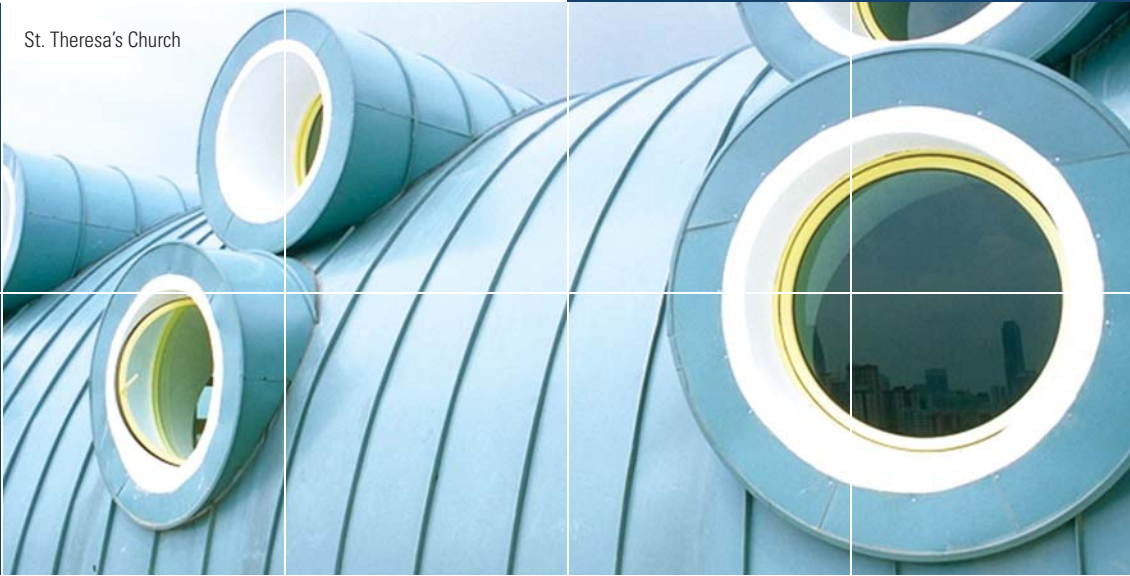


# LYSAGHT® SELECT SEAM® Series

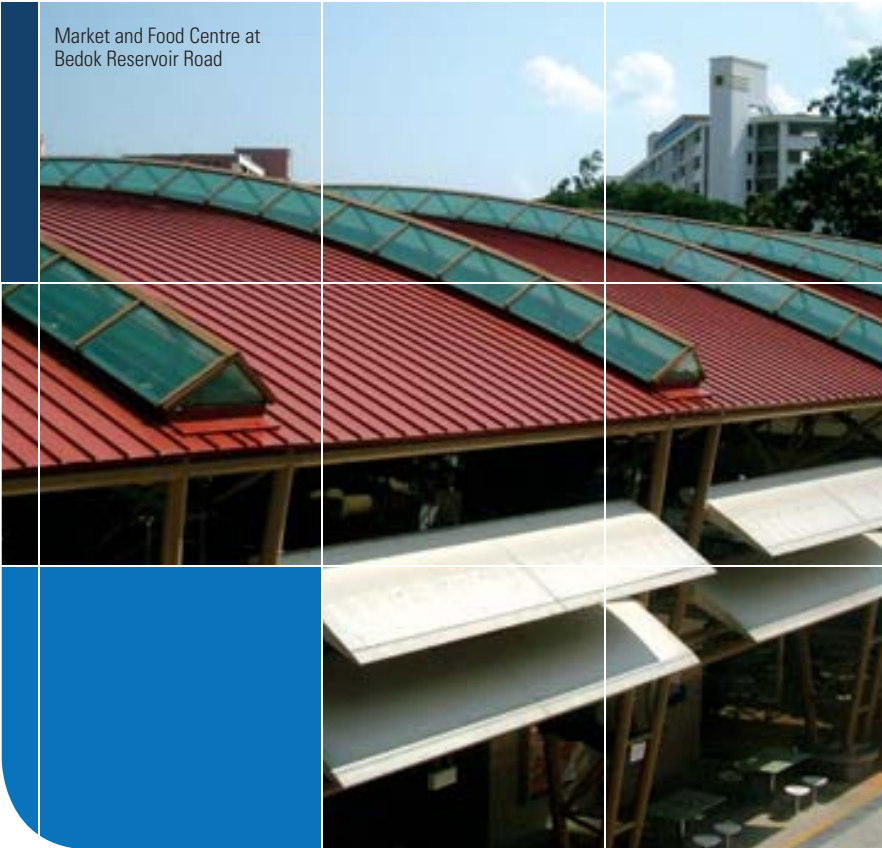


**LYSAGHT**

St. Theresa's Church



Market and Food Centre at Bedok Reservoir Road



Residential project at Ripley Crescent



## LYSAGHT® SELECT SEAM® SERIES ROOF PROFILE

Sleek and aesthetically pleasing standing seam roof profiles from LYSAGHT® roofing and walling solutions are known for form and function attributes.

Being an economical version of standing seam roof and its non-industrial appearance has made countless popular applications in residential, institutional and commercial

