

LAMILUX Glass Skylight FE Passivhaus



OVERVIEW

Product name:

LAMILUX Glass Skylight / Smoke vent FE Passivhaus

Manufacturer name:

LAMILUX Heinrich Strunz Holding GmbH & Co. KG

Manufacture location:

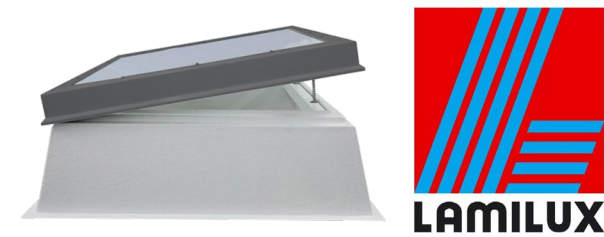
Rehau, Germany

Product type:

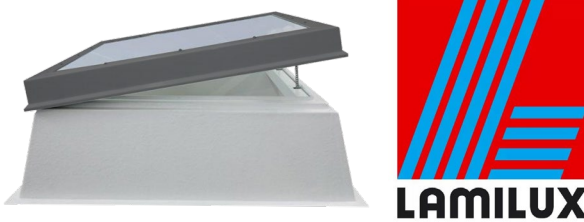
Rooflight / Skylight / Smoke Vent

Application:

Roof



OVERVIEW



Thermal conductivity:

USK=0.85

Technical/performance details:

- USK,installed ≤ 1.10W/(m2K) with Ug = 0.56W/(m2K)
- Hygiene: fRsi=0.25 ≥ 0.70
- phC certified component

Frame values		Frame width <i>b_f</i> mm	<i>U</i> -value frame <i>U_f</i> W/(m ² K)	Ψ -glazing edge Ψ_g W/(m K)	Temp. Factor <i>f_{Rsi=0.25}</i> [-]
Bottom	(OB1) 	98	1.36	0.039	0.74
Top	(OH1) 	98	1.36	0.039	0.74
Lateral	(OJ1) 	98	1.36	0.039	0.74
Spacer: MULTITECH G			Secondary seal: Silicone		



CIRCULAR ECONOMY

The LCA includes the following production relevant inputs:

Energy:

The electricity mix is based on „Strommix Deutschland“ (German electricity mix). Gas is based on „Erdgas Deutschland“ (German natural gas). In addition, solar electricity produced by company LAMILUX Heinrich Strunz GmbH photovoltaic system has been considered as follows:

Production hall	Electricity from photovoltaic system
Production upstand	0,0%
Production real glass dome	4,3 %
Production glass architecture / continuous rooflights	2,4 %

Water:

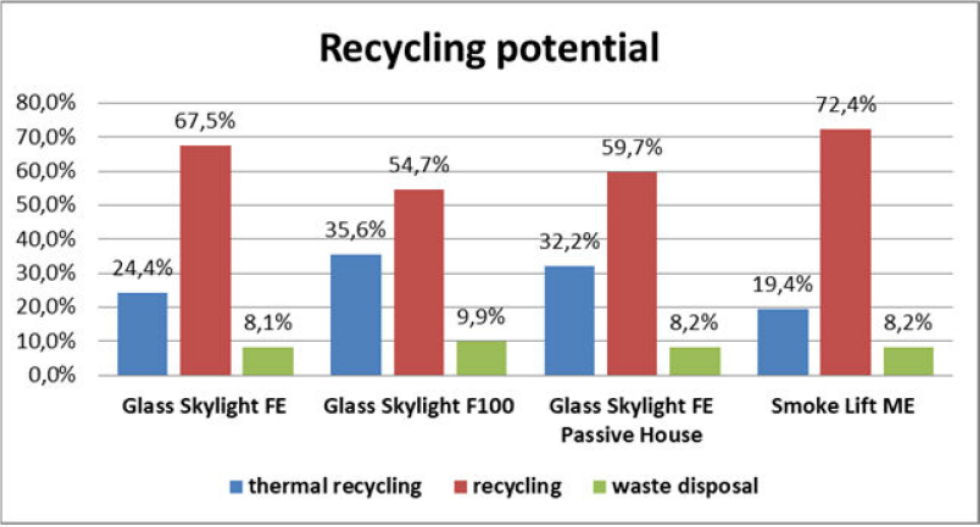
No water is consumed by the individual process steps for the manufacture of the Glass Skylight FE, Glass Skylight F100, Glass Skylight FE Passive House and Smoke Lift ME.



