



LYSAGHT® SPANDEK®

Trapezoidal Steel Cladding



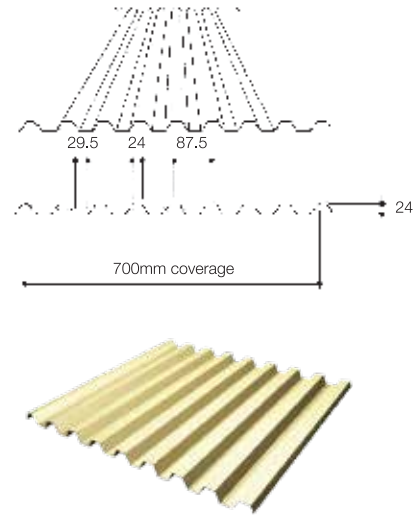
PRODUCT DESCRIPTION

Contemporary looks with a stronger, bolder, and modern corrugated looks, LYSAGHT® SPANDEK® profile is a tough, symmetrical trapezoidal ribbed roofing and wall cladding profile. The profile is roll-formed with precision from genuine high tensile ZINCALUME® G550 steel. It is also available in a range of attractive and durable COLORBOND® steel colours*.

This profile combines strength with lightness, rigidity and economy. Designed to perform at a minimum recommended roof pitch of 3° (1 in 20), LYSAGHT® SPANDEK® profile capitalizes on buildings that require long spans as it permits wider purlin spacings and utilises fewer

fasteners. Its rigid trapezoidal ribs make it an excellent choice among designers for contemporary roof and wall cladding designs. With the right creative approach, LYSAGHT® SPANDEK® profile proved equally popular for homes and public buildings underlining its versatility and pleasing appearance.

The performance of LYSAGHT® SPANDEK® profile is tested and proven by NATA registered R&D laboratory at BlueScope Lysaght Technology Centre, Sydney, Australia and CSIRO Australia (Commonwealth Scientific and Industrial Research Organisation).



PRODUCT BENEFITS

Like other products in the LYSAGHT® roofing and walling solutions range, LYSAGHT® SPANDEK® profile presents a list of long term benefits and values to users :

- Simple, low cost fixing
- Excellent profile for roofing, walling and fencing applications
- Trapezoidal ribs can run either vertically or horizontally
- Aesthetically pleasing and suits contemporary/modern designs
- Tested and proven by NATA registered

laboratory in BlueScope Lysaght Technology Centre in Chester Hill, Sydney, Australia Tested by CSIRO Australia (Commonwealth Scientific and Industrial Research Organisation)

- Conforms to International Building Codes and Standards.
- Manufactured under strict processes governed by ISO9001:2000 Quality Management Systems and ISO14001 Environmental Management Systems
- Excellent wind resistance

- Exceptionally strong and light weight
- Superior against severe rainfall intensity
- First class resistance against corrosion, discolouration and tropical dirt staining
- Certified Class "O" by Malaysian Fire & Rescue Department
- Requires no or minimal maintenance
- All-weather performance
- Genuine material warranty
- Genuine product certification

PHYSICAL PROPERTIES

	STANDARD	NON-STANDARD*
Base Metal Thickness (BMT)	0.42mm	0.48mm
Total Coated Thickness (TCT)	0.47mm*	0.53mm*
Effective Cover Width	700mm	700mm
Rib Depth	24mm	24mm
Minimum Recommended Roof Pitch / Slope		
Sheet length without end lap		3° (1 in 20)
Sheet length with end lap		5° (1 in 12)
Grade of Steel (mPa)	G550 (550N/mm ² yield strength)	
Tolerances	Length +0, -15mm Width ± 2mm	
Packing	In strapped bundles of 1 tonne maximum mass	
Custom Cut Lengths	Any measurement to a maximum transportable length	
Coating Class (min.)	ZINCALUME® AZ150 steel (150g/m ²)	

Notes :

* Total Coated Thickness (TCT) for Clean COLORBOND® ULTRA steel is 0.48mm (Standard) and 0.54mm (Non-Standard).

For non-standard orders, a minimum order quantity and lead time applicable. Please refer to BlueScope Lysaght Singapore for more information.



Church of Saints Peter and Paul

Thickness for LYSAGHT® SPANDEK® Profile (Standard)

Type of Finishing	BMT (mm)	Top Coat (mm)				Reverse Coat (mm)				TCT (mm)	Total Nominal Coated Thickness Including Paint (mm)
		AZ150	AZ200	Primer	Finish	AZ150	AZ200	Primer	Finish		
ZINCALUME® steel	0.42	0.025	-	-	-	0.025	-	-	-	0.47	-
Clean COLORBOND® XRW steel	0.42	0.025	-	0.005	0.020	0.025	-	0.005	0.005	0.47	0.505
Clean COLORBOND® XPD steel	0.42	0.025	-	0.005	0.020	0.025	-	0.005	0.005	0.47	0.505
Clean COLORBOND® XPD Pearlescent steel	0.42	0.025	-	0.005	0.020	0.025	-	0.005	0.005	0.47	0.505
Clean COLORBOND® ULTRA steel	0.42	-	0.030	0.005	0.020	-	0.030	0.005	0.010	0.48	0.520

BMT: Base Metal Thickness, TCT: Total Coated Thickness

Mass & Coverage

Finishes	Mass per Unit Area (kg/m ²)		Mass per Unit Length (kg/m)		Coverage (m ² /tonne)	
	Standard	Non-standard	Standard	Non-standard	Standard	Non-standard
ZINCALUME® steel (0.47mm)	4.656	5.288	3.259	3.702	214.791	189.101
Clean COLORBOND® XRW steel (0.505mm)	4.736	5.389	3.315	3.758	211.137	186.263
Clean COLORBOND® XPD steel (0.505mm)	4.736	5.389	3.315	3.758	211.137	186.263
Clean COLORBOND® XPD Pearlescent steel (0.505mm)	4.736	5.389	3.315	3.758	211.137	186.263
Clean COLORBOND® ULTRA steel (0.520mm)	4.803	5.436	3.362	3.805	208.186	183.963

DESIGN CRITERIA

SUPPORT SPACINGS NON-CYCLONIC AREAS

The maximum support spacings shown in Table 1 are based on testing in accordance with AS1562-1991 *“Design and Installation of Sheet Roof and Wall Cladding-Part 1: Metal”* and AS4040.1-1992 *“Methods of Testing Sheet Roof and Cladding Method*

1: Resistance to Concentrated Loads”.

