

# COMPANY PROFILE



Ampelite's Factories



Ampelite's Factory, Rayong, Thailand



Ampelite's Factory, Australia

## Ampelite Fibreglass Pty Ltd

Is Australia largest producer and marketer of F.R.P / G.R.P sheeting and cladding. Ampelite Australia has an enviable reputation and have constantly developed a broad range of F.R.P / G.R.P products since the company begun production over 40 years ago.

With the great success in Australia and promising marketing potential in Asia, Ampelite formed Ampelite Manufacturing Co.,Ltd. In Thailand as a Board of Investment's privileged company to expand its production base of high quality fibreglass sheeting.

The companies major aim was to serve both the Thailand domestic market and to support other markets within the ASEAN zone.

## Ampelite (Malaysia) Sdn Bhd as part of the Ampelite Global Group are supported totally regarding F.R.P / G.R.P products from both Ampelite Thailand and Ampelite Australia.

The company is the very first in Asia to obtain certification to AS 4256.3:2006 from SAI Global under license number SMKB20629 and also meets ISO 9001:2008, Certificate No. TH 003614 both for being fibreglass translucent sheeting manufacturer under BVQI Certificate No. 195672 and being sales and service center under BVQI certificate number 07000429.



» Use Distribution Disc technology to uniformly scatter fibreglass



» Modern production process certified to AS 4256.3:2006 by SAI Global



» Reliable quality system with ISO 9001:2008



» Stringently selected raw materials from world renowned sources

# KEY FEATURE & PRODUCT GROUP



- Extra strong and trafficable.
- Reinforce with Ampelite web matt for better strength.
- Top surface is coated with Maxil Shield providing long lasting elegance.
- Bottom surface is coated with DuPont Melinex film for extended working life and profile stability.
- Suitable for a building extra durability, safety high chemical resistance or located in high wind area such as:-
- Air Hanger, Airport Buildings, Power Plant, Chemical Plant.
- Series: 3660gsm, 4270gsm & 4880gsm
- Warranty: 30 years with terms and condition



- Allowing superb Visible Light into the building.
- Reinforce with Ampelite web matt for better strength.
- Two Layers of top surface coated with Maxil Shield and Dupont Melinex providing extra protection against UV and surface erosion.
- Bottom surface is coated with DuPont Melinex film.
- Suitable for a building extra durable ideal for air-conditioned building requiring excellent infrared reflection, and low heat transmission such as:-
- Supercenter , Mega Store, Department Store, Commercial Building.
- Series: 2400gsm, 3050gsm, 3200gsm, 3660gsm, 4270gsm & 4880gsm
- Warranty: 30 years with terms and condition



- Excellent reduce heat transmission while allowing natural light into a building.
- Uniformly reinforced with glass fibre across the sheet with Distribution Disc Technology for extra strength.
- Top surface is coated with Maxil Shield providing long lasting and more elegance.
- Bottom surface is coated with DuPont Melinex film for extended working life and profile stability.
- Suitable for a building requiring heat inflow reduction or for air-conditioned building such as:-
- Department store, Supermarket, Gymnasium, Power Plant, Chemical Plant.
- Series: 2400gsm, 3050gsm, 3200gsm, 3660gsm, 4270gsm & 4880gsm
- Warranty: 30 years with terms and condition



- Provide uniform illuminance, durable and elegantly long lasting.
- Uniformly reinforced with glass fibre across the sheet with Distribution Disc Technology for extra strength.
- Top surface is coated with Maxil Shield providing long lasting and more elegance.
- Bottom surface is coated with DuPont Melinex film for extended working life and profile stability.
- Suitable for a building requiring natural light and lasting beauty such as:-
- Air Hanger, Factory, Warehouse, Swimming Pool, Walkway, Sport Stadium.
- Series: 2400gsm, 3050gsm, 3200gsm, 3660gsm, 4270gsm & 4880gsm
- Warranty: 30 years with terms and condition



- Provide natural light, power saving and long lasting.
- Uniformly reinforced with glass fibre across the sheet with Distribution Disc Technology for extra strength.
- Top surface is coated with Sealex UV film providing long lasting.
- Bottom surface is coated with DuPont Melinex film for extended working life and profile stability.
- Suitable for a modern building requiring evenly diffused natural light such as:-
- Factory, Warehouse, Rice Mill, Gymnasium and General Building.
- Series: 2400gsm, 3050gsm, 3200gsm, 3660gsm, 4270gsm & 4880gsm
- Warranty: 25 years with terms and condition



