



ALUMINIUM COMPOSITE PANEL
LUMINATE[®]
the Brilliant Choice



Made in Indonesia
15 Years Warranty
www.luminate.co.id

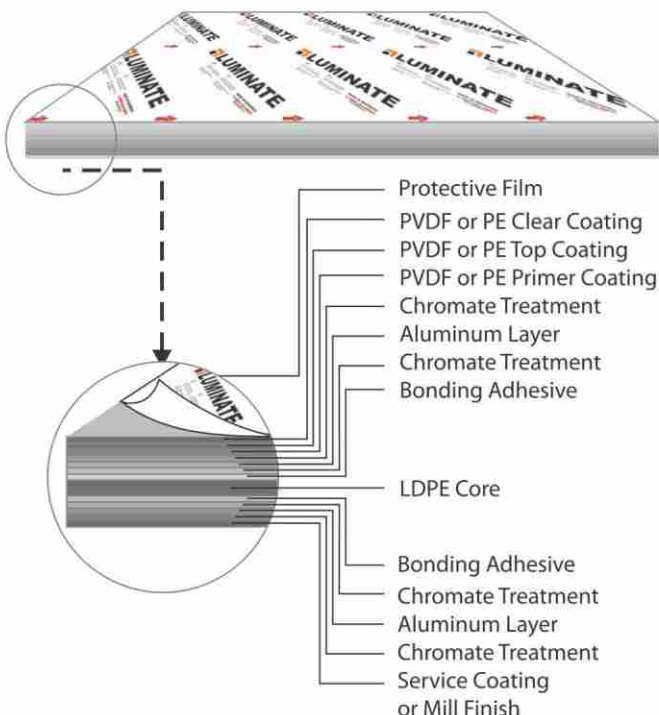
About Luminate®

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 ²	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
Mechanical Properties					
1.	Section Modulus	DIN 53293	cm ³ /m	1,7	
2.	Rigidity	DIN 53294	KN cm ² /m	2300	
3.	Modulus of Elasticity	EN 1999 1-1	N/mm ²	69000	
4.	Tensile Strength of Aluminum	EN 485-2	N/mm ²	R _m = 130-165	
5.	0,2 % Proof Stress	EN 485-2	N/mm ²	R _{p0,2} Min. 115	
6.	Elongation	EN 485-2	%	A ₅₀ 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
Core Properties					
1.	Core	ASTM D1238	-	Recycled LDPE	
2.	Density	ASTM D792	gr/cm ³	0,92-0,94	
3.	Hardness	ASTM D2240	Shore D	55-65	
4.	Color	-	-	Dark Grey/Black	
Coating Properties					
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
Corrosion & Chemical Resistance					
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
Accelerated Weathering					
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
Acoustical Properties					
1.	Sound Absorption Factor	ISO 354	-	0,04	
2.	Sound Transmission Loss	ASTM E90	dB	26	
Thermal Properties					
1.	Thermal Resistance R	ASTM C518	M ² K/W	0,0103	
2.	Temperature Resistance	-	°C	-20 to 70	
Other Properties					
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

