

alfrex

Fire Resistant & Non-Combustible Cladding



PRODUCT GUIDE
ALFREX PLATE

TABLE OF CONTENTS

1	About Us
2	Product Introduction
3	Product Composition
4	Product Features
5	Reference Data
6	Fire Test Performance
7	Additional Products and Publications

ABOUT ALFLEX, LLC.

Alflex, LLC is specialized in fire-resistant and non-combustible architectural metal wall cladding with a portfolio including Alflex FR Metal Composite Material, matching flat sheet, coil coated aluminum Alflex Plate, and primer coated Alflex Plate for post painting small lot, custom colors.

Its parent company, Unience, Co Ltd., began operation in 2000 as a manufacturer of specialty fire-resistant coatings, bonding materials, and pelletized mineral filled compound for the manufacture of Fire-Resistant FR Aluminum and Metal Composite Panels (MCM). In 2008, after supplying numerous major MCM brands with FR compound, Unience launched Alflex FR ACM in South Korea with a multi-line MCM production facility dedicated to the exclusive production of FR ACM utilizing in-house, fire-resistant core technology. Sales growth across 5 continents prompted the 2016 move of Unience's Global Headquarters to the USA and the establishment of Alflex, LLC, with North American commercial offices in Atlanta and Toronto.

In mid-2020, Alflex will commence production at its new FR-only MCM production facility in Buford, Georgia. The operation will provide the market with a more competitive domestically produced FR ACM product with shorter lead times, and a differentiated extended product line including 3mm thick, non-combustible, coil coated aluminum plate.

PRODUCT INTRODUCTION

MERCEDES BENZ BRISBANE
Brisbane, Australia | Black, White, Anthracite Gray, Silver Metallic

INTRODUCING ALFLEX PLATE

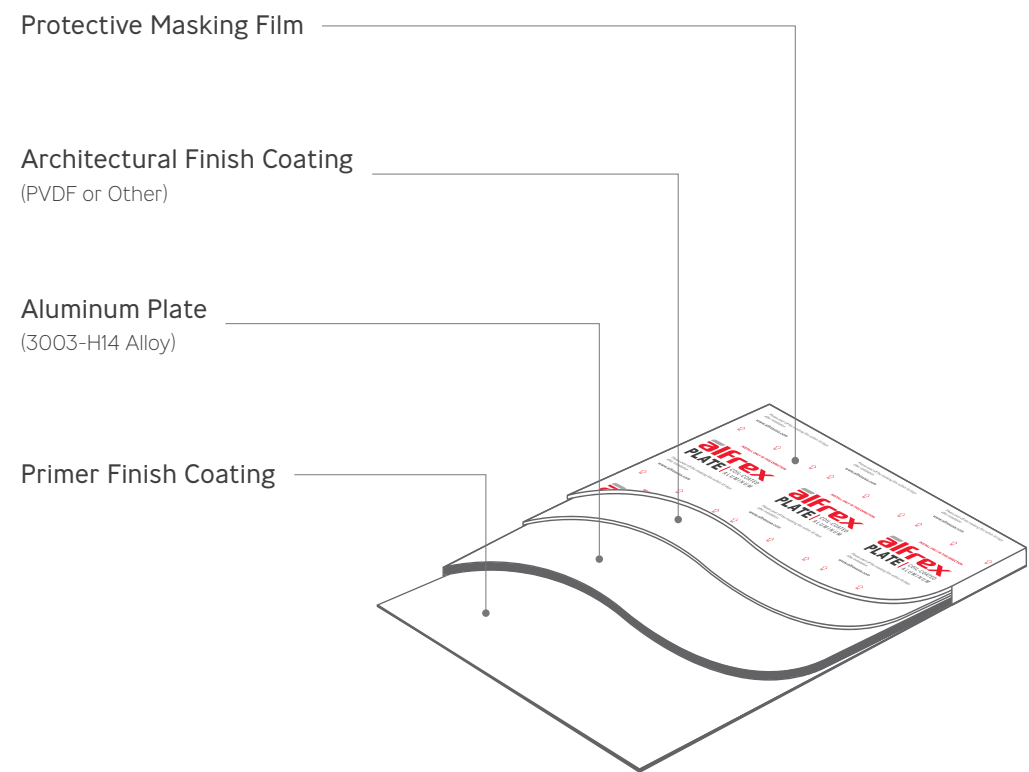
Alflex Plate is a 100% solid aluminum, non-combustible wall cladding panel. With a standard thickness of 0.125" (3mm) by a maximum 62" width, it is also available in 0.100" (2.5mm), 0.080" (2mm), as well as custom widths. It is pre-finished by coil coating lines specialized in handling heavier gauge solid aluminum coil, tension leveled, and cut to length per the requirements of each project. Its 70% PVDF Kynar resin paint system ensures color consistency and outstanding UV protection, and can be coated in coordination with Alflex FR ACM standard or custom colors. The backside is primer coated to minimize oxidization and enable post-paint spray coating for small lot custom colors, where air dry or baked finishes are desired.

alfrex
PLATE | COIL-COATED
ALUMINUM



PRODUCT COMPOSITION

COMPOSITION OF ALFREX PLATE



PRODUCT FEATURES

MELBOURNE GIRL'S COLLEGE
Melbourne, Australia | Pure Silver Mica

FEATURES OF ALFLEX PLATE

Non-Combustibility

Alflex Plate is non-combustible 100% solid aluminum, 3003 H14 alloy. For applications where meeting local building codes or satisfying owner preference is mandated, a non-combustible metal wall cladding option may be desired. Alflex Plate fits this requirement and much more.