roofing projects. Minimum accessories are needed to install the roofing sheets with ease. Manufactured from BlueScope Steel's proprietary Clean COLORBOND® steel, its strength to weight ratio, durability and superb weather resistance delivers improved performance.

One will find LYSAGHT® standing seam

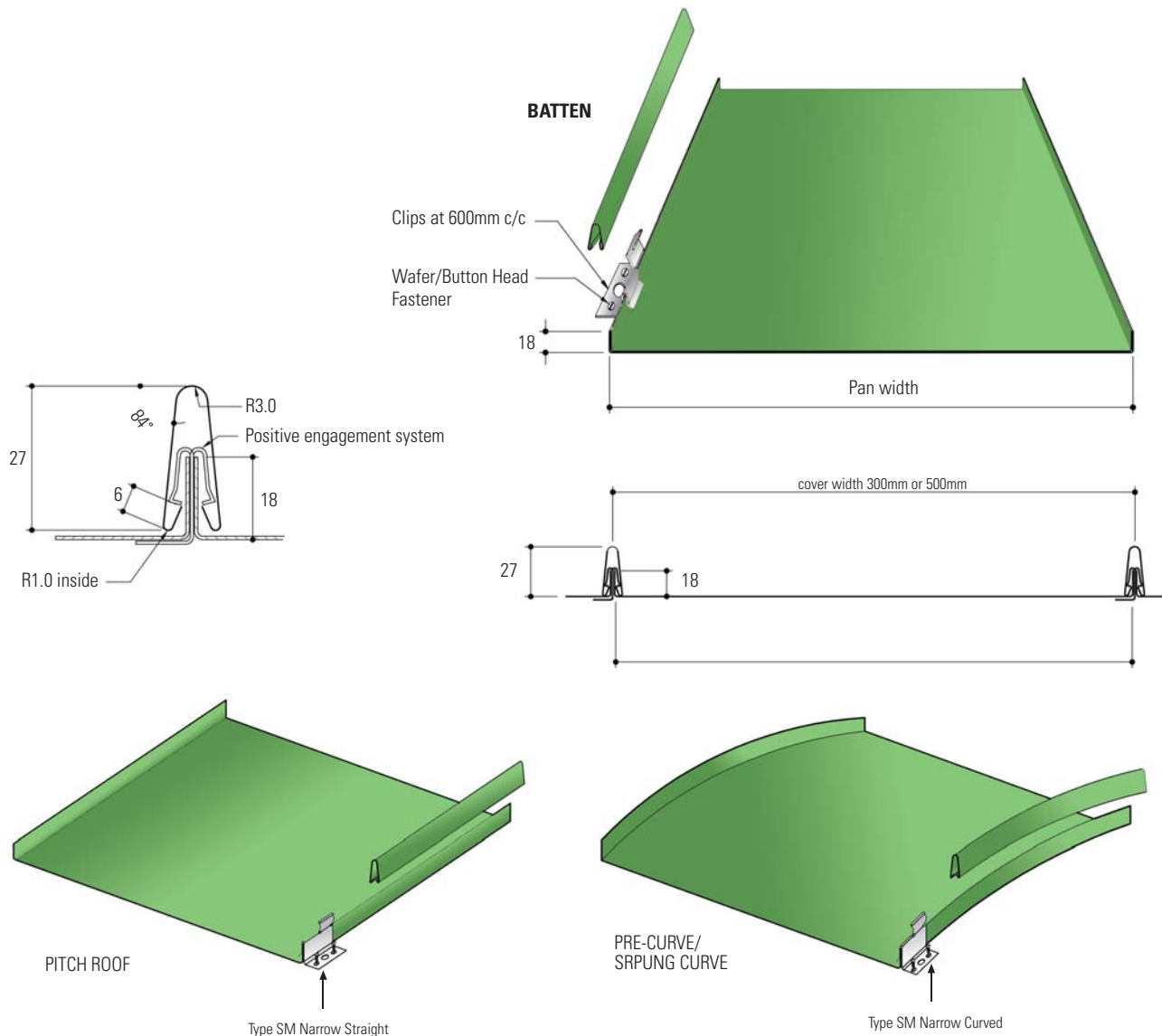
roofing profiles being widely used as roof, wall and fascia with its capability to form both straight and curved roof with classic and sleek pitch .