18.7%
of the product
have recycled
content

Recycling potential

Recycling potential can be explained as the share of the product, which can be recycled or reused thermally resp. can be disposed after appropriate treatment. As the considered products have a high share of glass and aluminium, the recycling potentials are high.



Environmental Product Declaration (EPD)

Declaration code: EPD-EG-GB-11.2.3

Glazing elements

Flat roof window FE, flat roof window F100 and flat roof window FE passive house

Basic: DIN EN ISO 14025 EN 15954-4 A2 Company EPD Environmental Product Declaration

Publication date: 24.03.2025 Valid until: 24.03.2030

5 End of life stage

Possible end of life stages

Glass Skylight FE, Glass Skylight F100, Glass Skylight FE Passive House and Smoke Lift ME are shipped to the central collection points. There they are generally shredded and separated. Certain Parts of aluminum, steel, plastic and glass are recycled. Residual fractions are deposited or partly thermally recycled.

The end-of-life stage depends on the site where the products are used and is therefore subject to local regulations. Observe the locally applicable regulatory requirements.

Disposal methods

The average disposal routes were taken into account in the LCA.

HEALTH AND WELLBEING

Improvement of indoor air quality and comfort by:

- Improved Indoor Air Quality through Ventilation
- Maximized Natural Daylighting
- Superior Thermal Comfort & Energy Efficiency
- Noise Reduction for a Quieter Indoor Space



“These features make the Glass Skylight FE Passivhaus an excellent choice for sustainable, energy-efficient buildings that prioritize occupant well-being.”



LAPI
LAPI LABORATORIO PREVENZIONE INCENDI S.p.A.
Sede Primaria: I-59100 PRATO - Via della Quercia, 11
Telefono +39 0574.575.320 - Telefax +39 0574.575.323
Sede Secondaria: I-50041 CALENZANO (FI) - Via Petrarca, 48
e-mail: lapi@laboratoriolapi.it
web site: www.laboratoriolapi.it

ATTESTAZIONE / ASSESSMENT - N. 2313/24

METODO DI PROVA: ISO 16000-9:2024
ISO 16000-6:2021

Test method

DENOMINAZIONE DELLA PROVA: Decreto francese / Arrêté 2011 – 321
Description of the standard Relativo all'etichettamento di prodotti da costruzione o rivestimenti di pareti o pavimenti e di pitture e vernici per l'emissione di composti organici volatili. Relatif à l'étiquetage des produits de construction ou de revêtement de mur ou de sol et des peintures et vernis sur leurs émissions de polluants volatils. Concerning the labelling of building products or wall covering or floor covering and of paints or varnishes for the emission of volatile organic compounds

RICHIEDENTE: LAMILUX Heinrich Strunz GmbH
Sponsor Zehstraße 2 - 95111 Rehau (Germany)

DENOMINAZIONE DEL MATERIALE: GFK-Aufsatzkranz
Denomination of the material (Sample 3)

SPESSORE E PESO DEL MATERIALE: 66 mm - 22165 g/m²
Thickness and weight of the material (valori nominali / nominal values)

DESCRIZIONE DEL MATERIALE: Pannello composito avente uno strato esterno in vetroresina bianca e interno in espanso rigido giallo chiaro.
Description of the material Composite panel having the external layer made of white GRP and the inner part consisting of a rigid light yellow foam.

☐ Questo documento fa riferimento al Rapporto di Prova no. 2313.2150331/24 emesso da questo Laboratorio.
This certificate refers to the Test Report no. 2313.2150331/24, issued by this Laboratory.

