

INTRODUCTION

General

ALPOLIC®/fr is an aluminum composite material (ACM) with a non-combustible mineral-filled core. Used as an exterior and interior cladding and roof covering on new buildings and retrofit applications, the material is manufactured by Mitsubishi Chemical Functional Products, Inc., and supplied by SGI Architectural Pty Ltd.

Product Composition

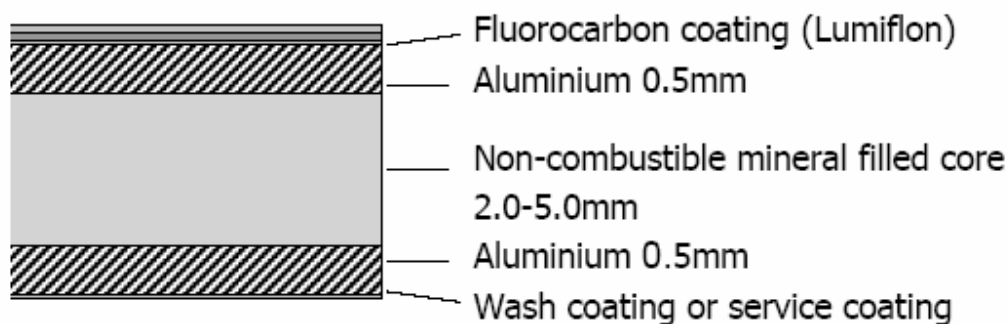
ALPOLIC®/fr is composed of a non-combustible mineral-filled core sandwiched between two skins of 0.5mm thick aluminum alloy (3105-H14):

Composition Skin material: 0.5mm thick aluminum (3105-H14)
 Core material: Non-combustible mineral filled core

The surface is finished with a high-performance Lumiflon-based fluorocarbon coating, and the back is a wash coating or service coating. ALPOLIC®/fr is available in four finishes: Solid Colors, Metallic Colors, Sparkling Colors and Stone Series. In these finishes, Lumiflon-based fluorocarbon paints are applied in manufacturer's continuous coil coating lines. The Lumiflon-based fluorocarbon coating complies with the "specification for coated coil for exterior building applications" issued by both the ECCA (European Coil Coating Association) and the AAMA (American Architectural Manufacturers Association).

The back of ALPOLIC®/fr (which will face the structural wall or steel when it is installed as a cladding panel) has a polyester-based wash coating or service coating to protect it from possible future corrosion problems.

The surface is protected during transportation, fabrication and installation with a self-adhesive peel-off protective film consisting of two polyethylene layers of white and black. According to weathering tests under normal outdoor conditions, the protective film will withstand six months' exposure without losing its original peel-off characteristic or causing stains or other damages.



Total thickness: 3mm, 4mm and 6mm

INTRODUCTION

Product dimension and tolerance

- (1) Panel thickness: 3mm, 4 mm and 6 mm
(2) Panel size: Width = 965, 1270 and 1575 mm (for users' selection)
Length = less than 7200 mm (for users' selection)

Note: Custom width can be accepted between 914 mm and 1640 mm subject to minimum quantity. Please contact our local distributors or our sales office.

- (3) Product tolerance
Width: ± 2.0 mm
Length: ± 4.0 mm
Thickness: ± 0.2 mm
Bow: Maximum 0.5% of the length and/or width
Squareness: Maximum 5.0 mm
Surface defect: The surface shall not have any irregularities such as roughness, buckling and other imperfections in accordance with our visual inspection rules.

ALPOLIC®/fr is supplied with a cut edge and without aluminum sheet displacement or core protrusion.

Production Process

The production process of ALPOLIC®/fr consists of two lines: a coil coating line and a laminating line.

On the **Coil coating line**, paints continuously applied to an aluminum coil, permitting consistent coating quality. The "Die Coating" on this line, which is very unique technology developed by Mitsubishi Chemical, ensures a smoother, finer coating. A high-performance Lumiflon-based fluorocarbon paint is used on the surface coating, ensuring both high durability and consistent coating quality.

On the **Laminating line**, aluminum coils and the core material are laminated together, creating a very flat panel of composite material. The advanced technology employed enables the production of ALPOLIC®/fr as efficiently as ordinary core materials.

