

Technical data Reynobond® and Reynolux®.

Composition aluminium composite panel Reynobond® Architecture			
Thickness composite panel	3 mm	4 mm	6 mm
Thickness coated aluminium sheet	0.5 mm (±0.1 mm)		
Alloy & temper	3005 H46		
Core	PE or FR (fire-retardant)		
Front side finish	DURAGLOSS® 5000 (35 µm) or PVDF 70/30¹ (25 µm) and anti-corrosion treatment		
Reverse side finish	Washcoat and anti-corrosion treatment		

Characteristics aluminium composite panel Reynobond® Architecture			
Width	1,000 mm / 1,250 mm / 1,500 mm / 1,750 mm / 2,000 mm (-0/+3 mm)		
Length	2,000 mm up to 6,050 mm (<4 m: -0/+3 mm ; > 4 m: -0/+6 mm)		
Weight in FR	6.04 kg/m²	7.64 kg/m²	10.84 kg/m²
Weight in PE	4.69 kg/m²	5.61 kg/m²	7.46 kg/m²
Tolerance in squareness	≤ 3mm		
Tolerance in bow	≤ 2 mm / 500 mm on the width and the length		

Performance aluminium composite panel Reynobond® Architecture				
Bond integrity	PE: ASTM D1876 FR: ASTM D903	4.37 N/mm (mini) or 25 lbs/inch		
Tensile strength (R _m)	ASTM D6 38-82a	46.26 Mpa		
Moment of inertia		0.31 cm⁴/m		
Tensile yield		44.16 Mpa		
Stiffness (EI)	CSTB, DIBT	0.125 kN/m²/m	0.242 kN/m²/m	0.242 kN/m²/m
Flexural modulus	ASTM C393 (& ASTM D790)	41,400 Mpa		
Surface coefficient of heat transfer U		5.7 W/m²K	5.6 W/m²K	5.4 W/m²K
Thermal expansion		2.4 mm/m for a temperature variation of 100 °C		
Sound attenuation (R _w)	ASTM E90 ASTM D6 38 – 82a	25 dB	26 dB	27 dB
Temperature resistance		-40 °C / +80 °C		
Maximum allowable deflection		L/30 (allows higher wind pressure or bigger sized elements)		

Performance and durability pre-painted aluminium sheet Reynolux® Building		
Specular gloss	EN 13523-2 ASTM D 523	DURAGLOSS® 5000: from 3% to 80% PVDF 70/30: from 25% to 30% 2-coat polyester: from 25% to 80%
Durability class	NF EN 1396	Class 4: severe industrial – extreme conditions / very severe coastal marine (less than 3,000 m from the sea) / high UV plus severe conditions
Pencil hardness	EN 13523 – 4	HB – F
Resistance to cracking on rapid deformation	EN 13523 – 5	No cracking, no loss of adhesion
Adhesion after indentation	EN 13523 – 6	100% of adhesion
Resistance to cracking on bending	EN 13523 – 7	Very good flexibility: 0.5 T
Acetic salt spray fog resistance	EN 13523 – 8	1,000 h
Water immersion resistance	EN 13523 – 9 AAMA 620	3,000 h
Humidity resistance	ASTM D 224 AAMA 620	3,000 h
Mortar test	AAMA 620	No effect
Acid resistance	AAMA 620 ASTM D 1308	Nitric acid: ΔE < 5 units except some blue and metallic colours Hydrochloric acid: no effect
Detergent resistance	AAMA 620	No effect
Colour fastness on natural weathering	5 years 45° South Florida	Colour variation: 5 to 10 units (ΔE) depending on colour
Resistance to chalking on natural weathering	5 years 45° South Florida	Rating ≥ 8

Fire certificates aluminium composite panel Reynobond® Architecture²		
Europe	EN 13501	FR: B-s1-d0
France	NF P 92-501	PE & FR: M1 combustible; non-inflammable
Germany	DIN 4102	PE: B2 – FR: B1

Fire certificates pre-painted aluminium sheet Reynolux® Building²		
Europe	EN 13501	A1
France	NF P 92-501	M0 incombustible

Reynolux® Building:

For Reynolux® Building, the project and your expectations in terms of design will determine the metal to use: alloy from 3000 to 5000 and thickness from 0.7 mm to 2 mm. See "Performance of prelacquered aluminium sheet" part in the Reynolux® Building technical data.

Fire resistance:

Reynolux® Building pre-painted aluminium sheet allows you to meet the strictest of fire codes: the product does not burn.

Technical service:

Our service is at your disposal to help with static wind resistance calculations, panel cutting optimisation and advice in the details of installation on specific parts of the building.

CAD files and 3D objects:

You can find all the CAD system files for riveted and screwed installation as 3D objects in electronic form on our website at www.reynobond.eu.