Prodotto / Product	Pannello composito / Composite panel
Parametro / Parameter	Emissione di VOC / VOC emission

VALUTAZIONE / JUDGEMENT

Sulla base dei risultati di prova sopra riportati il materiale in oggetto risulta in **CLASSE A+** rispetto alle richieste del Decreto francese / Arrêté 2011 – 321
On the basis of the above results the sample in object result in CLASS A+ with respect to the requests of Decreto francese / Arrêté 2011 – 321.

EMISSIONS DANS L'AIR INTÉRIEUR*

A+
A+ A B C

Prato, 22/01/2025
Valid until: 21/01/2028

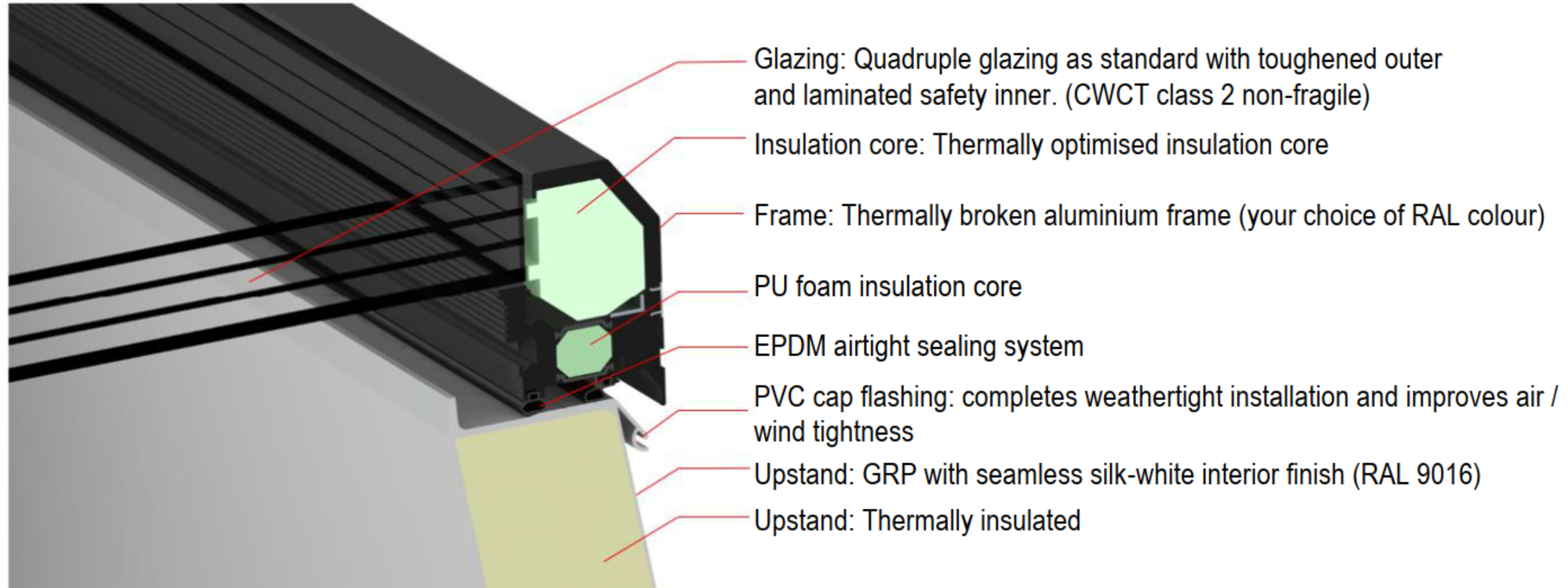
Il Responsabile Certificazione
The Certification Manager
David Boschini

Il Direttore del Laboratorio
The Director of the Laboratory
Marco Farnini

Questo documento deve essere letto congiuntamente ai Rapporti di Prova, per la descrizione del prodotto e per ogni altra notizia di dettaglio.
Questo documento non costituisce approvazione di tipo né certificazione di prodotto né l'insieme dichiarazione di conformità, che spetta esclusivamente al Produttore / Sponsor.
This document has to be read in conjunction with the Test Reports, for the description of the product and for every other detail. This document does not represent type approval or certification of the product neither declaration of compliance, that is exclusively under the responsibility of the Manufacturer or Sponsor.