PVDF Exterior



White



Champagne Gold



Brown



Brilliant Yellow



Dark Yellow



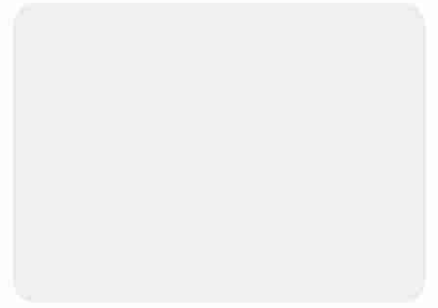
Orange



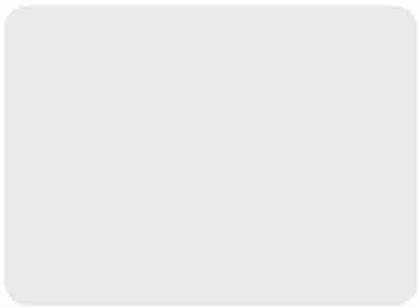
Metallic Black



Metallic Grey



Grey



Bright Silver



Light Silver



Silver



Royal Blue



Brilliant Blue



Brilliant Red

PVDF Exterior



Green



Remark: The color chips are for reference only, actual colors may vary slightly

PE Interior



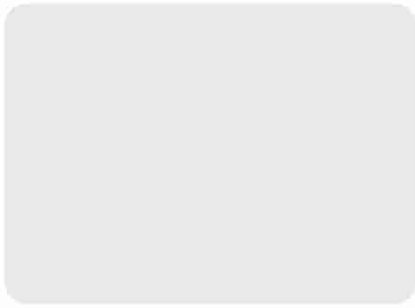
White



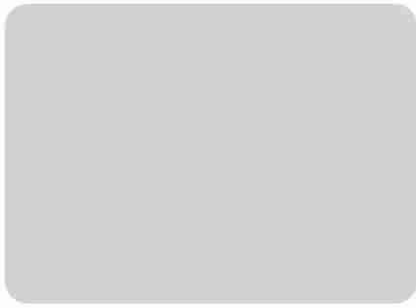
Ivory White



Champagne Gold



Bright Silver



Silver



Red



Blue



Yellow



Green

Solid



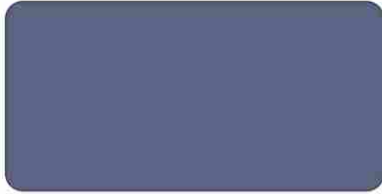
Pure White



Ivory White



Moss Green



Dark Blue

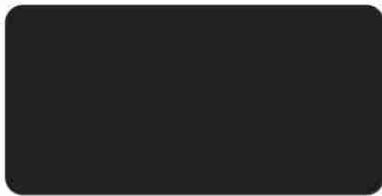


Mail Red



Jet Black

Metallic



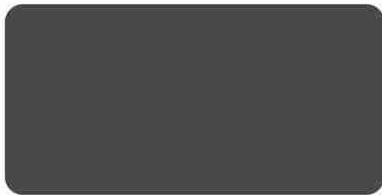
Golden Black



Gold



Brown Copper



Black



Jade Green



Pink Metallic

Sparkling



Pearl Red



Sparkling Blue

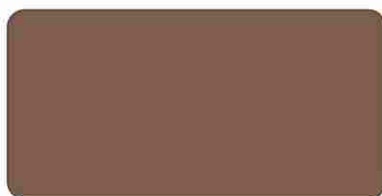


Sparkling Black

Spectra



Spectra Green



Spectra Silver Red



Spectra Silver Blue

Remark: The color stickers are for reference only, actual colors may vary slightly



