



ALUMINIUM COMPOSITE PANEL

**LUMINATE**<sup>®</sup>  
*the Brilliant Choice*

**15**  
YEARS  
Warranty on PVDF

**5**  
YEARS  
Warranty on PE

[www.LUMINATE.CO.ID](http://www.LUMINATE.CO.ID)  
[marketing@luminate.co.id](mailto:marketing@luminate.co.id)

# ABOUT LUMINATE®

LUMINATE® is an Indonesian-made Aluminium Composite Panel (ACP) to answer the growing demand of excellent decorative building materials in Indonesia and neighbouring countries. LUMINATE® panels are made of 2 protective coated aluminium sheets with a solid LDPE core, making them lightweight yet sturdy and flexible for any constructions and allow innovative architectural designs for interior and exterior applications.

## BENEFITS

- Rigid, lightweight and durable
- Weather & rust resistance
- High impact resistance
- Excellent insulating properties
- Easy to fabricate (cut, bent, folded, arched, and shaped accordingly)
- Low maintenance
- Recyclable
- Available in 2 types :

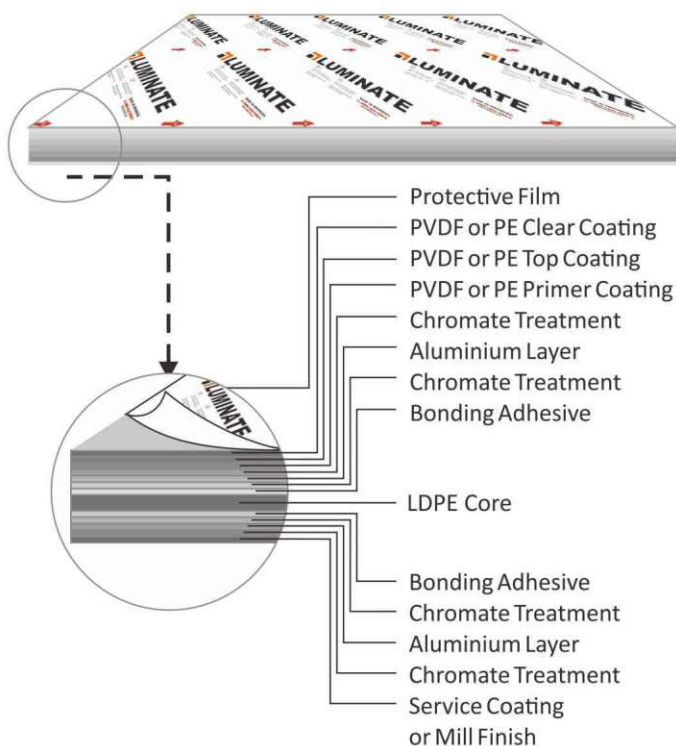
### (a) LUMINATE® with PE Coating

Ideal for internal cladding, wall lining, partitions, kitchen furniture, other interior & decorative purposes.

### (b) LUMINATE® PREMIUM with PVDF Coating

Ideal for external cladding, facade, sun protection, shopfront signage & other exterior usages.