Il presente documento non può essere riprodotto in forma parziale senza l'autorizzazione scritta di LAPI S.p.A.

NET ZERO



VALUE

Value for clients, building owners, and occupants by:

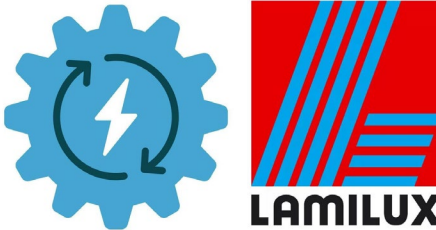
- Energy Savings
- Reduced Maintenance & Longevity
- Enhanced Indoor Comfort & Well-Being
- Increased Property Value
- Compliance with Sustainability Standards



“The LAMILUX Glass Skylight FE Passivhaus is a high-performance, energy-efficient investment that leads to lower operating costs, increased comfort, and enhanced property value —making it a smart choice for any sustainable building project.”



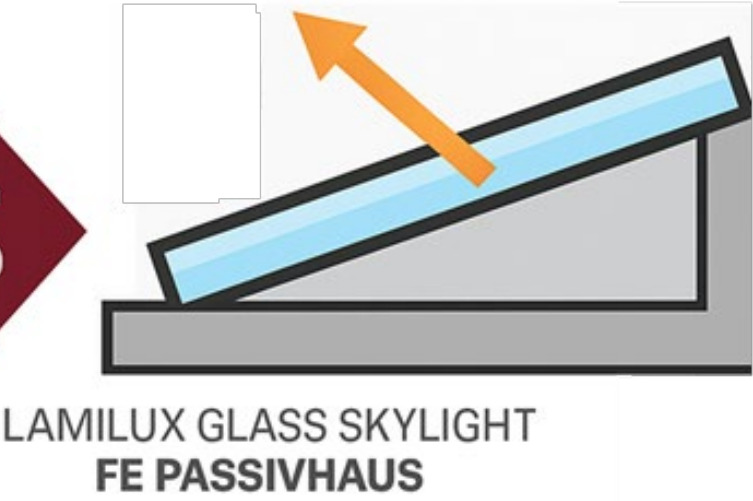
OPERATIONAL ENERGY



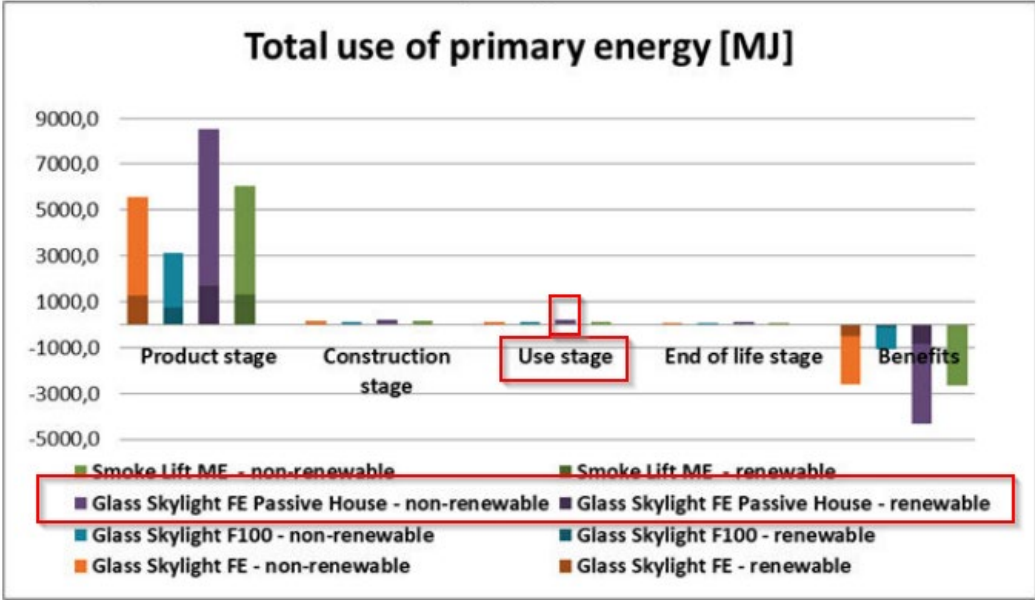
Saves more than 70% heat loss compared to insulation glazing in an old building.