- Provide natural light and energy saving.
- Uniformly reinforced with glass fibre across the sheet with Distribution Disc Technology for extra strength.
- Top surface is coated with TopLite @ MX Film providing long lasting and elegance.
- Bottom surface is coated with DuPont Melinex film for extended working life and profile stability.
- Suitable for a building when requiring natural light such as:-
- Factory and warehouse.
- Series: 1800gsm, 2400gsm, 3050gsm, 3200gsm, 3660gsm, 4270gsm & 4880gsm
- Warranty: 10 or 15 years with terms and condition

Chemical Resistant product

-: Orthophthalic, Isophthalic, Neo Pentyl Glycol, Bisphenol and Vinyl Ester.  
 -: Chemblok Plus, Chemblok & Toplite CR

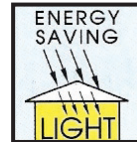
Others Product

-: Wonderglass GC FS Firecheck [ ASTM E-108 : Class A ]  
 -: SL Fire Retardant [ BS : Part 6 & 7 : Class 2 ]

# AMPELITE PRODUCES OF WORLD CLASS FIBREGLASS TECHNOLOGY



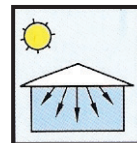
- » Manufactured by fully automatic machine with latest Australian Technology.
- » Use Distribution Disc Technology to uniformly scatter fibreglass.



- » Let natural light into building for free and save energy.



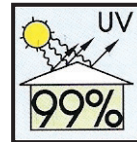
- » Modern production process certified to AS 4256.3:2006 by SAI Global.



- » Provide superior light diffusion.



- » Stringently selected raw materials from world renowned sources.



- » Provide UV protection.

## Fibreglass Translucent Sheeting Selection:

With the continual development of modern building construction for both steel and concrete structure, most international project designer and owners nowadays require both metal roof and wall for up to standard construction and controllable construction lead time and cost. Building interior lighting design and skylight selection vary to type of industry and working activities inside the building, optimal product selection should be based on the following.



- Natural day light saves energy consumption and lighting maintenance. Moreover it lowers global warming from over consuming energy.



- Activities :- Illuminance appropriate to activity in the building which may directly affect efficiency and productivity.



- Industry criteria :- Different industry requires different illuminance depending on complexity of the product.



- Heat transmission :- Lowering heat transmission into building helps create good working atmosphere and cut air-conditioning bill.



- Ventilation :- To provide good ventilation and interior illumination, it is recommended to install metal louver together with fibreglass translucent louver.



- Product quality :- Ampelite translucent sheets are manufactured from premium raw materials by state of the art machinery. First in Asia to receive AS 4256.3:2006 certification from SAI Global, Australian leading certifying body and first in Thailand to obtain ISO 9001:2008 certification for both production and overall services.

## Materials Thickness

Series	Thickness	Weight
1800 gsm	1.2 mm	1.80 kg/m <sup>2</sup>
2400 gsm	1.5 mm	2.40 kg/m <sup>2</sup>
3050 gsm	1.9 mm	3.05 kg/m <sup>2</sup>
3200 gsm	2.0 mm	3.20 kg/m <sup>2</sup>
3660 gsm	2.3 mm	3.66 kg/m <sup>2</sup>
4270 gsm	2.6 mm	4.27 kg/m <sup>2</sup>
4880 gsm	3.0 mm	4.88 kg/m <sup>2</sup>

\*Above thickness are average thickness with tolerance of +- 10%

## Materials Expansion Comparison [ 0°C to 40°C temperature variation. Sheet length 12 metres ]

	Fibreglass	Polycarbonate	Steel	Aluminium
Thermal Expansion	14.4 mm	32.4 mm	5.8 mm	11.5 mm
Thermal Co-efficient	3.0 x 10 <sup>-5</sup> cm/cm°C	6.75 x 10 <sup>-5</sup> cm/cm°C	1.2 x 10 <sup>-5</sup> cm/cm°C	2.4 x 10 <sup>-5</sup> cm/cm°C

