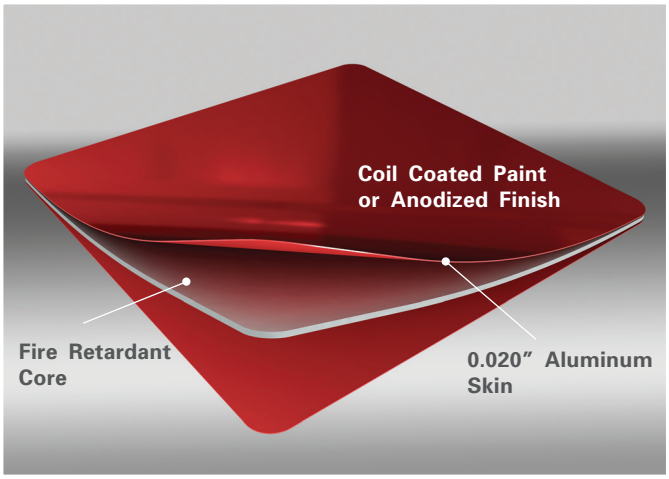

ALUCOBOND® Plus

As the original "aluminum composite material," ALUCOBOND® Plus has been developed exclusively to allow architects and designers to meet the fire performance requirements of today's building standards while using ACM as the material of choice. Consisting of two sheets of smooth .020" aluminum thermobonded to a solid, fire retardant core, ALUCOBOND Plus is one component of the assembly that meets the requirements of fire classifications while offering the proven product properties such as flatness, form-ability, durability and ease of fabrication.

The versatile characteristics of ALUCOBOND® Plus provide for a plethora of applications such as exterior and interior cladding, column covers, canopies, soffits and even signage, allowing architects to offer inspiring, creative, and innovative designs while meeting the standards of sustainable planning.

ALUCOBOND® Plus is available in all of our current finishes and custom colors.

PRODUCT DESCRIPTION

Material Composition

› Aluminum interior and exterior facings in 0.020" nominal thickness to ensure flatness
› Proprietary fire-resistant core available in 4mm nominal thickness only

Sheet Widths

› Standard coil coated widths include 50" and 62"
› Standard anodized widths include 62"
› Custom width 40"

Sheet Lengths

› Standard lengths include 146" and 196"
› Custom lengths for coil coating up to a maximum of 360"
› Custom lengths for anodized up to a maximum of 216"

Minimum Bending Radius

› The minimum bending radius of Alucobond Plus without routing the interior skin is 15 times the thickness of the material

FIRE TESTING

Wall Assembly Fire Performance Tests

› NFPA 285: Passed
› CAN/ULC-S134: Passed

TECHNICAL SUMMARY

Temperature Resistance

› Withstands environmental temperature changes from -55˚F to +175˚F
› Coefficient of linear expansion is governed by the aluminum sheet

Technical Properties

	4mm
› Nominal Thickness:	
› Nominal Weight:	1.56 lb/ft^2
› Moment of Inertia:	.000212 in^4/in
› Section Modulus:	.00275 in^3/in
› Rigidity:	2143 lb-in^2/in

Sustainability Design

› LEED 3
› LEED v4
- LCA Industry Standard
- EPD Industry Standard

Accepted Code Evaluation Reports

› 1. ICC-ES
› 2. Florida Product Approval
› 3. City of Los Angeles
› 4. Miami-Dade County NOA

MANUFACTURING

Manufacturing Location

ALUCOBOND Plus is currentlymanufactured in Benton, Kentucky USA

To download PDF or AutoCAD details and specifications, visit our website at www.alucobondusa.com.

3A COMPOSITES

ENGINEERING PROPERTIES FOR ALUCOBOND® PLUS MATERIAL

Standard Test Method*	Description	Category	4mm
ASTM D-635	Rate of Burning	Fire Performance Properties	CLASSIFIED CC1
ASTM D-1929	Ignition Temperature-Self	Fire Performance Properties	783˚F
ASTM D-1929	Ignition Temperature-Flash	Fire Performance Properties	784˚F
ASTM E-84	Surface Burning Characteristics (Flame Spread Index)	Fire Performance Properties	0
ASTM E-84	Surface Burning Characteristics (Smoke Development Index)	Fire Performance Properties	0
CAN/ULC-S102	Surface Burning Characteristics (Flame Spread Index)	Fire Performance Properties	5
CAN/ULC-S102	Surface Burning Characteristics (Smoke Development Index)	Fire Performance Properties	0
ASTM C-365	Flatwise Compression Strength (Ultimate)	Mechanical Properties	9291 psi
ASTM C-393	Core Shear Properties (Perpendicular) Ultimate Facing Bending Stress	Mechanical Properties	24,720 psi
ASTM C-393	Core Shear Properties (Parallel) Ultimate Facing Bending Stress	Mechanical Properties	22,732 psi
ASTM D-790	Flexural Modulus (Perpendicular)	Mechanical Properties	1891 ksi
ASTM D-790	Ultimate Flexural (Perpendicular)	Mechanical Properties	18,573 psi
ASTM D-790	Flexural Modulus (Parallel)	Mechanical Properties	1815 ksi
ASTM D-790	Ultimate Flexural (Parallel)	Mechanical Properties	17,703 psi
ASTM D-790	Yield Flexural Stress (Perpendicular)	Mechanical Properties	6667 psi
ASTM D-790	Yield Flexural Stress (Parallel)	Mechanical Properties	6930 psi
ASTM D-638	Modulus of Elasticity (Perpendicular)	Mechanical Properties	2930 ksi
ASTM D-638	Tensile Stength (Perpendicular)	Mechanical Properties	7750 psi
ASTM D-638	Tensile Yield at .2% Offset (Perpendicular)	Mechanical Properties	6570 psi
ASTM D-638	Elongation (Perpendicular)	Mechanical Properties	14.2%
ASTM D-732	Punching Shear (Maximum Shear Load)	Mechanical Properties	2198 lbs
ASTM D-732	Punching Shear (Shear Strength)	Mechanical Properties	4615 psi
ASTM C-518	Thermal Conductivity	Thermal Properties	U=6.5 Btu/hr ft^2 ˚F
ASTM C-518	Thermal Resistance	Thermal Properties	R=0.16
ASTM C-518	Thermal Conductance	Thermal Properties	6.25
ASTM D-648	Deflection Temperature - Perpendicular	Thermal Properties	185˚C
ASTM D-648	Deflection Temperature - Parallel	Thermal Properties	189˚C
ASTM C-273	Shear Test in Flatwise Plane (Ultimate Core Shear Strength)	Bond Integrity Properties	765 psi
ASTM C-297	Tensile Bond Strength Test in Flatwise Plane (Ultimate)	Bond Integrity Properties	1016 psi
ASTM D-1781	Bond Integrity	Bond Integrity Properties	123 N mm/mm
ASTM E-90	Sound Transmission (STC)	Acoustical Properties	30
ASTM E-90	Sound Transmission (OITC)	Acoustical Properties	24
ASTM C-272	Water Absorption	Physical Properties	0.003%
ASTM D-696	Coefficient of Linear Thermal Expansion	Physical Properties	$1.11x10^{-5}$ in/in ˚F

*The ASTM (American Society for Testing and Materials) Standard Test Method defines the way a test is performed and the precision of the result. The result of the test is then used to assess compliance with a Standard Specification.6

3A COMPOSITES