

# ALPOLIC<sup>TM</sup> NC

Non Combustible Aluminium Composite Material

 MITSUBISHI CHEMICAL INFRATEC CO.,LTD.

Advanced Materials Business Unit  
1-1-1, Marunouchi, Chiyoda-ku Tokyo 100-8251, Japan  
Phone: +81-(0)3-6748-7348  
Fax: +81-(0)3-3286-1307  
E-mail: [info@alpolic.jp](mailto:info@alpolic.jp)

MITSUBISHI CHEMICAL ASIA PACIFIC PTE LTD.

ALPOLIC Division  
9 Raffles Place, #13-01/02 Republic Plaza, Singapore 048619  
Phone: +65-6226-1597  
Fax: +65-6221-3373  
E-mail: [info@alpolic.sg](mailto:info@alpolic.sg)

● The information and data contained in this brochure are as of April, 2020.  
● The content of this brochure may be changed without prior notice.  
● The transcription of any data or information contained in this brochure without prior written consent is strictly prohibited.

 LUMIFLON<sup>TM</sup> is a trademark of AGC Chemicals, Asahi Glass Co., Ltd.

[www.alpolic.com](http://www.alpolic.com)

© 2020 Mitsubishi Chemical Infratec Co., Ltd. All rights reserved.

NO.L01441P31401  
Printed in Japan April 2020 (R1X)

**Certified** AS 1530.1 / AS 1530.3

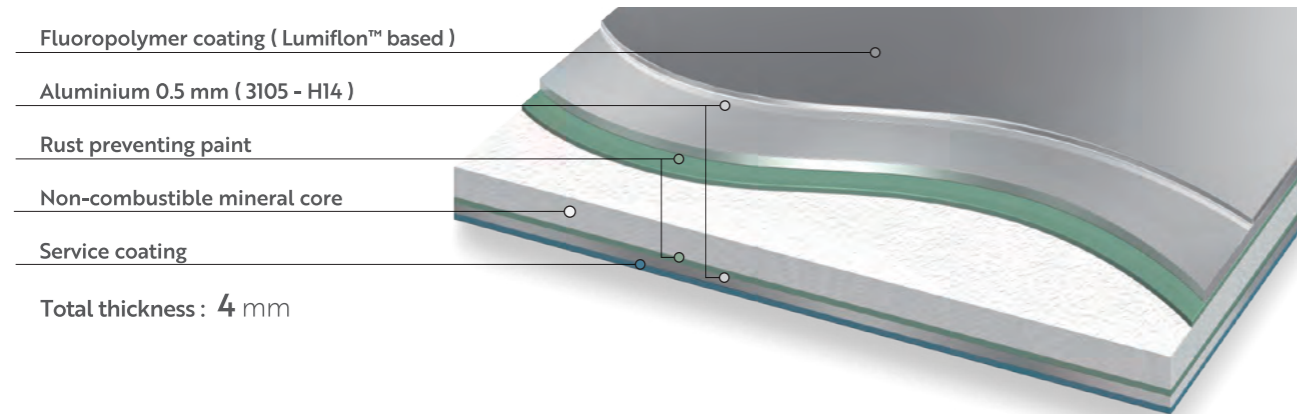
# ALPOLIC™ NC

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



## 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>	
	Thermal expansion	ASTM D696	×10 <sup>-4</sup> /°C	20.6
	Thermal conductivity	Calculated value	W/m-K	0.4
	Deflection temperature	ISO 75-2	°C	115
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 D7250	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	



### 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 aluminium 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-. 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 : 2015 certificate.