## Physical Properties

Description	Webglass		Wonder Cool IR®	Cool-Lite	Supra Glas	Sealex Extra		Toplite	
	Ice Clear	Opal	Sea Pearl	White	Snow Blue	Ice Clear	Opal	Ice Clear	Opal
Series	3660gsm		2400gsm ~ 4880gsm					1800gsm ~ 4880gsm	
Light Transmission	60%	50%	44%	38%	54%	70%	54%	70%	54%
Heat Transmission	53%	42%	20.2%	23.5%	47%	70%	47%	70%	47%
Shading Co-efficient	0.61	0.48	0.232	0.27	0.53	0.79	0.53	0.79	0.53
Top Coating	DuPont Melinex Film + Maxil Shield 130 Microns					DuraGel 100 Micron		TopLite® MX Flim 20 microns	
Bottom Coating	DuPont Melinex® Film								
Tensile Strength	110 MPa		100 MPa						
Impact Strength	10 Joules		8 Joules						
Thermal Expansion	1.9 x 10 <sup>-5</sup> cm/cm°C		3.0 x 10 <sup>-5</sup> cm/cm°C						
Shear Strength	90 MPa								
Modulus of Elasticity	5500 MPa								
Compressive Strength	151 MPa		135 MPa						
Flexural Strength	181 MPa		150 MPa						
Specific Gravity	1.60		1.45						
Thermal Conductivity	0.158 watt/m°C								
Water Absorption	0.2% in 24hrs / 26°C								
Recommended Service Temperature Range	-20°C to +110°C								

Remark: Shading Co-efficient is the ratio of the Solar Heat Gain Co-efficient of test sample to the Solar Heat Gain Co-efficient of a standard 3mm thick single layered glass sheet.

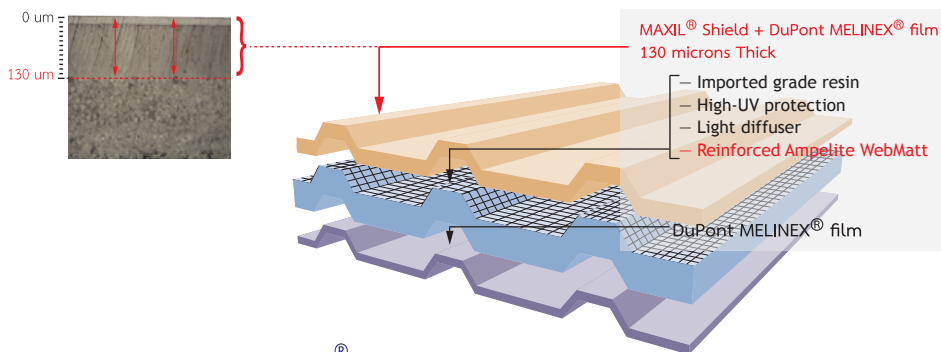
## WEBGLAS®

Ampelite's Webglas translucent roof and wall cladding sheet Ice Clear and Opal colors can safely take foot traffic. Suitable for tall building and strong wind area, specially resistant to chemicals. Ideal for building requiring natural illumination and extra strong translucent roof sheet such as:-

- Air Hanger
- Airport Buildings
- Chemical Plant
- Building in strong wind area

Ampelite's Webglass translucent roofing and walling are manufactured from premium quality Australian standard polyester resin system reinforced with Ampelite web matt in compliant with Australia standard AS 4256.3 : 2006 certified by SAI Global License No. SMKB20629 specific weight 3660gsm. Top surface coated with 100 micron thick Malix Shield providing excellent resistance to UV and surface erosion. Bottom surface coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
Ice Clear		60%	53%	0.61
Opal		56%	42%	0.48



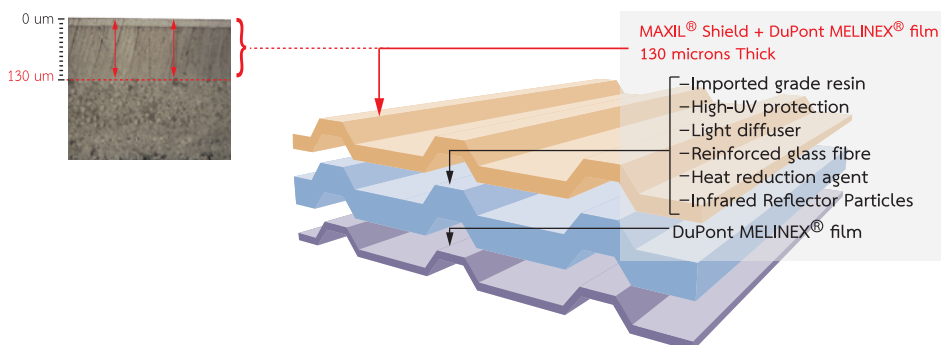
## WonderCOOL IR®

Ampelite's WonderCOOL IR translucent roof and wall sheets is Sea Pearl color can reflect heat radiation and infrared while allowing natural light to enter the building with our Solar Nano technology. With its unique heat reduction characteristic and unrivaled durability and lifespan, it is highly suitable for air-conditioning buildings or buildings which require both excellent heat reduction and uniformly distributed natural light such as:-