These roof support spacings are the maximum recommended for adequate performance of the roof cladding under foot traffic loading. The maximum wall spacings are based on wind pressure calculation refer to AS 1170.2:2011. The pressure considered is based on buildings up to 10m high in Region B, Terrain Category 3,

$M_s = 0.85$, $M_j = 1.0$ with the assumption of $C_{pi} = +0.20$, $C_{pe} = -0.65$, $K_1 = 2.0$.

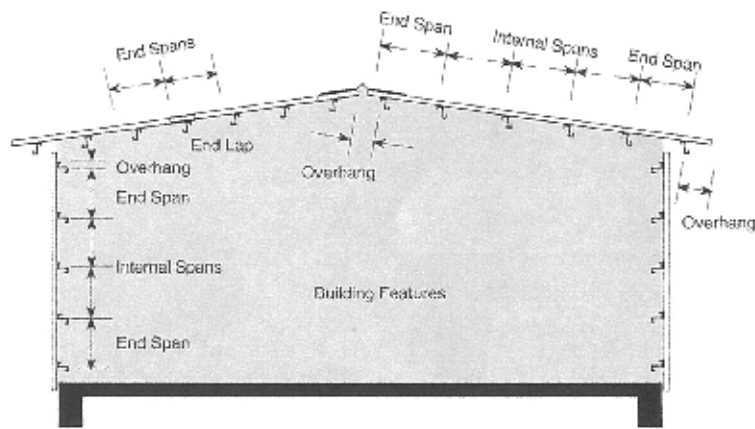
These spacings may be reduced by the Serviceability and Strength Limit States for the particular project under consideration.

TABLE 1: LYSAGHT® SPANDEK® Profile Maximum Allowable Support Spacing - Non-Cyclonic Areas

	STANDARD (0.47MM TCT)	NON-STANDARD (0.53mm TCT)
ROOF APPLICATION		
Single Span	1300mm	2000mm
End Span	1800mm	2200mm
Internal Span	2400mm	3000mm
Unstiffened Overhang	300mm	400mm
Stiffened Overhang	600mm	700mm
WALL APPLICATION		
Single Span	2500mm	3000mm
End Span	3000mm	3000mm
Internal Span	3300mm	3300mm
Overhang	300mm	400mm

* A minimal order quantity is required for non-standard orders. Please contact BlueScope Lysaght Singapore for more information.

** Span is subject to designed live loads and verifications.



LIMIT STATE WIND PRESSURES (NON-CYCLONIC AREAS)

The wind pressure capacities area based on tests conducted at NATA registered testing laboratory at BlueScope Lysaght Technology Centre in Sydney, Australia. Testing was conducted in accordance with AS1562.1-1992 **“Design and Installation of Sheet Roof and Wall Cladding”**, and AS4040.2-1992

“Resistance to Wind Pressure for Non-Cyclonic Regions”. The table for wind pressure capacities below provides pressure versus span graphs for Serviceability and Strength Limit State Design. Serviceability Limit State is based on a deflection limit of $(\text{span}/120) + (P/30)$, where P is the maximum fastener pitch. The pressure capacities for Strength Limit State have been determined by testing the cladding to failure

(ultimate capacity). These pressures are applicable when the cladding is fixed to minimum material thickness of 1.0mm. To obtain the design capacity of the sheeting, a capacity reduction factor of 0.90 should be applied. A non-cyclonic area is defined as one in which a tropical cyclone is unlikely to occur in accordance with AS1170.2-1989 **“SAA Loading Code, Part 2: Wind Loads”**.



3M Innovation Centre



Seng Kang Sports Center

TABLE 2: LYSAGHT® SPANDEK® Profile Wind Capacities (kPa) - Limit State Format (Non-Cyclonic)

Type of Span	Fasteners per sheet per support	Limit State	Span (mm)								
[A] Standard (Based Metal Thickness = 0.42mm)											
Single	3	Serviceability	900	1200	1500	1800	2100	2400	2700	3000	3300
		Strength	2.04	1.64	1.27	0.96	0.72	0.54	0.41	0.30	-
End	4	Serviceability	4.24	3.07	2.02	1.20	0.68	0.42	0.33	0.30	-
		Strength	10.25	8.35	6.60	5.20	4.25	3.70	3.40	3.20	-
Internal	3	Serviceability	2.05	1.82	1.61	1.40	1.20	1.02	0.83	0.65	-
		Strength	5.85	4.40	3.20	2.35	1.85	1.55	1.45	1.40	-
End	4	Serviceability	3.75	3.19	2.67	2.20	1.78	1.40	1.05	0.72	-
		Strength	6.90	5.65	4.55	3.75	3.15	2.70	2.40	2.20	-
Internal	3	Serviceability	1.96	1.81	1.66	1.52	1.37	1.23	1.08	0.93	0.79
		Strength	6.90	5.80	4.70	3.70	2.85	2.25	1.80	1.60	1.50
End	4	Serviceability	4.74	4.05	3.38	2.75	2.20	1.73	1.36	1.08	0.87
		Strength	8.55	6.80	5.40	4.35	3.55	2.95	2.55	2.30	2.20
[B] Non-Standard (Based Metal Thickness = 0.48mm)											
Single	3	Serviceability	2.50	2.08	1.69	1.34	1.04	0.79	0.58	0.38	-
		Strength	9.00	7.55	6.25	5.10	4.25	3.60	3.10	2.70	-
End	4	Serviceability	5.07	3.53	2.35	1.48	1.00	0.70	0.52	0.40	-
		Strength	12.00	10.35	8.30	6.65	5.40	4.60	4.00	3.60	-
Internal	3	Serviceability	3.05	2.58	2.15	1.78	1.47	1.20	0.96	0.75	-
		Strength	7.55	5.65	4.05	3.35	2.85	2.50	2.25	2.10	-
End	4	Serviceability	5.34	4.37	3.50	2.76	2.16	1.65	1.22	0.83	-
		Strength	9.75	7.65	5.85	4.50	3.70	3.20	2.95	2.85	-
Internal	3	Serviceability	2.72	2.40	2.09	1.79	1.53	1.30	1.10	0.95	0.82
		Strength	9.00	7.05	5.50	4.30	3.40	2.75	2.35	2.10	2.00
End	4	Serviceability	6.50	5.44	4.43	3.49	2.66	1.99	1.49	1.14	0.90
		Strength	11.40	9.70	8.05	6.55	5.25	4.20	3.50	3.05	2.80

*A capacity reduction factor of $\phi = 0.9$ has been applied to strength capacities. Supports must be not less than 1mm BMT.

