



Reynobond[®]
Architecture



Aluminum
Composite Material



Dedicated to your Success

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Alcoa Architectural Products understands that architects, designers, fabricators and installers share one common trait: *you're only as good as your current project*. Every new job presents a fresh set of challenges. And your ability to meet those unique challenges is the basis by which your clients will measure your work.

That's why we've built our company to provide comprehensive architectural solutions that enhance your ability to succeed. Everything we do is centered on making the design, specification and installation of our building panels as easy, as fast and as affordable as possible.

We develop and deliver innovative cladding products for both interior and exterior applications. Through our popular Reynobond Aluminum Composite Material, our Reynobond Natural Metal Composite Material and our groundbreaking Reynobond with KEVLAR[®] hurricane impact panels, we provide durability, design flexibility and enduring performance while ensuring consistency of quality and color from project to project.

And our dedication to your success goes far beyond our products. By offering a wide range of support services such as comprehensive CAD drawings, custom design solutions, on-site consultation and more, the people of Alcoa Architectural Products work to ensure that your next project – *and every project* – is a success.



Reynobond® – wrap your imagination around it



Product Information

When you want to make a design statement, Reynobond is the natural choice, allowing you the flexibility to achieve whatever your mind can conceive.

Exceptionally Flat

The strong, rigid construction of Reynobond composite material consists of a compound core between two sheets of aluminum, brushed aluminum, zinc, stainless steel, copper or titanium. This creates a flat surface that virtually eliminates dimpling, buckling and oil canning.



Daringly Formable

Reynobond is easily routed, drilled, punched, cut, bent, curved and precisely formed via these and other fabrication techniques to achieve small-radius curves, reverse curves, angles and other shapes, to create dramatic and distinctive designs.



Surprisingly Light

The light weight of Reynobond allows a wide variety of design options. Installation is quick and easy. For renovation work, cladding can often be installed with little or no alteration to existing structural elements.



Distinctively Colorful

The high-performance coating systems available for Reynobond provide outstanding color and gloss retention in a virtually limitless range of hues. Standard and custom finishes are available, including anodic colors. Continuous coil application ensures consistent, long-lasting color.



USDA-ARS Southern Horticultural Laboratory, NOW Specialties, Inc.



Easily Integrated

Reynobond integrates easily with the curtain wall provided by most manufacturers. The result is a seamless look for a building's façade – with the added design characteristics that only Reynobond can offer.



Beautiful Accents

Reynobond's family of Natural Metal products allows every element of the structure to become an element of design – through shaping, color and more. Reynobond's strength, weight and formability allow you to achieve designs that are not feasible with other materials.



Made for Each Other

Alcoa's Metal Wall Panels are the perfect complement to our family of Reynobond Aluminum Composite Material. The ability to combine these high-quality products in pre-matched or custom colors creates a number of distinct design advantages.



Guaranteed Safe

Reynobond is fully tested and environmentally safe, with building code approvals throughout the world. It is available with either a polyethylene (PE) core or a fire-resistant (FR) core material. Both products offer the flatness and formability required for demanding applications.



Reynobond® Natural Metals

Our Natural Metal composite panels provide all the functional benefits of Reynobond, with the clean, aesthetic impact that can come only from nature's finest elements. They are ideal as wall panels or accents for interior and exterior applications that emphasize natural beauty.

Reynobond ZCM

Made with a metal-zinc alloy that's stronger than common zinc, ZCM weathers naturally in the environment, with no coatings required. It greatly expands the number of architectural applications where zinc façades and accents can be used.

Reynobond Natural Brushed Aluminum

Reynobond Natural Brushed Aluminum combines the natural beauty of brushed aluminum with a high-performance protective sealant to meet the consistency and durability requirements of architectural exterior wall panels.