- Supercenter / Hypermarket
- Department Store
- Commercial Building

Ampelite's WonderCOOL IR translucent roofing and walling are manufactured from Australian Standard certified, heat reduction polyester resin system mixed with IR (Infrared Reflector) particles, a Solar Nano technology in compliance with Australian standard AS 4256.3:2006, certified by SAI Global License No. SMKB20629 specific to weight 2400 gsm. Top surface is coated with dual layer coating technology, 130 microns thick MAXIL Shield and DuPont Melinex Film, to provide an extra protection against UV radiation and surface erosion. Bottom surface is coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
Sea Pearl		44%	20.2%	0.232



# Product Details

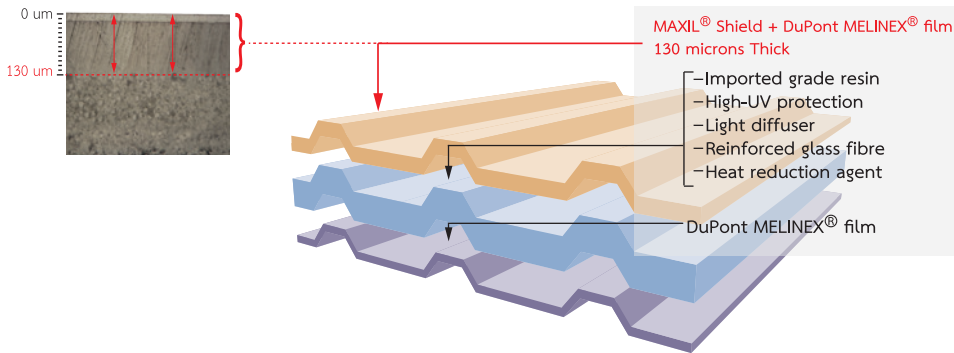
## COOL-LITE®

Ampelite's Cool-Lite Supra translucent roof and wall cladding sheet White color superbly helps lower heat transmission while allowing natural light into building extra durable ideal for building requiring heat transmission reduction with air-conditioning such as:-

- Department Store
- Supermarket
- Gymnasium

Ampelite's Cool-Lite Supra translucent roofing and walling are manufactured from premium quality Australian standard heat reduction polyester resin system reinforced with Anti-static high quality glass fibre distributed evenly by using Distribution Disc Technology in compliance with Australia standard AS 4256.3 : 2006 certified by SAI Global License No. SMKB20629 specific weight 2400gsm. Top surface coated with 100 micron thick Maxil Shield providing extra protection against UV and surface erosion. Bottom surface coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
White		38%	23.5%	0.26



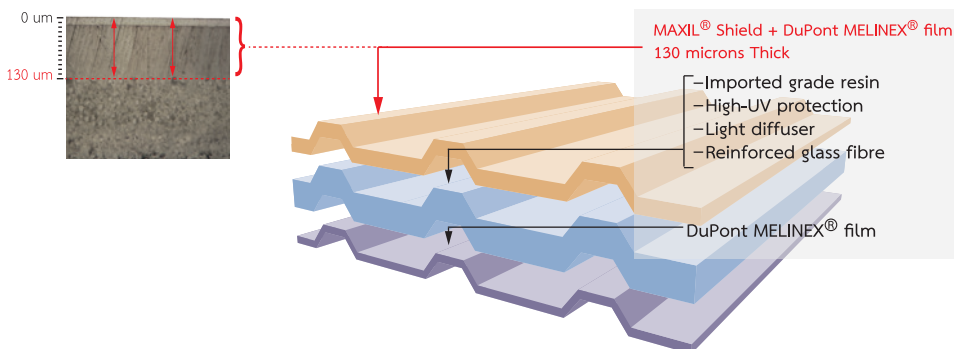
## UPRA® GLAS

Ampelite's Supraglas translucent roof and wall cladding sheet Snow Blue colors are durable, elegantly long lasting and provide uniform illuminance:-

- Air Hanger
- Factory
- Warehouse
- Walk way
- Sport Stadium

Ampelite's Supraglas translucent roofing and walling are manufactured from premium quality Australian standard polyester resin system reinforced with Anti-static high quality glass fibre distributed evenly by using Distribution Disc Technology in compliance with Australia standard AS 4256.3 : 2006 certified by SAI Global License No. SMKB20629 specific weight 3660gsm. Top surface coated with 100 micron thick Maxil Shield providing extra protection against UV and surface erosion. Bottom surface coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
Snow Blue		54%	47%	0.53