** Any support spacing greater than the recommended data as shown in the maximum support spacing table, no foot-traffic load is allowed.

CURVATURE WITH LYSAGHT® SPANDEK® PROFILE

[A] SPRUNG CURVED RIDGE

One excellent method of sheeting low slope gable roofs is to run continuous lengths of roof sheeting from eave to eave, across the full width of the roof, allowing the roofing sheets to spring or naturally curve between ridge purlins that are spaced widely apart. This method provides a particularly neat and attractive roof whilst eliminating the ridge capping. Nevertheless, using LYSAGHT® SPANDEK® profile for construction such as this requires certain precautions to be observed (refer to Table 3).

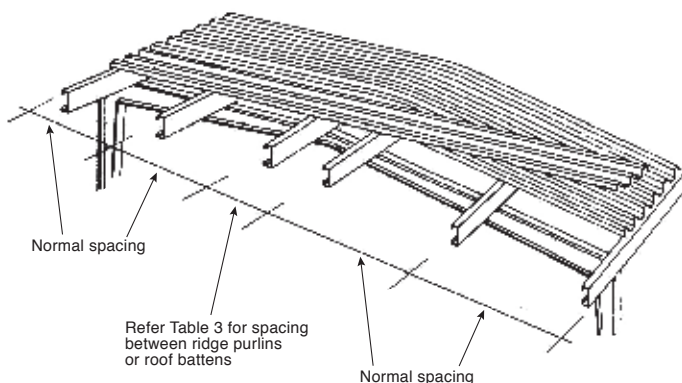


TABLE 3: Minimum Ridge Purlin Spacing for Sprung Curved Ridge LYSAGHT® SPANDEK® Profile

Roof Pitch	Standard (0.42mm BMT)	Non Standard (0.48mm BMT)
3° (1 in 20)	1400mm	1500mm
4° (1 in 15)	1500mm	1600mm
5° (1 in 12)	NOT RECOMMENDED	1700mm

It should be noted that side laps should be sealed for the length of the curvature (i.e. between the two centre purlins) with BlueScope Lysaght recommended sealants. Each sheet should be first fastened to one side of the roof and then pulled down and fastened to the slope on the other side of the ridge curve. Alternative sheets should be laid from opposite sides of the roof. It should also be noted that over the ridge purlins or battens, very slight crease marks may appear in the trays or valleys of the curved sheeting when subjected to foot traffic.

[B] SPRUNG ARCHED / CONVEX ROOF

LYSAGHT® SPANDEK® profile sheeting can also be sprung curved over an arched roof, provided the radius of the arch is not less than the minimum listed in Table 4.

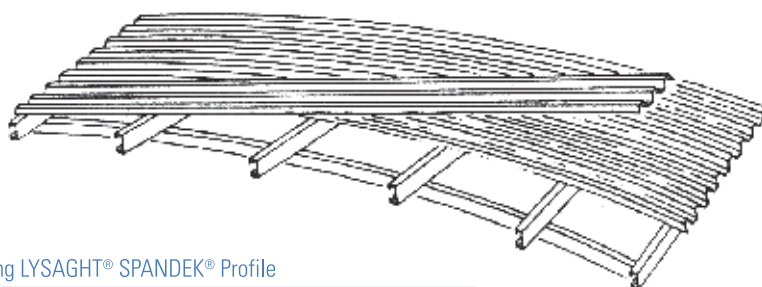


TABLE 4: Recommended Radius of Convex Sprung Curving LYSAGHT® SPANDEK® Profile

	Min Radius	Purlin Spacing at Min Radius #	Max Radius*
LYSAGHT® SPANDEK® Profile (Standard) 0.42mm BMT	20000mm	1200mm	60000mm
LYSAGHT® SPANDEK® Profile (Non-standard) 0.48mm BMT	20000mm	1400mm	60000mm

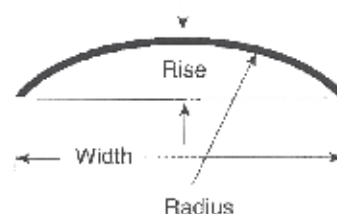
For radius of curvature greater than the recommended minimum, the purlin spacing must not exceed 2400mm for LYSAGHT® SPANDEK® Profile 0.42mm BMT and 3000mm for LYSAGHT® SPANDEK® Profile 0.48mm BMT.

* Maximum recommended radius to provide sufficient drainage near crest of curvature.

Please note that side laps should be sealed with BlueScope Lysaght recommended sealants over the crest of the arch where the slope is less than the recommended minimum for that sheet profile. If end laps are necessary, they should not be located at or near the crest of the arch and each sheet length must span at least three purlin spacings. The top face of all purlins must accurately follow and be tangential on the arch curvature. Each alternate sheet should be laid

from opposite sides of the roof. It should also be noted that very slight crease marks may appear in the trays or valleys over the supports, when curved sheeting is subjected to foot traffic.

