Optimer System, S.A.

DECLARATION OF PERFORMANCE

According to Regulation (EU) 2011/3110 (DoP by Regulation EU 305/2011)

Optimer System, S.A.

Version N° 1

Version date: 13/05/2025

1. Product

POLYREFLEX ULTRA

DOP reference number:

PR - ULTRA

Reflective thermal insulation for use in roofs, walls, and technical floors of residential and industrial buildings.

Consisting of two external aluminum layers (16 µm) and two internal layers of polyethylene bubbles (8 mm). Between these polyethylene layers there is an inner aluminum layer (16 µm); the bubbles in contact with the inner aluminum surface are open, creating low-emissivity air gaps. The total thickness is 16 mm.

From the POLYREFLEX product family, ULTRA features two external aluminum sheets (min. 99% purity), two inner layers of large-size polyethylene air bubbles, and two internal reflective aluminum sheets (min. 99% purity) on the inner faces of the air bubbles.

Dimensions: 1.20 m x 20 m x 16 mm thickness

Estimated service life of the system is 25 years in accordance with EAD 040007-00-1201, provided that packaging, transport, storage, installation, maintenance, and repair conditions are maintained.

POLYREFLEX® is a reflective thermal insulation that increases the thermal resistance of air gaps in roofs, facades, ceilings, and floors (without full surface load on POLYREFLEX), and whose insulating capacity is linked to its low surface emissivity and the existence of an air gap in contact with it. The thermal resistance and performance benefits are mainly due to the **POLYREFLEX® + sealed air gap system**. The minimum recommended air gap thickness is 2 cm.

2. General Safety Information

Environmental Product Declaration (EPD): Under certification process in accordance with standard UNE-EN 15804. Once available, it will be accessible on the manufacturer's digital platform and in official EPD registries.

Hazardous substances: The product does not contain hazardous substances according to REACH Regulation (EC) 1907/2006 and Amendment 2023/1230/EU.

It has a corrosion resistance of 96 hours (NSF Test), indicating that it is able to pass the test.

The reaction to fire is Class F when exposed outdoors, but once it's installed for its use and protected by building envelopes, it reaches class B-s1, d0.

Gloves and protective glasses must be used when cutting and handling the material. Although not being toxic nor irritant, it is recommended to have proper ventilation during the installation.

In all cases, users must comply with all national regulations, particularly regarding fire, air resistance, condensation risk, and construction durability. Product suitability is subject to the following installation conditions:

- Installation must be performed via authorized companies by the manufacturer or its representative, and therefore under their technical guidance.
- Installation must comply with the manufacturer's specifications.

Constructive elements incorporating the reflective product must be designed and executed in a way to eliminate condensation risk on the reflective surface. Interstitial condensation calculations should be done according to EN 13788 standard.

3. Manufacturer

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4. Authorized Representative (If applicable)

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5. Technical Assesment Body

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6. Certificates Issued

According to European Commission Decision 1999/91/EC of January 25, 1999, on Conformity Certification Procedures, System 3 has been established for this type of thermal insulation product:

Product	Specific Use	Level/Class	System
POLYREFLEX®	Thermal insulation for buildings with low heat emissivity components	Any	3

7. Technical Reference Documentation

Applied European Assessment Document (EAD) No. 040007-00-1201 for “Thermal insulation for buildings with low heat emissivity components” under Regulation (EU) No. 305/2011 and European Technical Assessment issued: Technical Assessment Body (TAB) 1219, ETA 13 / 0525 dated 10/04/2025.

8. Declared Performance and Sustainability Characteristics

Essential Characteristics	Performance
Dimensions	1.20 m x 20 m x 16 mm
Weight	350 g/m^2
Emissivity	0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Aged emissivity (28 d)	0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Core thermal resistance (m^{2}K/W)	0.43 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in roof (m^{2}K/W)	2.71 (with two 4 cm air cavities) (Calculation supported by UNE-EN ISO 6946:2021 Annex D) (indicated value is from the material within a system) (UNE-EN ISO 6946:2021)
Thermal resistance in ceiling (m^{2}K/W)	1.57 (with one 4 cm air cavity) (Calculation supported by UNE-EN ISO 6946:2021 Annex D) (indicated value is from the material within a system) (UNE-EN ISO 6946:2021)
Thermal resistance in walls (m^{2}K/W)	1.75 (with two 2 cm air cavities) (Calculation supported by UNE-EN ISO 6946:2021 Annex D) (indicated value is from the material within a system) (UNE-EN ISO 6946:2021)
Fire reaction	Class B-s1, d0 (after installation within a system) Euroclass F (EN 13501-1:2002) (Exposed)
Water vapor diffusion resistance	μ = 4500 (4 mm) (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Perpendicular resistance between faces	12 (kPa) (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Perpendicular resistance between faces after 28 days, 70 °C, 95% RH	11 (kPa) (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Tear resistance	54 N (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Aged tear resistance28 d, 70 ºC, 95 % HR	53 N (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Corrosion resistance	96 hours (NSS). Passes (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Dimensional stability (δ%)	w: - 0.3 l: -0.3 t: -20 (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Thickness	16 mm (Aluminum layers + large-size polyethylene air bubbles + reflective aluminum layers)
Format	Roll

- Environmental Product Declaration (EPD): Under certification process according to UNE-EN 15804. Once available, it can be consulted on the manufacturer's digital platform and in recognized official environmental declaration registries.
- Hazardous substances: The product does not contain hazardous substances as per REACH Regulation (EC) 1907/2006 and amendment 2023/1230/EU.

9. Declaration

The product complies with the declared performances and is in conformity with Regulation (EU) 305/2011, adapted by Regulation (EU) 2011/3110. The manufacturer assumes full responsibility for the conformity of the product with the declaration of performance.



Rufino López Muñoz

Position: CEO of Optimer System, S.A.

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