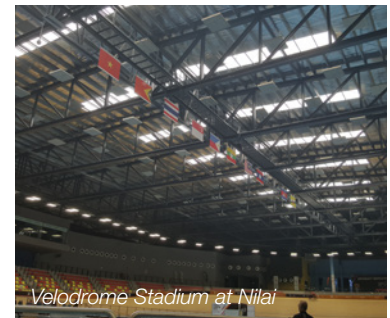
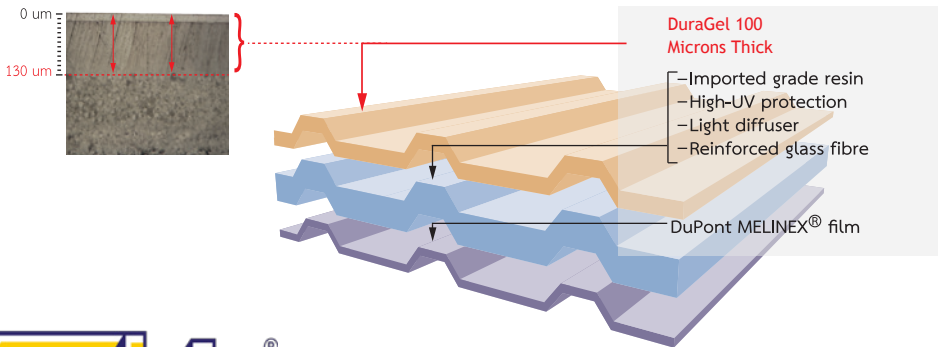
## SEALEX DuraGel®

Ampelite's Sealex Extra translucent roof and wall cladding sheet Ice Clear and Opal color add illuminance inside building and save electricity, long lasting suitable for modern building requiring evenly diffused illuminance such as:-

- Factory
- Warehouse
- Rice Mill
- Gymnasium
- General Building

Ampelite's Sealex Extra translucent roofing and walling are manufactured from high quality Australian standard polyester resin system reinforced with Anti-static high quality glass fibre distributed evenly by using Distribution Disc Technology in compliance with Australia standard AS 4256.3:2006 certified by SAI Global Licence No. SMKB20629 specific weight 2400 gsm. Top surface coated with 100 micron thick Maxil Shield providing extra protection against UV and surface erosion. Bottom surface coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
Ice Clear		70%	70%	0.79
Opal		54%	47%	0.53



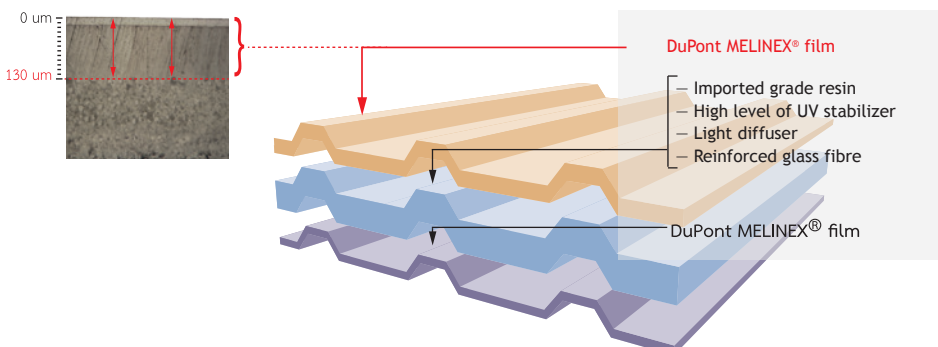
## TOPLITE®

Ampelite's Toplite translucent roof and wall cladding sheet Ice Clear and Opal colors add illuminance inside building and save electricity, suitable for modern building requiring evenly diffused illuminance such as:-

- Factory
- Warehouse

Ampelite's Toplite translucent roofing and walling are manufactured from high quality Australian standard polyester resin system reinforced with Anti-static high quality glass fibre distributed evenly by using Distribution Disc Technology in compliance with Australia standard AS 4256.3:2006 certified by SAI Global Licence No. SMKB20629 specific weight 2400 gsm. Top surface coated with DuPont Melinex film providing UV protection. Bottom surface coated with DuPont Melinex Film.

Color	Color Shading	Light Transmission	Heat Transmission	Shading Co-efficient
Ice Clear		70%	70%	0.79
Opal		54%	47%	0.53



# MATCH MOST POPULAR PROFILES

Maximum Span for a wind load of 0.5 kpa for roof design.