From the overall width and required rise of an arched roof, the radius of curvature can be calculated from the formula below :-



$$\text{Radius} = \frac{\text{Width}^2 + 4 (\text{Rise})^2}{8 \text{ Rise}}$$

[C] SPRUNG CONCAVE ROOF

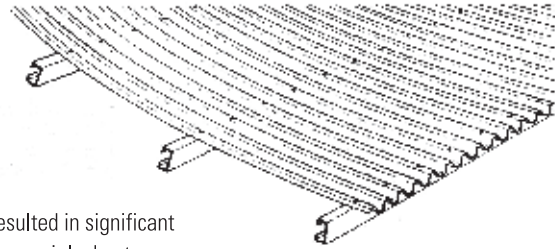
LYSAGHT® SPANDEK® Profile can also be sprung curved to the minimum radius shown in Table 5 for concave roof applications.

TABLE 5: Recommended Radius and Purlin Spacing for Convex Sprung Curving LYSAGHT® SPANDEK® Profile

	Min Radius	Purlin Spacing at Min Radius #
LYSAGHT® SPANDEK® Profile (Standard) 0.42mm BMT	18000mm	1200mm
LYSAGHT® SPANDEK® Profile (Non-standard) 0.48mm BMT	20000mm	1400mm

Note : For radius of curvature greater than the recommended minimum, the purlin spacing can be increased. However, the spacing must not exceed 2400mm for LYSAGHT® SPANDEK® Profile 0.42mm BMT and 3000mm for LYSAGHT® SPANDEK® Profile 0.48mm BMT.

LYSAGHT® SPANDEK® Profile sprung curved on concave roof application. At the minimum radius, purlin spacing must not exceed the recommended radius shown in Table 5. Roof slope at the lower end of the sheeting must not be less than 3°.

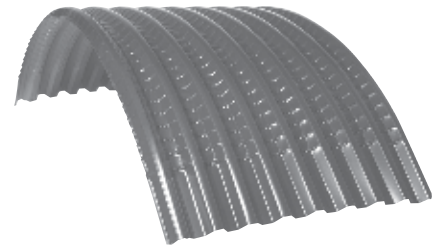


[D] CRIMP CURVED CONVEX ROOF

Crimp curved LYSAGHT® SPANDEK® steel cladding is designed to provide versatility and creativity to bring new and refreshing designs to commercial, industrial and domestic buildings. The combination of curves and contours in convex shapes with flats and angles in LYSAGHT® SPANDEK® profile have produced many aesthetically pleasing buildings.

This design freedom has resulted in significant cost savings in construction, mainly due to :-

- Less supporting framework required for fascias, parapets and roofs.
- Simplified and reduced work involved in installation of fascia cladding
- Reduction or elimination of many flashings and cappings.
- Less cladding material required to cover a given curve.



SUPPORT SPACINGS FOR CRIMP CURVED LYSAGHT® SPANDEK® PROFILE (NON-CYCLONIC AREAS)

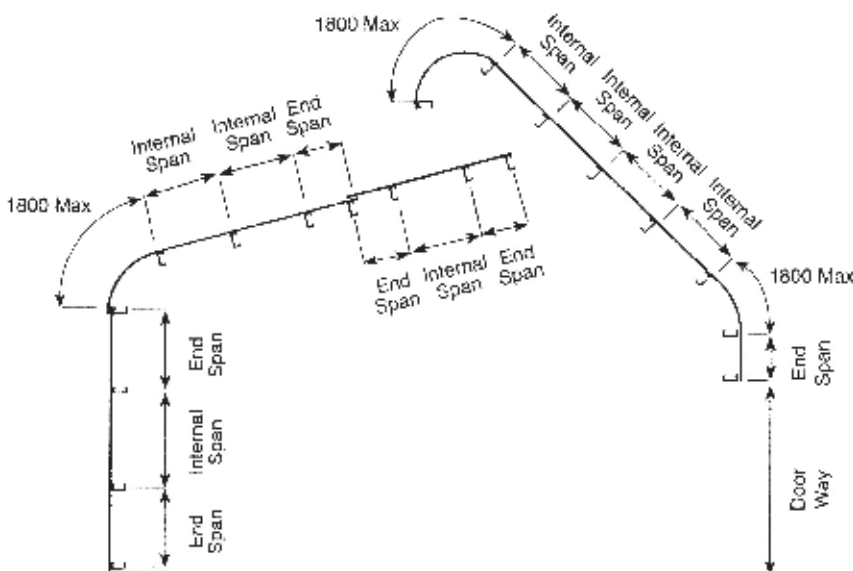
Straight Portion of Crimp Curved LYSAGHT® SPANDEK® Profile :

- Maximum allowable spacings for the straight portion of Crimp Curved LYSAGHT® SPANDEK® profile should follow the recommended values in Table 1.
- End spans refer to the spacing between the first and second supports from any free end of a sheet, except where that end of the sheet is crimp curved.
- The spacing between supports at either side of an end lap should be as recommended for end spans (refer to Table 1).

Crimp Curved Portion of Crimp Curved LYSAGHT® SPANDEK® Profile

This will depend on the radius of curvature but the following guidelines are recommended:-

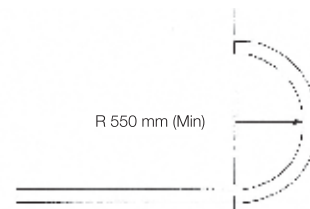
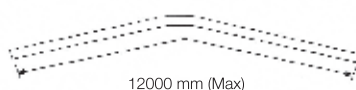
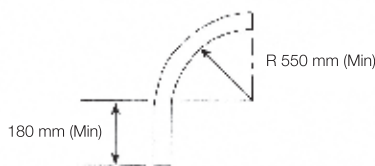
- For sheets curved to a radius of curvature not more than 3000mm, supports should be placed at centres not greater than 1800mm.
- Where a curve of small included angle occurs (up to approximately 15°, for example, at a ridge), support spacing should not exceed 1200mm.