Reynobond Copper

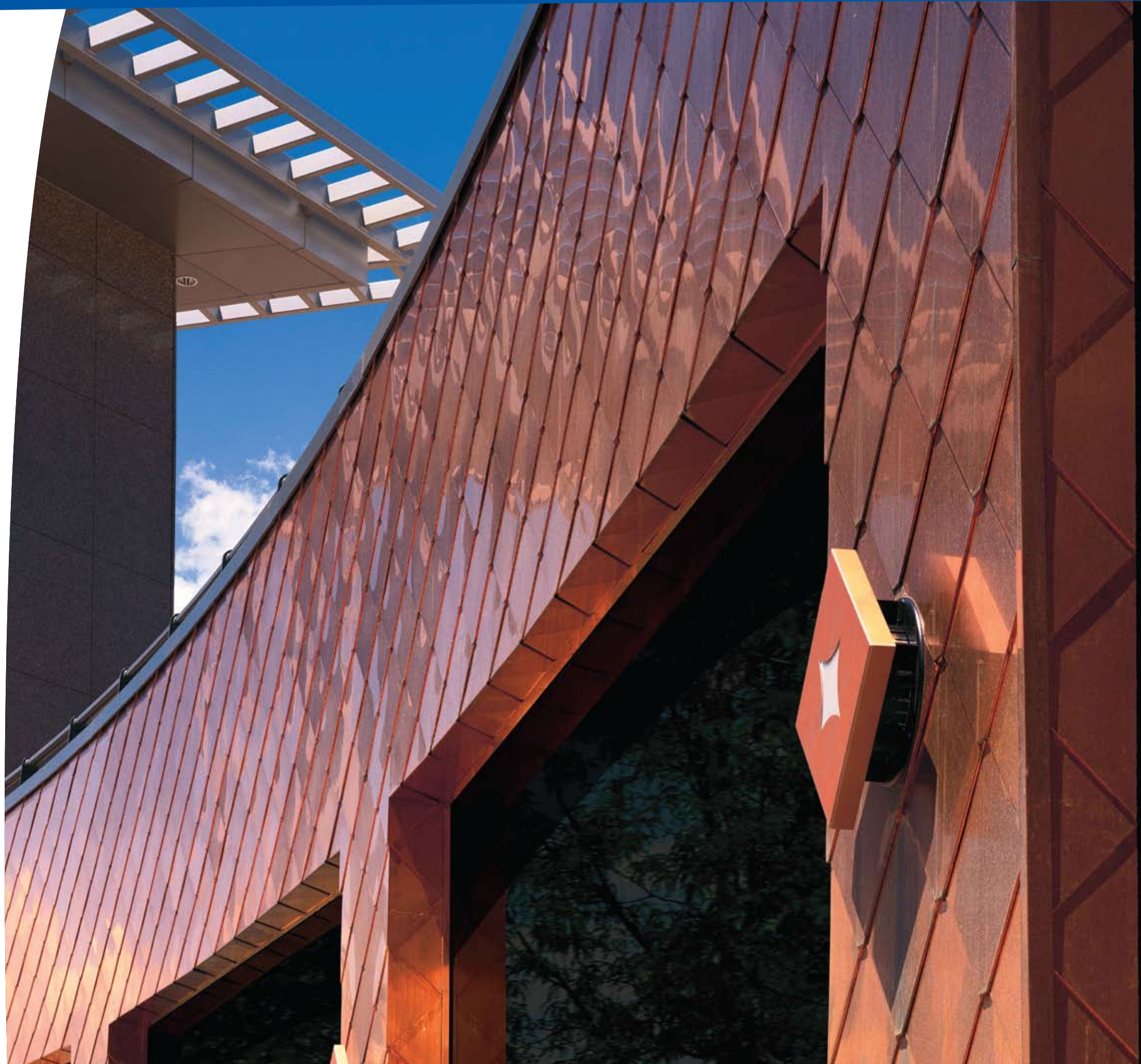
Created specifically for use as an interior or exterior wall accent panel, Reynobond Copper blends the natural beauty of copper with the flatness and formability of composite panels. This timeless metal lends a classic look to any architectural project.

Reynobond Stainless Steel

With its clean, bold look, Reynobond Stainless Steel brings a modern feel to any environment – and provides a superb contrast to wood and other natural elements. It offers formability at a weight much lighter than traditional plate steel.