Profile	Series	
	2400 gsm. ( 1.5mm thk )	3050 gsm ( 1.9mm thk )
<b>Clip System Profile:</b> Lok Deck 430 / Clipdeck 430 / M-Clipp 430 / Kilplok 406 & 812 / Steelok / Speed Deck 508	2000mm	2300mm
AceCliplock 710 & 700 / CLS 705 / CL710 / CL660 / Clipfix 672~41 Clip Lock 710 / ClipDeck 680 / FormClip 710 / Grip Deck 3~Pan 680 I Clip / Hicondek 40 / Lock Deck 700 / M-Clipp 700 / One Clip 700/ R670 Seal Klip / SunClip / SengDek / Cliplock / TH~Clip Optima 730 / TH~Clip 710 TS 3 Pans Clip / Weatherclip I & II / 3 Pan Klip 660 & 700 / Winclip Clipdeck W710 / K-Lok / LokPro 670 / Unilok 672 & 700	1700mm	2000mm
Kliplok Optima 980 / Kliplok Opt 2~Pans 655	1500mm	1700mm
<b>Screw System Profile:</b> AP Rib / Astana / AceRib / AceTrim / Cool-deck / Ecodek / E~Clad / EP 762~25 Formflex R25 & R30 / Innodeck / Icon Deck/ KS 760 Deck / K~Line Ledex Flex / Metaldek / OneTrim / R760 / Skydeck II / Seal Deck / Stee Deck Sun Roof / Sundek I & II / Superspan / SungDek / Superdek / Superior Rib 762 TH~Deck / Trimdek 760 & 812 / TS Regal Rib / Windek / Weatherdek I & II Trimdek Optima / Megadek / MegaSpan / S-Deck / EP1000~35 / Kalbaus Lycorrib 28 / Monoclad / M-Clad 1015 / Top Deck / Brisdeck / Flexideck Amdex / Baseline V / I-Deck / Polydeck / Unidek / Yundek / YK Deck / YK Lok	1500mm	1700mm
High Rib 30 / I~Rib / Mega Rib 30 & 35 / TH Rib / TH Superior Rib 35	1300mm	1500mm
D'Span 700 / M-Span / Multideck 700 / R695 / Spandek 675, 690 & 700 / Spandex Spandek Optima / Sphere Span / Speed Deck / Seal Form / Weatherspan / V~Deck	1900mm	2300mm
Flat Sheet [ Std Size 1.22m (W) x 6.10m (L) ] / D~Lite Wave / Minideck	550mm	610mm
<b>Wall Cladding Profile:</b> Alrib / D~Clad / M~Clad 805 / Metal Sphere / Multiclad / Seal Klad / V~Clad / Winclad / V~Crimp		
<b>Seaming System Profile:</b> R650 I & II / Seamlock / Eurozip 65 / KZ 400 / Kalzip / Zip Deck 400 & 800		
<b>Others Profile:</b> Aludeck 6P & 7P / Comspan / EP 900~35 / HR 29 / R715 / SK Rib 38 II / R600 / Roof Deck Custom ORB 760 / Corrugated 990 / Big Corrugated 960 Louvre Type I / Louvre B200 / Louvre B300 / Louvre B400 / Louvre B400-II / Louvre B600		

\*\* Maximum Purlin Spanning for series 3660gsm up to 4880gsm dependent upon specification.

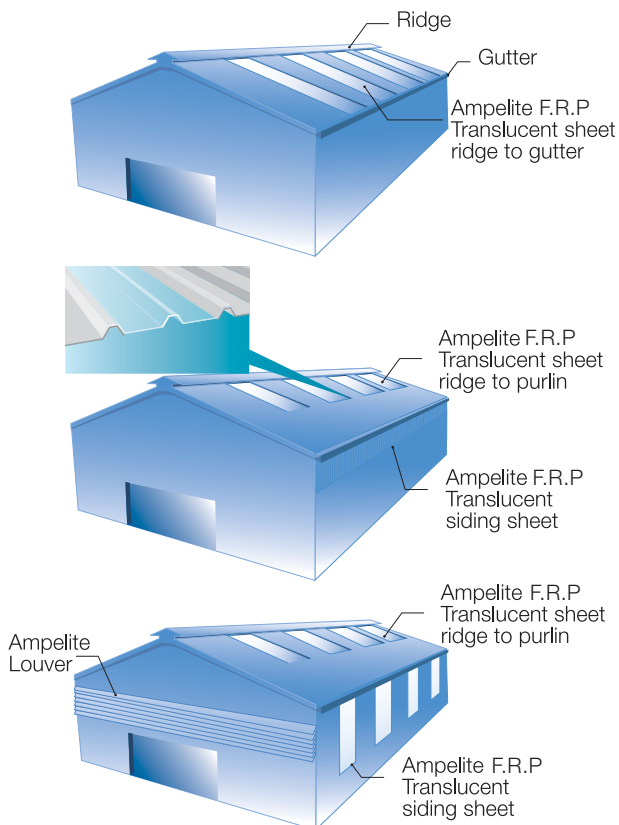
\*\* Others new profile available upon request.