Speciality



Brush Silver



Brush Gold



Silver Mirror

Wood



LW37487



LW37494



LW37486



LW37373



LW37098



LW37375

Marble



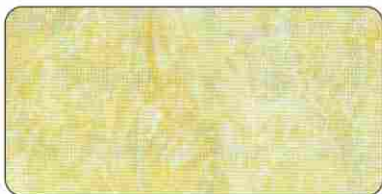
LM37515



LM37492



LM37367



LM37482



LM37069

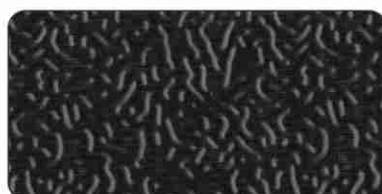


LM37359

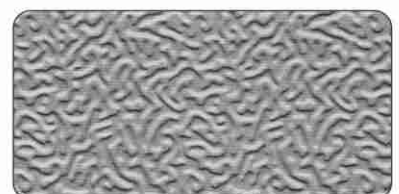
Embossed Aluminium



LE8001 White



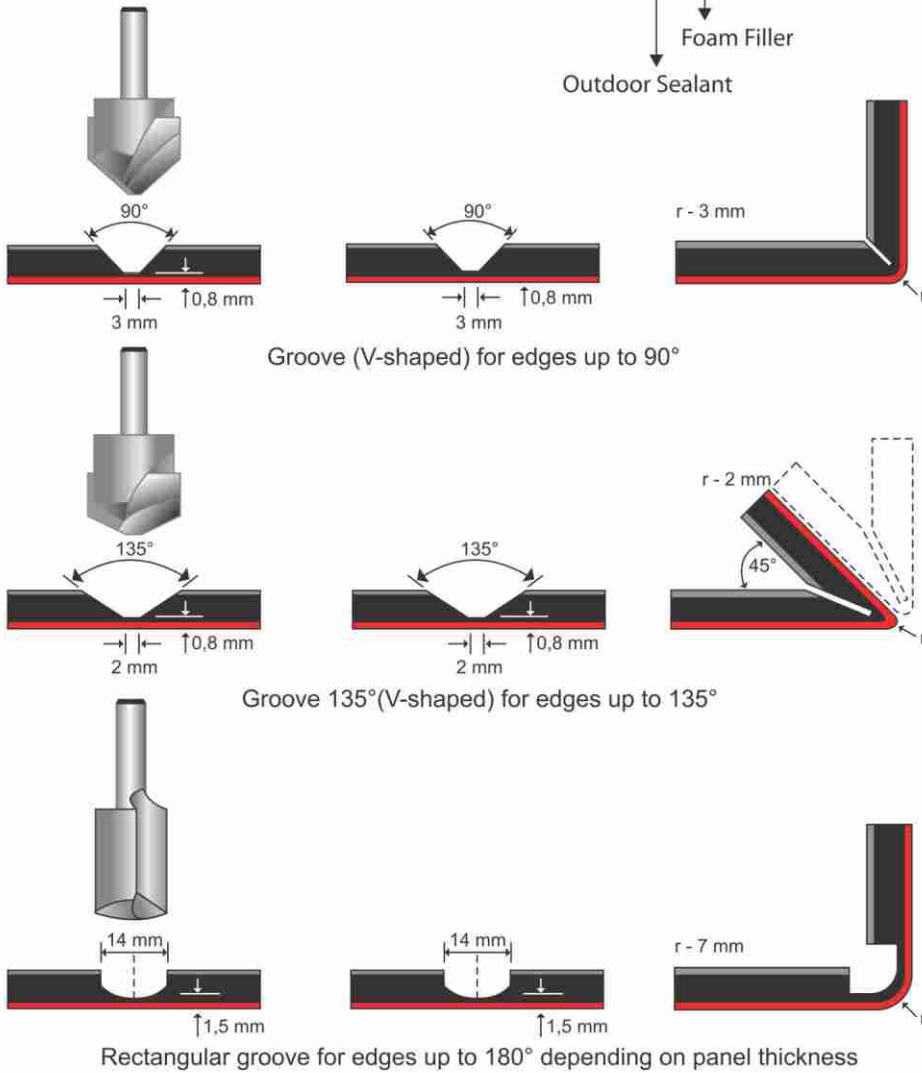
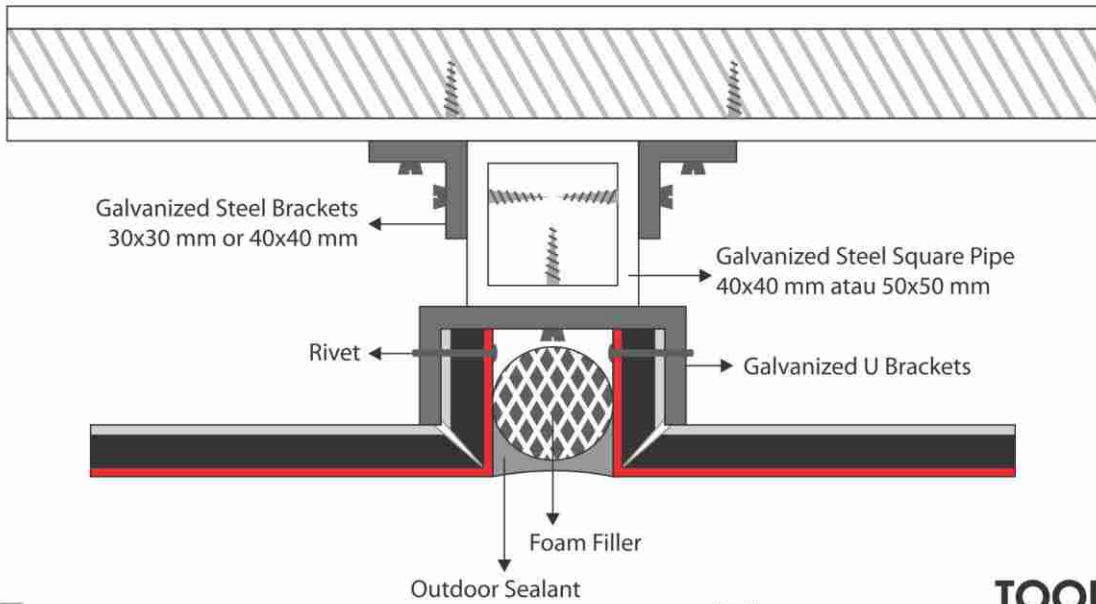
LE8002 Black



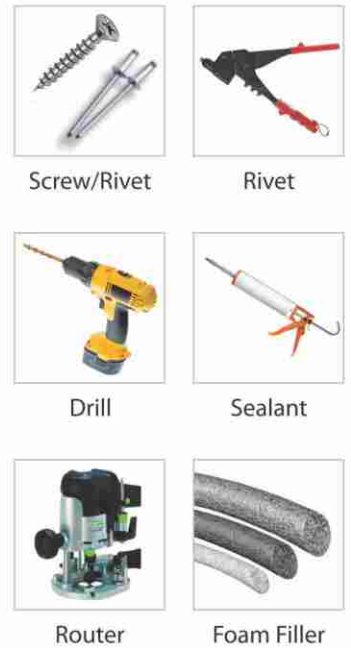
LE8003 Metallic Silver

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Installation



TOOLS



REMARK: PLEASE PEEL PROTECTIVE FILM WITHIN 45 DAYS AFTER INSTALLATION.

Rigidity vs Weight



LUMINATE® is LIGHT!

At equal rigidity of the materials shown, LUMINATE® is the lightest per M²

Portofolio



Commercial | Aeon Mall Sentul Bogor



Hotel | Amaris Pluit Hotel Jakarta



Education | Education Center Samarinda



Office | Pertamina Surabaya



Religious Building | IFGF Surabaya



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