Reynobond Titanium

Reynobond Titanium combines an exceedingly durable and exotic natural metal finish with the flatness and formability of composite panels. The appearance of its natural, non-directional finish shifts with changing light conditions, displaying a range of unique hues.



Reynobond® with KEVLAR®

Stop hurricane-propelled debris in its tracks



Lightweight. Flexible. And now impact resistant.

Reynobond with KEVLAR® panels combine all the weight and flexibility benefits and new, sustainable paint finishes of Reynobond with the impact-resistant strength that can only come from KEVLAR®.

Celebrated around the world as the lifesaving material in bullet-resistant vests and body armor, DuPont™ KEVLAR® fabric is five times stronger than steel on an equal weight basis. By adding it to Reynobond's polyethylene core, the panel can withstand hurricane-propelled debris and similar types of impact – without the use of heavy backer materials.

Easy to use. Easy to maintain. Affordable to install.

When installed with Alcoa-designed extrusions, Reynobond with KEVLAR® eliminates the need for protective backer materials such as plywood, steel or concrete. Panel modules can be shop-fabricated and quickly installed onto structural steel studs on the jobsite. This decreases the material cost of installation and on-site labor requirements – leading to faster installation, with costs comparable to, and often less than, those of brick, EFIS and stucco.

Designed to meet Miami-Dade County standards.

Reynobond with KEVLAR® is the only standalone aluminum composite material that meets the stringent requirements of the Miami-Dade County Building Code. Installed utilizing Alcoa-designed extrusions, it is engineered to sustain hurricane-force winds while passing small and large missile impact tests.

Miami-Dade County Approved

Reynobond with KEVLAR® is the only standalone aluminum composite material that meets the stringent requirements of the Miami-Dade County Building Code*. Installed utilizing Alcoa-designed extrusions, it is engineered to sustain hurricane-force winds while passing small and large missile impact tests in Alcoa-sponsored trials. (Miami-Dade County, Florida NOA No 06-1025.03)

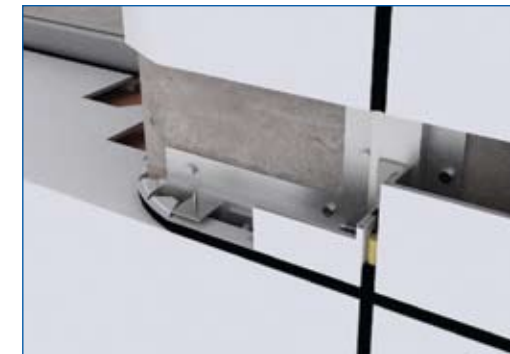
* The Miami-Dade County Building Code stipulates that panel systems withstand the impact of a 9-pound 2x4 timber traveling at 50 feet per second.

Reynobond XXL

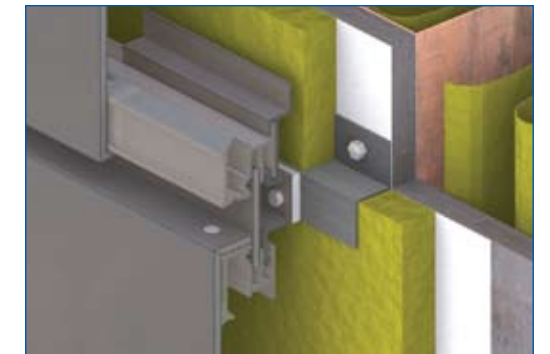
Available in widths up to 78.75", Reynobond XXL offers all the benefits of Reynobond plus expanded versatility. Whatever you have in mind, the Reynobond family of products gives you the flexibility to achieve it.

