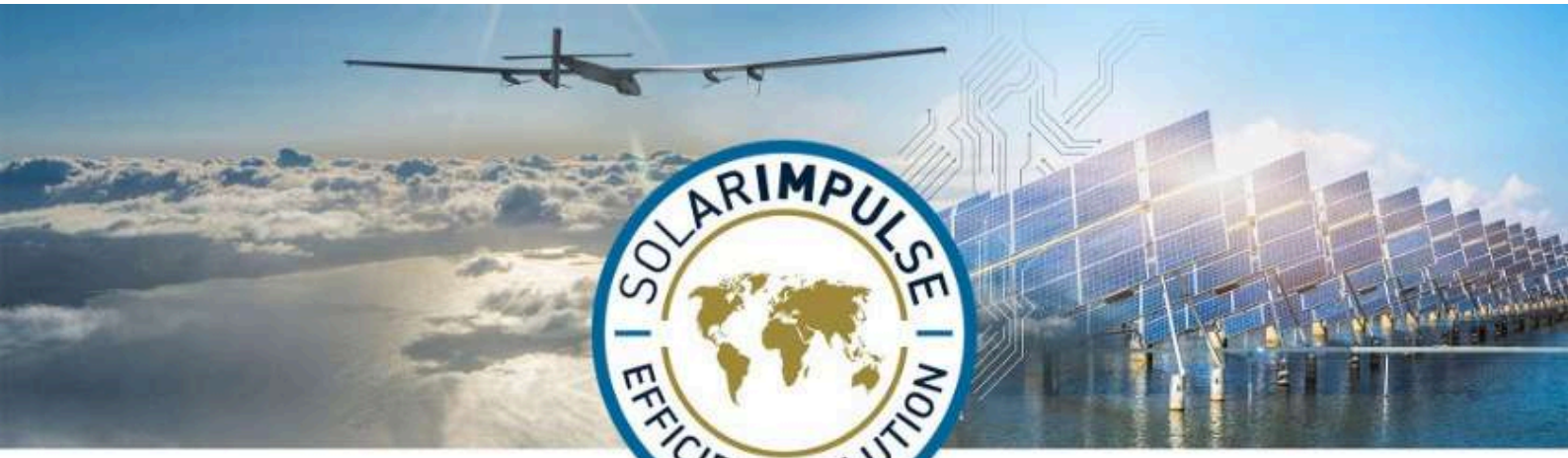
Passive House efficiency class: phE | phD | phC | **phB** | phA

CERTIFIED COMPONENT
Passive House Institute

www.passivehouse.com

SOLAR IMPULSE EFFICIENT LABEL

13



THE SOLAR IMPULSE EFFICIENT SOLUTION LABEL: A NEW APPROACH TO PROTECT THE ENVIRONMENT

KLIMA-PUR® has been awarded with the SOLAR IMPULSE LABEL, which is a certification that applies to products, processes and services combining economic profitability and environmental sustainability.

BUILDING A BETTER WORLD

Going for sustainability: KLIMA-PUR® frames are manufactured with a very low energy-consuming technology (0.13 kWh/kg), thus reducing the CO2 emissions in their manufacturing.

Its single material configuration, high biobased content, easy recycling, and circular design; makes possible to provide a C-Footprint similar to wood.

INDRESMAT is committed to the SDGs.

KLIMA-PUR®
Windows

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