



# ALPOLIC<sup>TM</sup> NC

Non Combustible Aluminium Composite Material

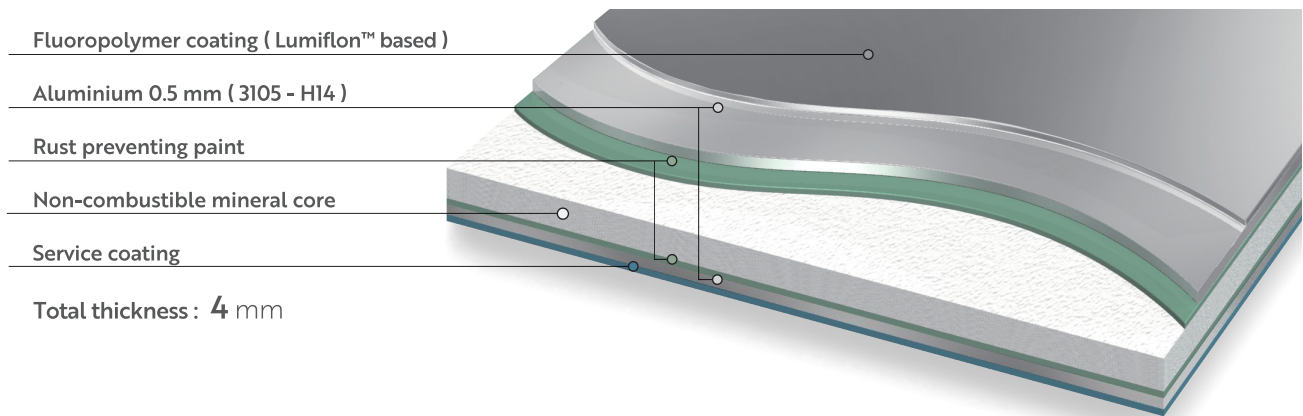
# ALPOLIC™ NC

**Non Combustible**  
Aluminium Composite Material

ALPOLIC™ NC is a fire safe aluminium composite material with a non-combustible mineral core that contains zero polyethylene.

ALPOLIC™ NC can be used as an exterior or interior cladding and roof coverings in both new buildings and re-clad applications wherever a non-combustible material is required.

## Composition of ALPOLIC™ NC



Fluoropolymer coating ( Lumiflon™ based )

Aluminium 0.5 mm ( 3105 - H14 )

Rust preventing paint

Non-combustible mineral core

Service coating

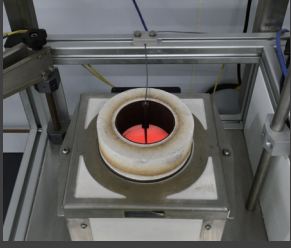
Total thickness : 4 mm

## Dimension ( standard )

Thickness (tolerance ±0.2mm)	Standard width (tolerance; ±2.0mm)	( Bow tolerance)
4 mm	1270, 1575 mm	±0.5 % of the length or width
Skin thickness	Length (tolerance; ±1.0mm/m )	( Diagonal difference )
0.5 mm	1800 - 7200 mm	Max 5.0 mm

## Characteristic ( for standard dimension )

		Method	Unit	
Physical properties	Thickness	-	-	4 mm
	Specific gravity	-	-	2.15
	Weight	-	kg/m <sup>2</sup>	8.6
	Thermal expansion	ASTM D696	×10 <sup>-6</sup> /°C	20.6
	Thermal conductivity	Calculated value	W/m-K	0.4
	Deflection temperature	ISO 75-2	°C	11.5
Mechanical properties of composite material	Tensile strength	ASTM E8	MPa, N/mm <sup>2</sup>	48.2
	0.2% proof stress	ASTM E8	MPa, N/mm <sup>2</sup>	46.5
	Elongation	ASTM E8	%	2.7
	Flexural elasticity, E	ASTM C393	GPa, kN/mm <sup>2</sup>	45.6
Sound transmission loss		ASTM E413	STC	27
Metal thickness with equivalent rigidity		Calculated value		Aluminium 3.3mm



# FIRE SAFETY

**Certified** AS 1530.1 / AS 1530.3

ALPOLIC™ NC is AS 1530.1 & AS 1530.3 Certified.

- Passed BS 476 Part 4 ( core only ).
- Passed ISO1182 tested in accordance with EN13501-1 A1 Classification.



## FLATNESS

ALPOLIC™ NC has the excellent flatness derived from the continuous laminating process.



## COLOR UNIFORMITY

The state of the art Die-Coater coil coating process ensures complete color consistency.



## FINISH DURABILITY

Molecular structure of Lumiflon™ has a higher bond energy than UV ray, thus provides superior UV resistance and enhance finish durability. Proven durability in Australian conditions for over 25 years.



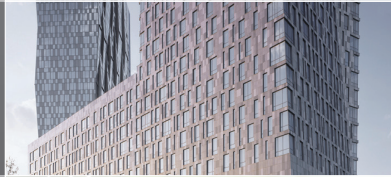
## ANTI CORROSION

Coating on reverse side of ALPOLIC™ prevents galvanic corrosion with dissimilar metals on the building structure.



## WORKABILITY

Easy to process with ordinary fabrication machines and tools.



## RIGIDITY

ALPOLIC NC has superior rigidity. 4mm thick panel is equivalent to 3.3mm thick solid aluminum in rigidity



## ECOLOGY

Recyclable and environmentally friendly. CO2 emission during manufacturing process is 48.2 % lower than 3.3 mm thick solid aluminium. ( 18.95 kg - CO2 / m2 vs 36.57 kg - CO2 / m2 )



## WARRANTY

ALPOLIC NC is backed by globally trusted brand -MITSUBISHI CHEMICAL CORPORATION-. The 20-year coating warranty is available.

## ISO 9001 : 2015 Certified

The production of ALPOLIC™ is ISO 9001:2015 compliant throughout the design, development, manufacture and sales.

## ISO 14001 : 2015 Certified

ALPOLIC™ are produced in plants that have ISO 14001:2004 certificate.

 **MITSUBISHI CHEMICAL CORPORATION**

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