Reynobond ACM

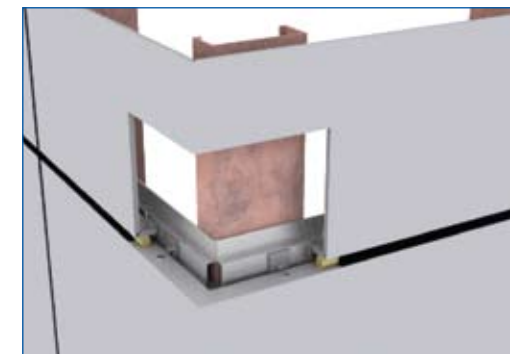
Common applications



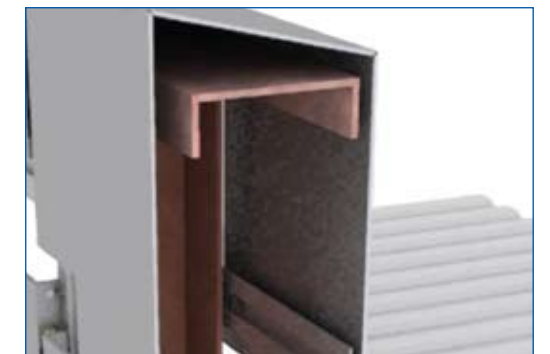
Recessed Windowsill



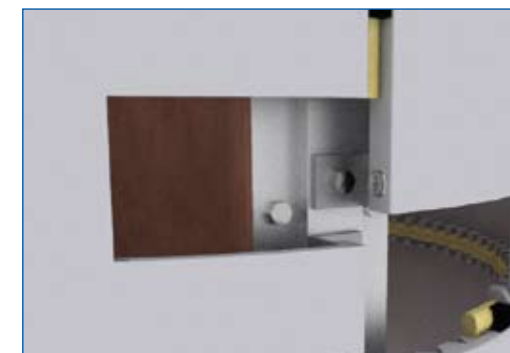
Rainscreen Installation System
Compliments of Riverside Group Ltd.



Outside Corner



Parapet Cap



Curved Wall Panel



Dry Seal Installation System
Compliments of NOW Specialties, Inc.

General data, facts & figures

Reynobond ACM Technical Overview

Property	Units	RB120PE-3 mm	RB160PE-4 mm	RB240PE-6 mm	RB160FR-4 mm	Reynobond with KEVLAR®
Thickness	Inches mm	0.118 3.0	0.157 4.0	0.236 6.0	0.157 4.0	0.157 4.0
Weight	lb/ft² Kg/m²	0.94 4.59	1.12 5.47	1.51 7.37	1.53 7.48	1.10 5.37
Min. Bond Strength ASTM D1781	in-lb/in Nm/m	40 178	40 178	40 178	22.5 100	40 178
Flatwise Shear ASTM D1002	lb/in² Mpa	1,297 8.94	1,221 8.42	2,055 14.17	928 6.4	735 5.07
Allowable Bending Stress (1)	lb/in² Mpa	11,500 79.3	11,500 79.3	11,500 79.3	11,500 79.3	11,500 79.3
Coefficient of Expansion ASTM E228	in/in/F mm/mm/C	1.31x10 ⁻⁵ 2.36x10 ⁻⁵	1.31x10 ⁻⁵ 2.36x10 ⁻⁵	1.31x10 ⁻⁵ 2.36x10 ⁻⁵	1.31x10 ⁻⁵ 2.36x10 ⁻⁵	1.31x10 ⁻⁵ 2.36x10 ⁻⁵
Stiffness (EI)	lb in²/in Mpa cm²/m	807 9.1x10³	1,140 12.8x10³	1,896 21.4x10³	1,262 14.3x10³	776 8.7x10³
Flexural Modulus Aged per ASTM C393 (2)	lb/in² Mpa	8.3x10 ⁶ 57.2x10³	6.0x10 ⁶ 41.4x10³	4.0x10 ⁶ 27.6x10³	6.7x10 ⁶ 46.2x10³	4.08x10 ⁶ 28.2x10³
Moment of Inertia	in⁴/in cm⁴/m	0.97x10 ⁻⁴ 0.159	1.89x10 ⁻⁴ 0.310	4.58x10 ⁻⁴ 0.751	1.89x10 ⁻⁴ 0.310	1.89x10 ⁻⁴ 0.310
Section Modulus	in³/in cm³/m	1.65x10 ⁻³ 1.065	2.41x10 ⁻³ 1.555	3.88x10 ⁻³ 2.503	2.41x10 ⁻³ 1.555	2.41x10 ⁻³ 1.555
Tensile Yield ASTM D638	lb/in² Mpa	8,300 57.23	6,405 44.16	5,314 36.64	6,367 43.90	15,700 108.25
Flatwise Tensile ASTM C297	lb/in² Mpa	1,483 10.22	1,371 9.45	1,099 7.58	961 6.62	513 3.53