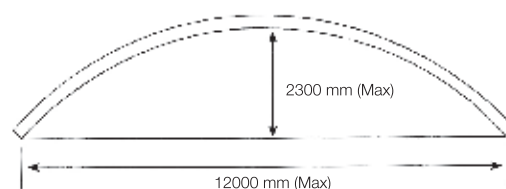
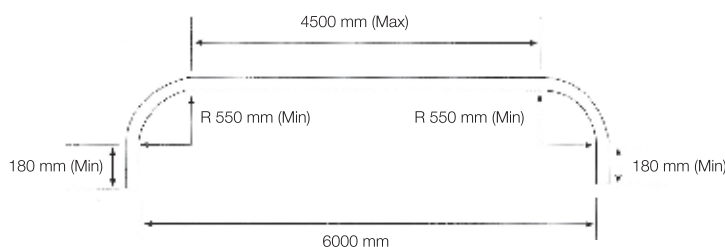
SPAN TERMINOLOGY FOR CRIMP CURVED LYSAGHT® SPANDEK® PROFILE

REQUIREMENTS OF CRIMP CURVED LYSAGHT® SPANDEK® PROFILE

- Minimum radius of curvature for convex is 550mm to underside or pan of sheet, minimum straight length of sheet at one end of a curve is 180mm.
- Maximum length of sheet that can be crimp curved for ridge application is approximately 12,000mm. The curve must be convex only. Concave Crimp Curved LYSAGHT® SPANDEK® Profile is not available.
- The sheet can be crimp curved to three quarters of a full circle but to facilitate side lapping, semi-circle maximum is recommended.



- When both ends are crimp curved, the maximum recommended straight distance between the two curves should be 4500mm
- For length exceeding 12000mm, please consult BlueScope Lysaght Singapore.
- For easy transportation and maximum protection for the crimp curved sheets, the maximum height and length of the sheeting should be 2300mm and 12,000mm respectively.



**Alternatively, for crimp-less profile, please ask for our LYSAGHT® SELECT SEAM® Profile or LYSAGHT® LOCKED SEAM® Profile

RAINWATER RUN-OFF FOR LYSAGHT® SPANDEK® PROFILE

The drainage of run-off capacity of roof sheeting is another limitation on the total length of number of sheet runs that must be considered in roof design and construction. As a guide, Table 6 lists the maximum recommended length of roof run for LYSAGHT® SPANDEK® profile at

roof slopes and rainfall intensities. These are based on CSIRO Australia (Commonwealth Scientific and Industrial Research Organisation) and BlueScope Lysaght Technology Centre's calculation of the behaviour of LYSAGHT® roofing profile under peak rainfall conditions.

The roof run is the total length of roof sheeting draining rainwater in one direction including any end laps, expansion joints or steps that may be present in the roof. Careful considerations should be given to rain water diverted around roof penetrations.

TABLE 6: Maximum Roof Run (in metres) for roof slopes and rainfall intensities

Rainfall Intensity (mm/hour)	Roof Slope			
	1 in 20 (3°)	1 in 12 (5°)	1 in 7.5 (7.5°)	1 in 6 (10°)
100	111	133	154	173
150	74	89	103	115
200	55	67	77	86
250	44	53	62	69
300	37	44	51	58
400	28	33	39	43
500	22	27	31	35

FASTENING METHOD

Pierce Fixing Concept

Pierce-fixing is the method of fixing sheets using fasteners which pass through the sheet. This method is different from concealed-fixing.

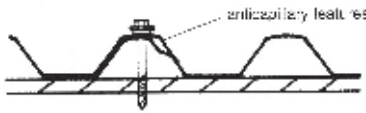
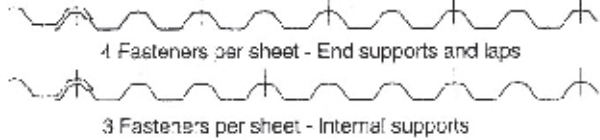
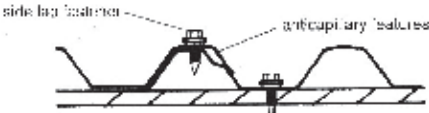
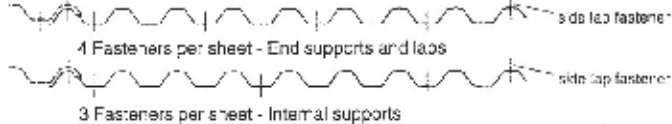
or in the valleys. LYSAGHT® SPANDEK® steel roof cladding must be crest fixed to support. However, wall cladding application can be either crest or valley fixed.

ensure optimum performance of your COLORBOND® or ZINCALUME® steel cladding. Fasteners used must have a coating system to meet AS3566 Class 3 or AS3566 Class 4.

The screws can be placed through the crests

The selection of appropriate fasteners will

Fastening to Supports

Crest Fixing To Steel For Roofing And Walling	Crest Fastener Location (Normal Application in Non-Cyclonic Areas)
 <p>anticipatory sealant</p>	 <p>4 Fasteners per sheet - End supports and laps 3 Fasteners per sheet - Internal supports</p>
Valley Fixing To Steel For Walling Only	Valley Fastener Location (Normal Application in Non-Cyclonic Areas)
 <p>side lap fastener anticipatory sealant</p>	 <p>4 Fasteners per sheet - End supports and laps 3 Fasteners per sheet - Internal supports side lap fastener</p>

Recommended Fasteners for Walling Applications

No. 12-14 x 20mm : Hex head self-drilling and tapping screw with bonded washer (for application directly to support, without insulation)

Recommended Fasteners for Roofing Applications

Non-Cyclonic Region		
	Directly to Support	With Insulation Blanket*
Steel Support		
Thickness Up to 4.5mm	No. 12-14 x 55mm Hex head self-drilling and tapping screw with bonded washer	Increase to min. 65mm long screw
Exceed 4.5mm	Tek 5 No. 12-14 x 50mm Hex head self-drilling and tapping screw with bonded washer	Tek 5 No. 12x24 x 65mm Hex head self-drilling and tapping screw with bonded washer
Timber Support		
Grade Hardwood	No. 12-11 x 65mm Hex head Type 17 self-drilling screw with bonded washer	No. 12-11 x 75mm Hex head Type 17 self-drilling screw with bonded washer
Softwood	No. 12-11 x 75mm Hex head Type 17 self-drilling screw with bonded washer	As above

Identification of Fastener

The format of the number code is:

12 - 14 x 55

Screw gauge
(Thread
outside
diameter)