In reference of column expansion and thermal movement of the roof structure Ampelite recommended that the weight of the fibreglass sheeting should be in accordance to the maximum allowable span of the purlin spacing. This is to provide the necessary strength needed to withstand the design purposes and also to compliment the metal roof and the supporting structure of the building. Sheeting shall be installed in accordance with Ampelite fixing instructions. General installation requirements and design of roofing systems AS 2424,91.

# DESIGN CONSIDERATION TIP



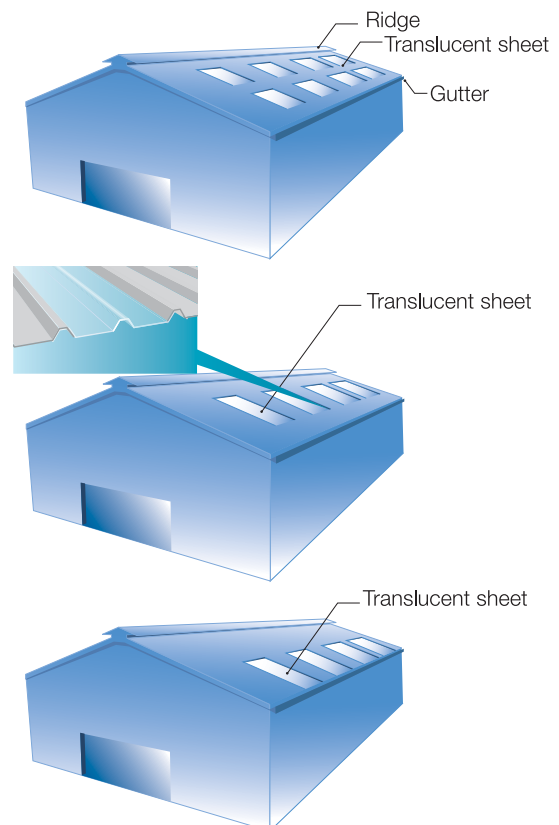
## Recommended



- 1 It is recommended to start fibreglass sheeting installation from the ridge capping will help prevent leak.
- 2 Fibreglass translucent sheeting must be placed above metal roof due to its thermal expansion is higher than metal sheet's thermal expansion while its strength is lower.
- 3 Installing translucent sheets on sides of building will add illuminance.
- 4 Generally recommended quantity fibreglass translucent sheeting is not less than 10% of total roof area.



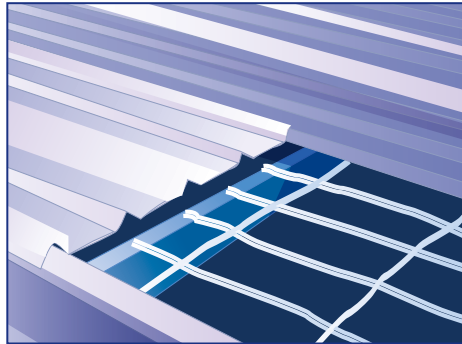
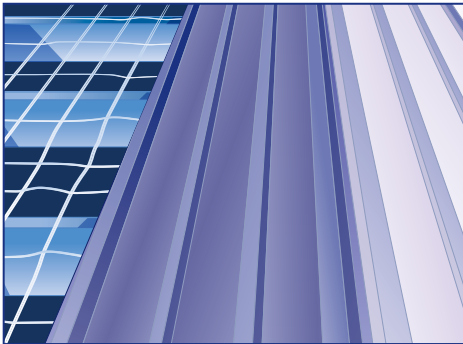
## Not Recommended