Coil Coated Aluminum Plate

Architectural quality coil coated finishes are rarely available on plate thickness greater than 0.080". With Alflex 3mm Plate, "Coil Coated" is the standard. Projects requiring a non-combustible solution with greater panel spans can count on Alflex 3mm Plate, coil coated with the same wide range of finishes and exterior coating performance warranties as Alflex FR ACM.

Custom Colors

Alflex provides custom color matching to transform your imagination into reality using the color of your choice. Simply send us a color sample, coating manufacturer paint code, Pantone number, or PMS number, and we'll quickly turn around an accurate match that meets your project requirements.

Small Lot Custom Colors

Alflex stocks 3mm thick aluminum plate in 62" wide x 165" long sheets with a primed back side. This enables the post-painting of sheets in either air dry or baked on spray finishes, eliminating the need for customers to source sheets from multiple sources. This capability also provides a more economical solution for small, custom color requirements where coil coating minimums cannot be met.

Cut to Length for the Project

Alflex Plate is tension leveled and cut to length per the requirements of each individual project. With a minimum quantity of 20 sheets per length, customers can take off and optimize Alflex Plate in the same manner as Alflex FR ACM – reducing scrap and processing costs.

Compatibility and Formability

Alflex Plate can be fabricated using proven methods such as: cutting, routing, shearing, bending, folding, and roll forming. It can be folded to a 2T bend naturally, and to 90 degrees when routed from the back side. This enables closer compatibility between Alflex Plate and popular ACM installation systems with only slight modifications.



REFERENCE DATA

STANDARD SIZES

Thicknesses (nominal) :	0.125 in	3 mm
	0.100 in	2.5 mm
	0.080 in	2 mm
Widths:	62 in	1,575 mm
	49.2 in	1,250 mm
	41.3 in*	1,050 mm*
Lengths:	Max 165 in	Max 4,191 mm

* Upon Request

TOLERANCES

Width:	+/- 0.080 in	2 mm
Length:	+/- 0.080 in	2 mm
Thickness:	+/- 0.004 in	0.1 mm

TECHNICAL PROPERTIES

PROPERTY	STANDARD	RESULTS	UNITS
Aluminum Plate Alloy:	-	3003-H14	-
Panel Weight:	-	1.66	lbs / ft ²
		8.10	kg / m ²
Specific Gravity (Product):	-	2.72	g / cc
Coefficient of Expansion:	-	12.9	in / in • °F (@ 68 - 212°F)
Modulus of Elasticity:	ASTM E8	10 X 10 ⁶	Psi
		69 X 10 ³	Mpa
Moment of Inertia:	-	1.37 x 10 ⁻⁴	in ⁴ / in
		5.70 x 10 ⁻³	cm ⁴ / m
Section Modulus:	-	2.32 X 10 ⁻³	in ³ / in
		38.0 X 10 ⁻³	cm ³ / m
Tensile Strength:	ASTM E8	20.3 X 10 ³	Psi
		140	Mpa
Yield Strength:	ASTM E8	17.4 X 10 ³	Psi
		120	Mpa
Elongation:	ASTM E8	5	%
Thermal Conductivity:	C518	193	W / (m • K)

MANTRA EPPING HOTEL
Melbourne, Australia | Black



FIRE TEST PERFORMANCE

RESULTS

ASTM E136

Passed



ADDITIONAL PRODUCTS AND PUBLICATIONS

ICCONS Dandenong South
Victoria, Australia | Monument, Red

ALFLEX MATCHING FLAT SHEET

Alflex stocks tension leveled 0.040" (1mm) aluminum flat sheet in coordinated standard colors.

ALFLEX FR ACM : FIRE-RESISTANT AND CUSTOMIZABLE

Alflex FR is a continuous process manufactured aluminum composite material (ACM) consisting of an extruded fire-resistant core permanently bonded to pre-finished aluminum skins on each side. It is extremely lightweight and exceptionally flat, yet easy to fabricate into any shape. Alflex FR is coil coated utilizing 70% PVDF Kynar resin and other high-quality paint finishes – providing color uniformity, an extensive range of colors, unique coating patterns and textures, and the confidence of industry standard performance warranties. Its properties make Alflex FR an ideal choice for most any architectural design intent imaginable.

For more information on Alflex FR ACM, please consult the Alflex FR Product Brochure or visit www.alfrexusa.com.





943 Gainesville HWY. Bdg 100, Suite 4000, Buford GA, 30518
alfrexusa.com | 470.589.7449 | alfrex@alfrexusa.com