Thread pitch
(Thread
per pitch)

Overall Length
of screw
measured from
under the
head (mm)



NOISE AND HEAT CONTROL

Rain Noise

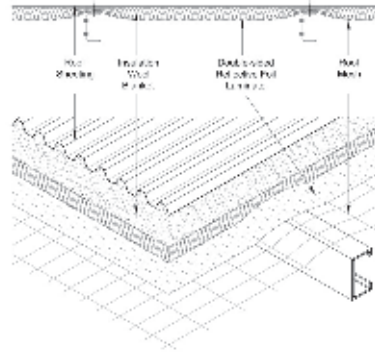
To reduce rain noise on metal roof sheeting, a self-adhesive bitumen felt is placed underneath the roof sheeting to dampen the rain induced vibration at point of impact. This is followed by installation of a solid roof substrate such as LYSAGHT® SPANDEK® substrate or LYSAGHT® TRIMDEK® substrate. An insulation mineral wool blanket will then be placed in between the metal roof substrate and a layer of double-sided aluminium foil. Noise will be further reduced by the transmission loss through the mineral wool blanket to achieve a significant marked noise reduction.

Note : When using an insulation mineral wool

blanket, care should be taken to ensure that it is fully protected from moisture.

Heat Control

The effective method to control heat is to lay



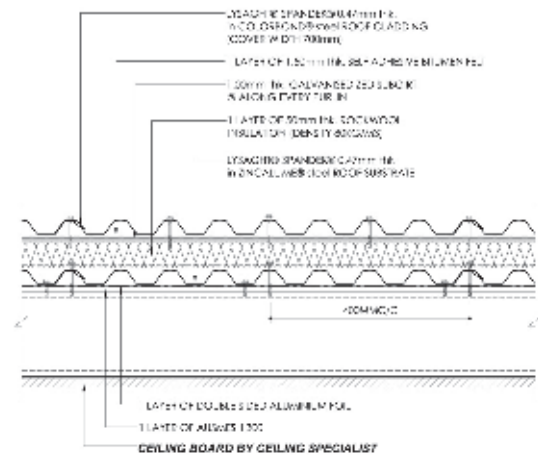
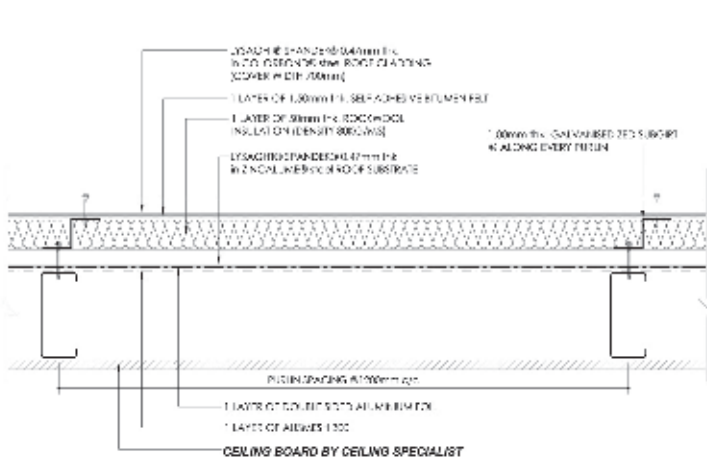
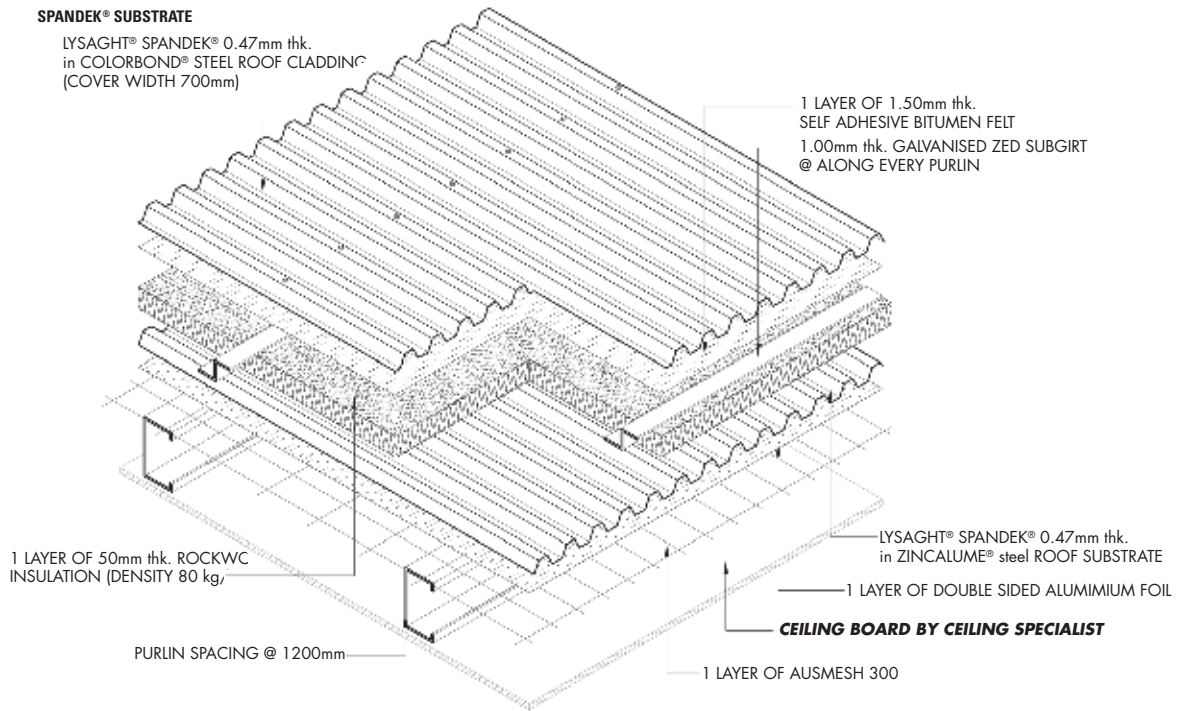
the reflective foil laminate over the supports before laying the sheeting or insulation blanket. The insulation blanket over the foil laminate in conjunction with vapour barrier allows condensation control. An insulation blanket is often provided to improve heat insulation to the overall roof system.