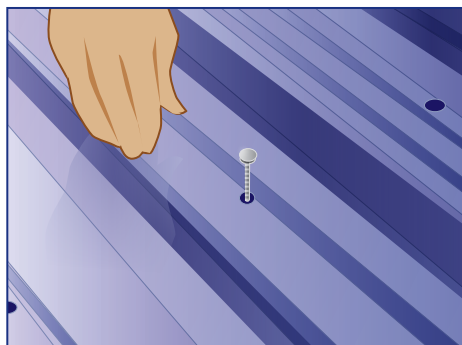
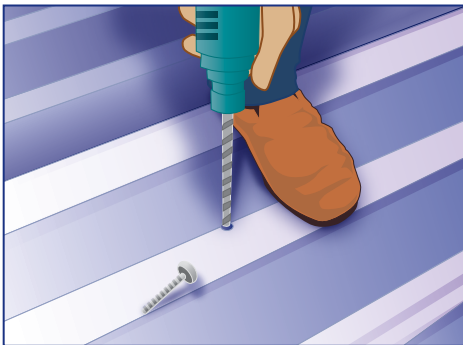
- 1 Good fibreglass translucent sheet must diffuse light evenly instead of split themselves to an area where light required.
- 2 In case of FRP sheets splitting is required, they must be placed above metal sheet to prevent any FRP damaging.
- 3 In case "not recommended" installation is unavoidable, 2 strip of lap seal tapear, 1 layer of RTV non-hardening neutral silicone in between lapping.

(Applicable for metal screw system profile only.)

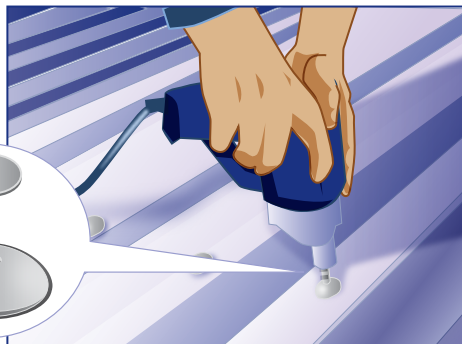
# INSTALLATION GUIDE



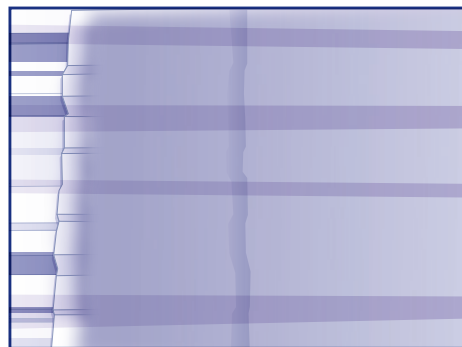
- 1 Start metal roof installation first and leave opening for fibreglass sheets. Put the fibreglass sheets in place with both sides on the metal roof and screw.



- 2 Oversized holes must be pre-drilled. The basic calculation is 0.4 multiply by meter length of sheet plus shank diameter of screw. Example: 10m Sheet =  $(0.4 \times 10) + 4$  mm. (screw) = 8mm. pre-drilled hole.



- 3 The fibreglass sheet must be screwed on every rib Class 3 wing screw c/w EPDM washer. The fixer must ensure that the fixing are located in the center of the oversize hole.



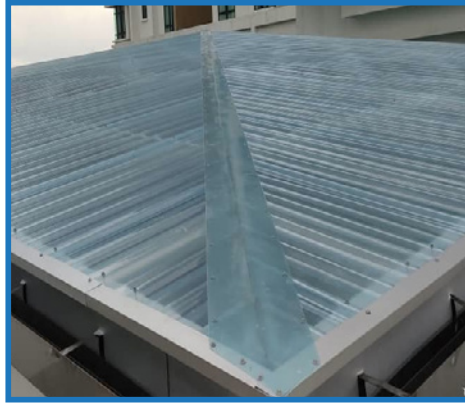
- 4 Minimum 300mm overall end lapping on top of purlin support with 2 strips of lap seal tape or 1 layer of RTV Non hardening neutral silicone in between lapping along the profile width.

Remark: 1. Minimum 30 cm for roof slope within 3-5 degree and greatest / longer for roof slope less than 3°.

2. Appropriate sheet length < 12m to allow for thermal expansion.

# PROJECT REFERENCE

Factory, Warehouse, Stadium, University, Walk Way, Shipyard & Fertilizer Plant



Copyright, Jan 2021. The data in this publication supersedes previous issue.

**AMPELITE (MALAYSIA) SDN BHD** [ 618830-X ]

No. 14, Jalan 13/9, Taman Shamelin Perkasa, 56100 Cheras, Kuala Lumpur, Malaysia.

Tel : 603 - 9200 3257 Fax : 603 - 9200 8290

Website : [www.ampelite.com.au](http://www.ampelite.com.au) / [www.ampelite.com.my](http://www.ampelite.com.my)

Email : [cs@ampelite.com.my](mailto:cs@ampelite.com.my)