## LAYERS



## SPECIFICATION

No.	Description	Reference Standard	UoM	LUMINATE®	LUMINATE® PREMIUM®
1.	Weight	-	Kg/M <sup>2</sup>	4,5	4,7
2.	Thickness Overall	-	mm	4,0	
3.	Dimension	-	mm	1220*2440 (Custom sizes are available upon request)	
4.	Aluminium Thickness	-	mm	0,21	0,3
<b>Mechanical Properties</b>					
1.	Section Modulus	DIN 53293	cm <sup>3</sup> /m	1,7	
2.	Rigidity	DIN 53294	KN cm <sup>2</sup> /m	2300	
3.	Modulus of Elasticity	EN 1999 1-1	N/mm <sup>2</sup>	69000	
4.	Tensile Strength of Aluminum	EN 485-2	N/mm <sup>2</sup>	R <sub>m</sub> = 130-165	
5.	0,2 % Proof Stress	EN 485-2	N/mm <sup>2</sup>	R <sub>p0,2</sub> Min. 115	
6.	Elongation	EN 485-2	%	A <sub>50</sub> Min. 5	
7.	Linear Thermal Expansion	EN 1999 1-1	mm/m @100 °C	2,4	
8.	Peel Strength 180°	ASTM D903	N/m	Min. 7	
9.	Impact Resistance	ASTM D2794	Kg.cm	Min. 20	Min. 50
<b>Core Properties</b>					
1.	Core	ASTM D1238	-	Recycled LDPE	
2.	Density	ASTM D792	gr/cm <sup>3</sup>	0,92-0,94	
3.	Hardness	ASTM D2240	Shore D	55-65	
4.	Color	-	-	Dark Grey/Black	
<b>Coating Properties</b>					
1.	Color Difference	EN 13523-3	unit	Max. 2,0	
2.	Gloss (initial value)	ASTM D523	%	20-80	
3.	Coating Thickness	ASTM D1400	µm	16±1	25±1
4.	Pencil Hardness	ASTM D3363	-	Min. HB	Min. HB
<b>Corrosion &amp; Chemical Resistance</b>					
1.	Acid Resistance 5% HCL	AAMA 2605	hrs	-	24 hours, No Change
2.	Alkali Resistance 5% NaOH	ASTM D1308	hrs	-	24 hours, Max. 5,0
3.	Nitric Acid Resistance	AAMA620	unit	-	Max. 5,0
4.	Oil Resistance 20#oil	ASTM D1308	hrs	-	24 hours, No Change
5.	Abrasion Resistance	ASTM D968	L	-	Min. 55
6.	Mortar Resistance	ASTM D3260	-	-	No Change
7.	Detergent Resistance	ASTM D2248	-	No Change	No Change
8.	Humidity Resistance	ASTM D2247	hrs	720 hours, No Change	4000 hours, No Change
9.	Salt Spray Resistance	ASTM B117	hrs	720 hours, No Change	4000 hours, No Change
10.	Boiling Water Resistance	ASTM D3359	hrs	2 hours, No Change	4 hours, No Change
11.	Solvent Resistance	ASTM D2248	-	100 times paint retaining	500 times paint retaining
<b>Accelerated Weathering</b>					
1.	Color Retention	ASTM D2244	unit	600 hours, Max. 5,0	4000 hours, Max. 5,0
2.	Gloss Retention	ASTM D2244	unit	600 hours, Max. 5,0	4000 hours, Max. 5,0
3.	Chalking Resistance	ASTM D4214	-	600 hours, Max. 8 Chalk	4000 hours, Max. 8 Chalk
<b>Acoustical Properties</b>					
1.	Sound Absorption Factor	ISO 354	-	0,04	
2.	Sound Transmission Loss	ASTM E90	dB	26	
<b>Thermal Properties</b>					
1.	Thermal Resistance R	ASTM C518	M <sup>2</sup> K/W	0,0103	
2.	Temperature Resistance	-	°C	-20 to 70	
<b>Other Properties</b>					
1.	Contamination Resistance	ASTM WK 38233	%	Max 5	
2.	T-Shape Bending (Flexibility)	ASTM D4145	-	2T Bend, No Cracking or Pick-off	
3.	Adhesion	ASTM D3359	-	Grade 0	

ASTM : American Society of Testing and Materials

ISO : The International Organization for Standardization

DIN : Deutsches Institut für Normung

EN : European Norm

## ■ PE INTERIOR - 5 YEARS WARRANTY

**LUMINATE®**



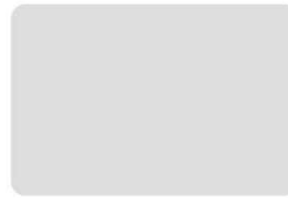
WHITE



CHAMPAGNE GOLD



BRIGHT SILVER



SILVER



YELLOW



RED



BLUE



GREEN



IVORY WHITE



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity

## ■ PVDF EXTERIOR - 15 YEARS WARRANTY

**LUMINATE®**  
PREMIUM



WHITE



CHAMPAGNE GOLD



BRILLIANT BLUE



ROYAL BLUE



BROWN



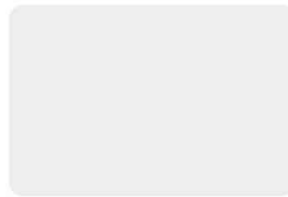
METALLIC GREY



SILVER



LIGHT SILVER



GREY



BRIGHT SILVER



METALLIC BLACK



BRILLIANT RED



ORANGE



DARK YELLOW



BRILLIANT YELLOW



GREEN



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity



**CUSTOM COLOR**

Available with a min order quantity

REMARK: THE COLOR CHIPS ARE FOR REFERENCE ONLY, ACTUAL COLORS MAY VARY SLIGHTLY.





**OFFICE - Sidoarjo**



**COMMERCIAL - Surabaya**



**RELIGIOUS BUILDING - Gereja IGF SBY**



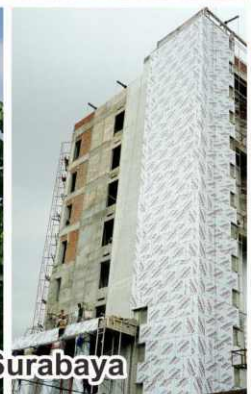
**OFFICE**



**COMMERCIAL - Surabaya**



**HOTEL - Surabaya**



**FACTORY**  
Raya Pilang KM 8 No. 88 Kec. Wonoayu, Sidoarjo 61273. Phone: (031) 88.555.88. Fax: (031) 88.557.99

**SHOWROOM**  
**SURABAYA:** Kembang Jepun 94, Surabaya 60162. Phone: (031) 353.9900. Fax: (031) 353.1189

**JAKARTA:** Mutiara Taman Patem B3 No. 17 Cengkareng Timur, Jakarta Barat 11730. Phone: (021) 2902.4576

[www.LUMINATE.co.id](http://www.LUMINATE.co.id) | [marketing@luminare.co.id](mailto:marketing@luminare.co.id)