Acoustic Roof System

As a result of laboratory measurement of airborne sound transmission loss of BlueScope Lysaght Acoustic Roof System, PSB Corporation (Testing Group) has rated the roof system tested on October 10 2002, as having a Sound Transmission Class 51 (STC51). The test was conducted in accordance with ASTM E90-97.

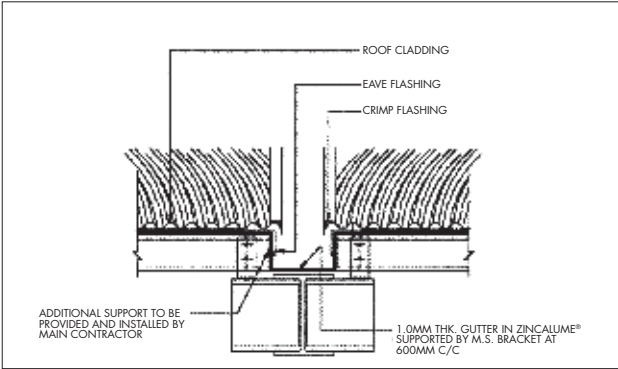
SPANDEK® SUBSTRATE

LYSAGHT® SPANDEK® 0.47mm thk. in COLORBOND® STEEL ROOF CLADDING (COVER WIDTH 700mm)

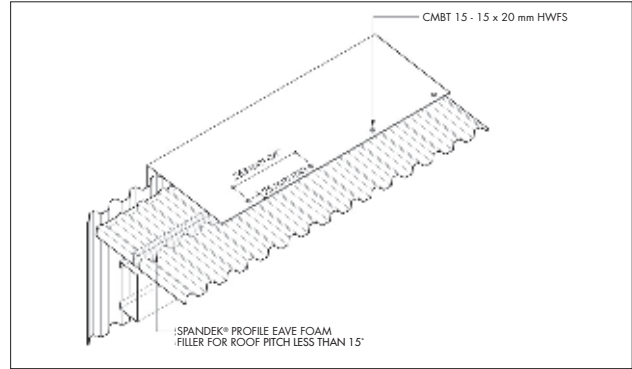


SUGGESTED DETAILS

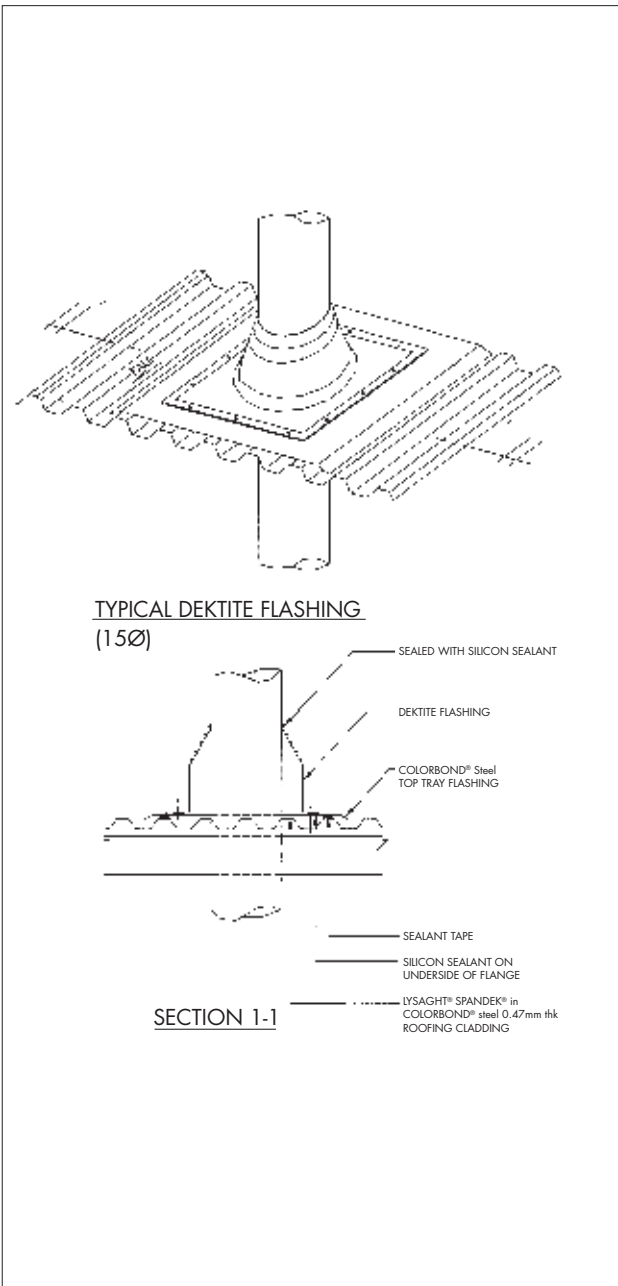
Valley Gutter / Crimp Flashings / Eaves Flashings