Coating options:

1. DURAGLOSS®:

High-performance coating based on polymer resin; resistant to moisture and UV rays; with additional coatings: Anti-Graffiti, Strong-Protect or EcoClean™ (self-and air cleaning).

2. Our products are available in **four gloss levels**: high gloss, satin, matt and MattXTrem.

3. Various surfaces: **smooth, textured or brushed.**

Reynobond® | **Reynolux®**
Architecture | Building



With **excellence in innovation**, Reynobond® Architecture and Reynolux® Building are your partners for more creativity, more versatility and more reliability. As innovation leader in our market segment we offer you:



excellence in innovation is at the same time an aspiration and a challenge. It not only relates to our products, but also involves responsible management of our natural resources. And it is our benchmark ensuring we always provide you with the best available solution for your very particular requirements. Find out more at www.excellence-in-innovation.eu.

About Reynobond® Architecture and Reynolux® Building

Reynobond® Architecture and Reynolux® Building are trademarks of Alcoa Architectural Products based in Merxheim, France – a subsidiary of Alcoa, the market leader in aluminium. In Reynobond® aluminium composite panels and Reynolux® aluminium sheets, we offer you a wide range of products for architecture and building projects.

What's more, they come with all the solid virtues you would expect of a global company. This means, for example, that you get a warranty of up to 20 years on our DURAGLOSS® surfaces. Member of the ECCA (European Coil Coating Association), our company is certified according to the international standards ISO 14001 and 9001 and OHSAS 18001.



Controlled French manufacturing

Reynobond® Architecture and Reynolux® Building panels are all made in France. Alcoa Architectural Products have ISO 14001 certification, indicating their voluntary engagement in reducing the impact of their activity on the environment at all levels: water, energy or waste.



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Aluminium composite panels and sheets:
Transform – Create – Fascinate.

**THE PERFECT COMBINATION OF AESTHETICS,
FUNCTION AND PROFITABILITY**

¹ This document provides the results for two-sided PVDF. ² Fire certificates for other countries are also available.

The technical data refer to currently available products. Please notice that the specific characteristics of each project have to be taken into account (country, delivery time, size of transport containers etc.).



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Complete versatility in exterior applications – with Reynobond® and Reynolux®.

Reynolux® Building is a coated aluminium sheet manufactured through coil coating. It can be painted with a unique colour variety of coatings. The benefits of Reynolux® Building are versatile. In addition to its UV and weather resistance it is also easy to transform and shape.

Reynobond® Architecture is a composite panel consisting of two coated aluminium sheets that are laminated to both sides of a core (polyethylene or fire-retardant). It offers numerous advantages: Its low weight, small extension, high corrosion and weather resistance make it an outstanding product. Reynobond® Architecture is a solid material offering perfect flatness especially for large-scale implementations with special requirements.

Coming from the same manufacturing plant, the two products can be obtained in identical colours and combined in the same project, from the single-family house to residential, commercial and industrial buildings to large prestige projects.

Applications Reynobond® Architecture:

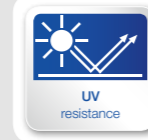
- Facades (ventilated facades)
- Exterior claddings, roof construction and trims
- Implementation of flat or curved soffits
- Claddings for balconies
- Accessories: gutters, window sills

Applications Reynolux® Building:

- Facades (trapezoidal or corrugated metal sheeting, cassettes, facade accessories, sandwich panels, honeycomb panels)
- Roofs (roof claddings, standing seam roofs, roof profiles, gutters)
- Accessories (seals for façades, roofs, corners etc., edge finishings, window sills)

Advantages:

- Cost-effective: easy and quick installation
- In widths up to 2,000 mm and lengths up to 6,050 mm
- Flexible and short delivery times
- Advice, before and during projects



UV resistance



Weather resistance



Economical



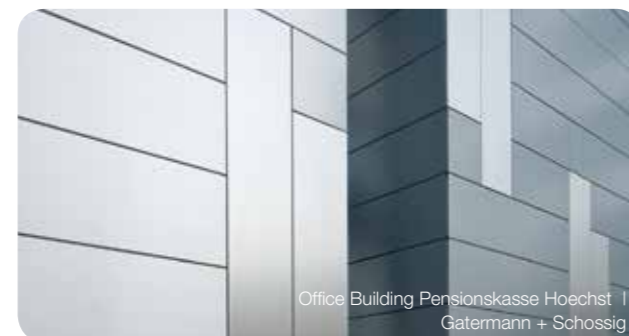
Easy maintenance



20 years Warranty surface durability



Wilhelm Filchner School | RSE Planungsgesellschaft mbH



Office Building Pensionskasse Hoechst | Gatermann + Schossig

Reynobond® Architecture

- Pre-painted aluminium sheet
- Core (PE or FR)
- Pre-painted aluminium sheet

Reynolux® Building

- Pre-painted aluminium sheet

Versatile and easy to transform.