more than **70%**



Practically no energy consumption during use:



CASE STUDY – Woodmill and St Columba's RC High School

Key contribution factors the rooflights bring to the building:

- ➔ Reduce overheating in the summer months whilst allowing the building maximise direct solar gains
- ➔ Natural ventilation helping to create a better indoor air quality
- ➔ Natural daylight contributing to comfort and reduction in artificial heating and lighting
- ➔ All supporting an improved learning and concentration environment.



➔ BAM Construction Ltd / AHR



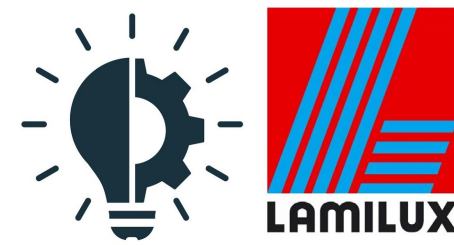
INNOVATION

- Passivhaus certified
- Smoke vent option certified in acc. to EN12101-2 with reliability: RE 1,000 SHEV cycles
- Optionally opening for daily ventilation (230V) with reliability: RE 10,000 natural ventilation cycles
- Product data pre-loaded into PHPP software
- High performance quadruple layer glazing with solar control options
- Fully thermally broken aluminium system – no thermal bridges
- Total installed value $U_{SK, installed} \leq 1.10 \text{ W/m}^2\text{K}$
- Air permeability to Class 4 according to BS EN 1026
- Water tightness to Class 4 according to BS EN 12208
- Wind Load to Class C5, EN 12211

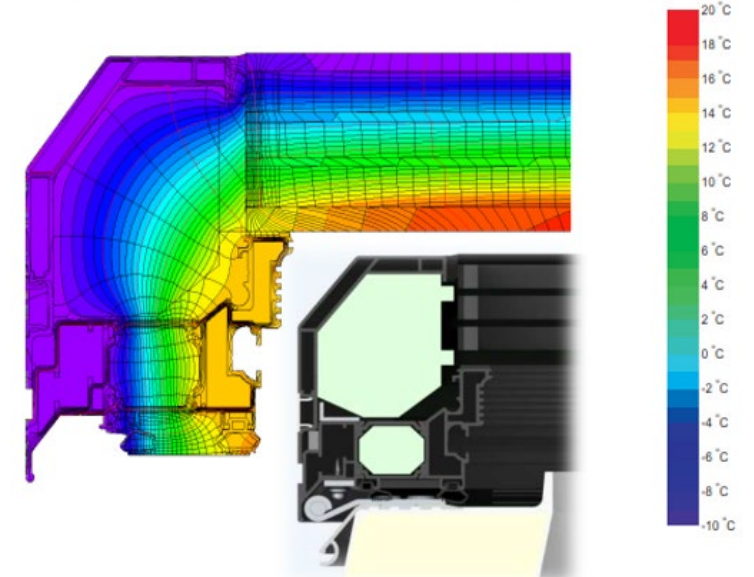
Available as the worlds first Passivhaus certified smoke vent rooflight:

LAMILUX Smoke Lift Glass Skylight FE Passivhaus.

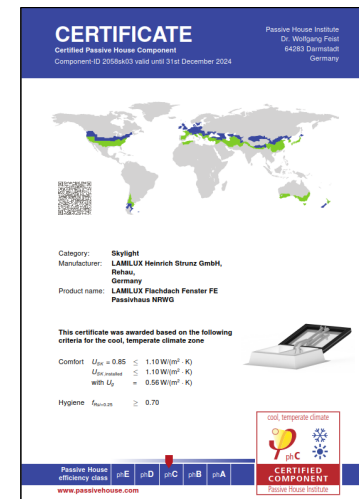
- Fully Passivhaus certified, CE marked and certified in acc. to EN12101-2



Perfectly isothermally balanced system:



Certification



SCALABILITY AND SOCIAL BENEFITS