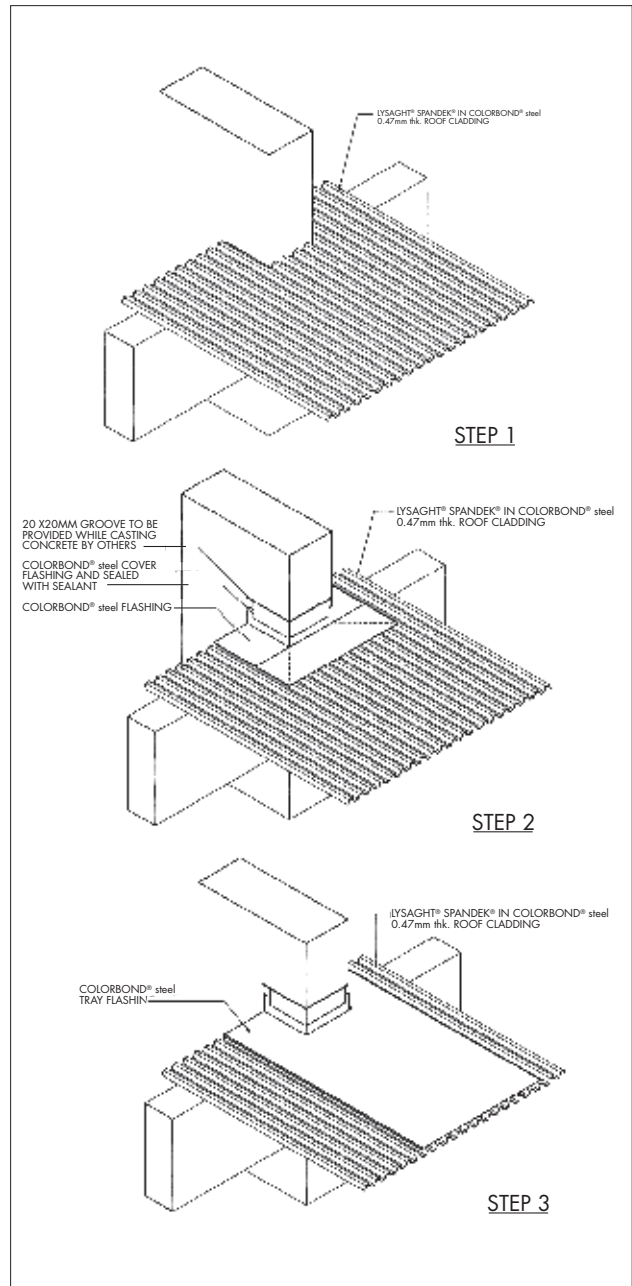
Fascia Cappings



RC Column & Metal Roof Integration



Roof Penetration



SUGGESTED SPECIFICATIONS FOR EXTREME ENVIRONMENTS

[A] MODERATE MARINE ENVIRONMENT

Suggested Specifications for LYSAGHT® SPANDEK®	
Total Coated Thickness (TCT)	0.47mm TCT
BlueScope Steel Proprietary Pre-painted Steel System	COLORBOND® steel or Clean COLORBOND® XPD steel* or Clean COLORBOND® XPD Pearlescent steel*
Steel Grade	G550 (Minimum yield strength of 550 mPa)
Minimum Coating Mass of ZINCALUME® steel	AZ150 (150g/m ²)

[B] SEVERE MARINE ENVIRONMENT

Suggested Specifications for LYSAGHT® SPANDEK®	
Total Coated Thickness (TCT)	0.48mm TCT
BlueScope Steel Proprietary Pre-painted Steel System	Clean COLORBOND® ULTRA steel*
Steel Grade	G550 (Minimum yield strength of 550 mPa)
Minimum Coating Mass of ZINCALUME® steel	AZ200 (200g/m ²)

*Minimum order quantity is required. Please contact our Sales Representative or Customer Service for more information.

SIMPLE INSTALLATION INSTRUCTIONS FOR LYSAGHT® SPANDEK® CLADDING



REMINDER!

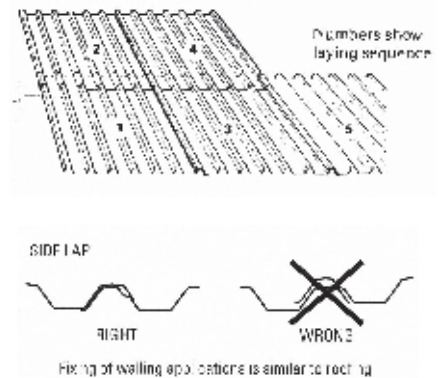
If you are working at height 2 metres and above, you must wear a safety harness with a shock absorbing twin tail lanyard attached to either a life line or an anchorage point.

In addition, the use of Ausmesh 300 is recommended to assist in the prevention of falls during roof sheet laying. Contact BlueScope Lysaght Singapore for more information on Ausmesh 300.

- When lifting roofing sheets onto roof frames for installation, make sure all male and/or female ribs face the same direction. If not, sheets will have to be turned end-for-end during fixing.
- The first sheet of LYSAGHT® SPANDEK® profile must be positioned with care before fastening with hex head self-tapping screws to ensure that it lies straight and square.
- When the first sheet of LYSAGHT® SPANDEK® profile is fastened to position, a string line can be stretched across the lower end of the roof alignment. The line will then be used as a guide for the subsequent installation of roof panels.
- Position and fasten the next roofing sheet to each support of the male rib of the installed sheet. Place the second sheet over the second

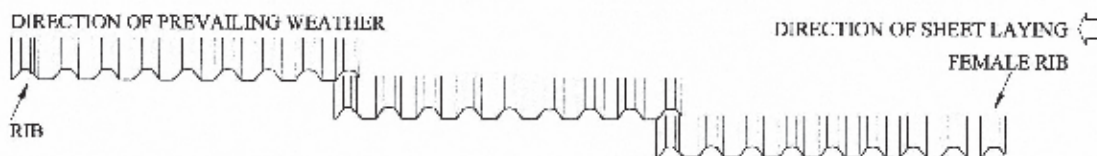
run of the roofing sheets and fastened the sheets together before proceeding to the next sheet.

- Make sure the side lapping is installed correctly. The side rib with the longitudinal anticapillary flute (male rib) is supposed to be covered by the side rib without a longitudinal flute (female rib).
- Each sheet should be fully fastened before proceeding to the next sheet. The side lap with preceding sheet should be fastened last.
- In the case that two or more shorter sheets are installed to provide full length coverage due to handling or transport considerations, lay each complete line of sheets in turn from gutter/ eaves to ridge, as shown in the diagram.



NOTE:

Please refer to "Guidelines for Specification and Installation of LYSAGHT® Roofing and Walling Solutions" for detailed information on installation method, tips for inspection and compatibility notes.



NS BlueScope Lysaght Singapore Pte Ltd
18 Benoi Sector,
Jurong Town
Singapore 629851

Tel: 65-6264 1577
Fax: 65-6265 0951

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www.lysaght.com.sg

lysaght.singapore@bluescope.com

Web:



Oct 2018