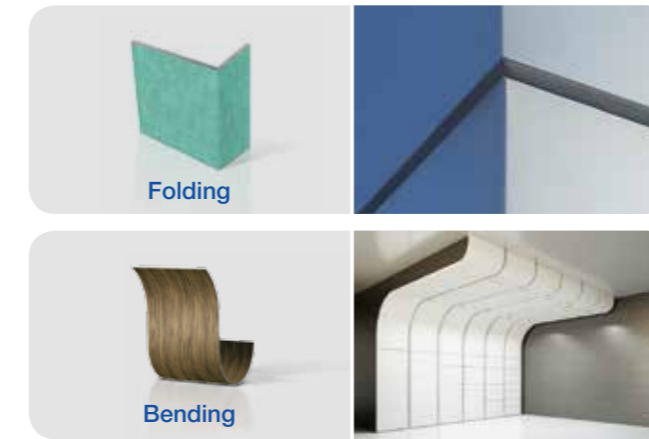
Reynobond® Architecture and Reynolux® Building are characterised by an easy and quick installation but also by a long service life that requires little maintenance. The flexibility in transformation allows freedom in design for unusual shapes.

Reynolux® Building

Transformation
Bending, profiling, pressing, rolling ...

Reynobond® Architecture

Transformation
Bending, rolling ...



Wide range of colours.

You can find all surfaces in our colour charts:

- WOOD Design: Oak, Zebrano
- NATURAL: Granite, Minerals
- STANDARD: Unicolour
- EFFECTS: Chameleon, sparkling
- METALS: Stainless steel, brushed, mirror



All RAL- and NCS-standard colours can be supplied, as well as customized colours.



IRSN Headquarters | Jean De Nascimento, Architeca

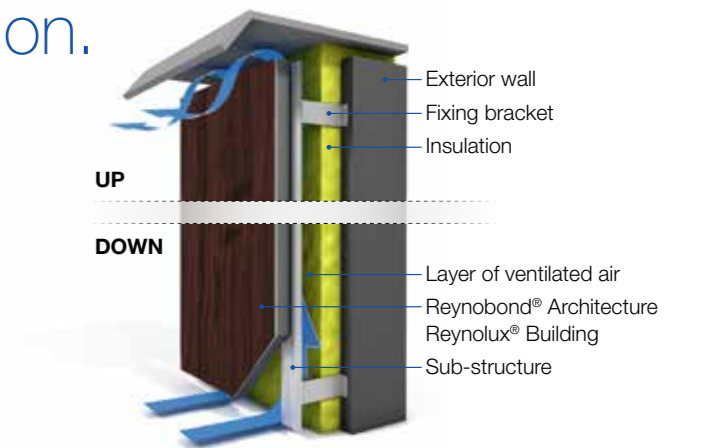
Reynobond® and Reynolux® in the same project.



Hospital "Papa Giovanni XXIII" | Zublena & Traversi Architetti Associati, Aymeric Zublena

Ventilated facades – An energy-saving solution.

The Reynobond® Architecture and Reynolux® Building ventilated facades contribute greatly to improving the energy performance of buildings and to achieving the objectives defined by the HQE (High Quality Environmental) approach and specific labels such as HPE (High Energy Performance) and Effinergie as well as for passive houses and renovation projects.



Advantages:

- Thermal inertia
- Reduction in structural thermal bridging
- Reduction in energy consumption
- Protection against rain and weather
- Lasting protection of investment
- Acoustic insulation improvement of 8 dB to 14 dB



Business Center Emporio | Haro de Miguel Arquitectos S.C.

Environmental option: Reynobond® | Reynolux® with EcoClean™.

Reynobond® | Reynolux® with EcoClean™ are the first aluminium facade materials (sheet or composite panel) that are both cost-effective and environmentally friendly. Using sunshine and humidity, particles of dirt and smog are rendered harmless. This is how the EcoClean™ coating contributes to the self-cleaning of the facade and the removal of pollution from the surrounding air.

Advantages:

- **Protecting the environment**
1,000 m² of EcoClean™ destroy as much atmospheric pollution as about 80 trees. This is equivalent to the daily emissions of four cars.
- **Improvement of image**
The facade remains beautiful and clean over the long term.
- **Cost-effectiveness**
The self-cleaning feature of Reynobond® | Reynolux® with EcoClean™ considerably reduces the costs of cleaning and maintenance. Over half the costs of cleaning and scheduled maintenance on the facade can be saved.

Application:

EcoClean™ is applied to walls exposed to rain and sunshine.

Availability:

EcoClean™ is applied onto matt or satin finish, with the exception of the darker satin colours in DURAGLOSS® 5000.

Additional information:

To find out more about EcoClean™, you can retrieve information, videos or brochures on our website www.excellence-in-innovation.com, on the EcoClean™ tab.



THE FIRST CLADDING PANEL TO CLEAN BOTH ITSELF AND THE SURROUNDING AIR.