(1) Allowable stress may be increased by 33% for wind load.

(2) Reynobond with KEVLAR® flex modulus fabric side up.

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Paint Finish Quick Specification Reference

	CW300/CW300XL	DURAGLOSS® 5000	DURAGLOSS® 3000	CORAFロン®	FLUOROBRITE®	COLORWELD® 100
Warranty	20 yrs.	15 yrs.	10 yrs.	20 yrs.	5 yrs.	5 yrs.
Resin Type	70% PVDF	Modified Polyester	Modified Polyester	FEVE	FEVE	Polyester
UV Performance	****	****	***	***	**	*
Gloss Range	20% - 35%	25% - 35%	20% - 80%	20% - 35%	20% - 80%	20% - 80%
Colors	Opaques Metallics	Opaques Metallics	Opaques Metallics Bright Colors	Opaques Metallics	Bright Colors	Opaques Metallics Bright Colors
Economics	\$\$\$\$	\$\$\$	\$	\$\$\$\$	\$\$\$\$	\$

Safety/Class A Rating Per ASTM E84

	Flame Spread	Smoke Developed
Reynobond PE w/o Joint	PASS* CLASS A	PASS* CLASS A
Reynobond PE w/ Joint	PASS* CLASS A	PASS* CLASS A
Reynobond FR w/ Joint	PASS* CLASS A	PASS* CLASS A
Reynobond with KEVLAR®	PASS* CLASS A	PASS* CLASS A

*Flame spread ≤ 25, smoke developed ≤ 450.

Building Code Recognition

ICBO Evaluation Report	No. PFC-4909, PFC-5051
BOCA Research Report	No. 93-57
SBCCI PST & ESI Report	No. 9509
New York City M.E.A.	MEA 75-91-M, MEA 390-99-M
Los Angeles Research Report	No. RR 25121, RR25285
State of Wisconsin Approval	No. 990033-1
Miami-Dade N.O.A.	No. 06-1025.03
Florida Building Code	Pending

Chicago • Canada • United Kingdom • Singapore
Australia • New Zealand • Malaysia • France
Germany • China • Hong Kong • Poland • Israel

Product Availability

	Thickness	Standard Widths**	Standard Lengths*
RB120PE*-3 mm	3 mm (0.118")	Consult for program widths including: 1000 mm (39.37") 1220 mm (48") 1270 mm (50") 1295 mm (51") 1524 mm (60") 1575 mm (62")	1220 mm (48") to 6172 mm (20' 3")
RB160PE-4 mm	4 mm (0.157")	1270 mm (50") 1575 mm (62")	1220 mm (48") to 6172 mm (20' 3")
RB240PE-6 mm	6 mm (0.236")	1270 mm (50") 1575 mm (62")	1220 mm (48") to 6172 mm (20' 3")
RB160FR-4 mm	4 mm (0.157")	1270 mm (50") 1575 mm (62")	1220 mm (48") to 6172 mm (20' 3")
Reynobond with KEVLAR®	4 mm (0.157")	1270 mm (50") 1575 mm (62")	1220 mm (48") to 6172 mm (20' 3")

*Consult for standard lengths. **Consult for color & finish availability.



Alcoa Architectural Products

50 Industrial Boulevard
Eastman, GA 31023-4129
Tel. 478 374 4746

www.alcoaarchitecturalproducts.com

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