There are two profiles available in LYSAGHT® standing seam profiles :

1. LYSAGHT® SELECT SEAM®
2. LYSAGHT® SELECT SEAM® II

## LYSAGHT® SELECT SEAM®

LYSAGHT® SELECT SEAM® roof profile is a concealed fastened roof system that is versatile for both vertical and inclined applications. It is especially flexible for difficult hip and mansard roofs. Its clean wide pan appearance makes it ideal for a classic architectural effect. Continuous ribbed lines can be beautifully achieved over multiple changes in roof pitch. The recommended roof pitch is 7.5° .

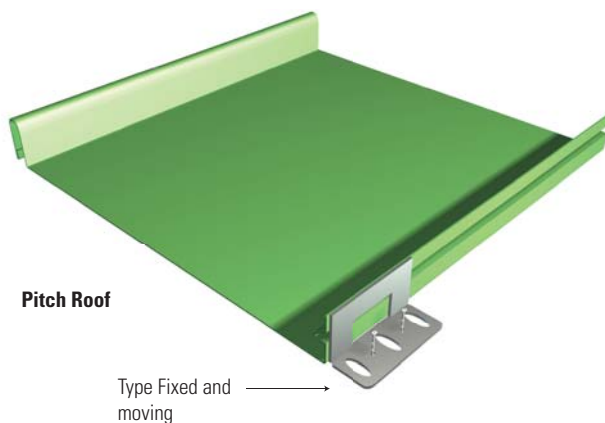
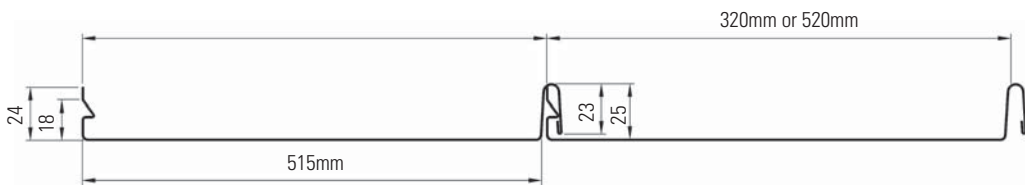
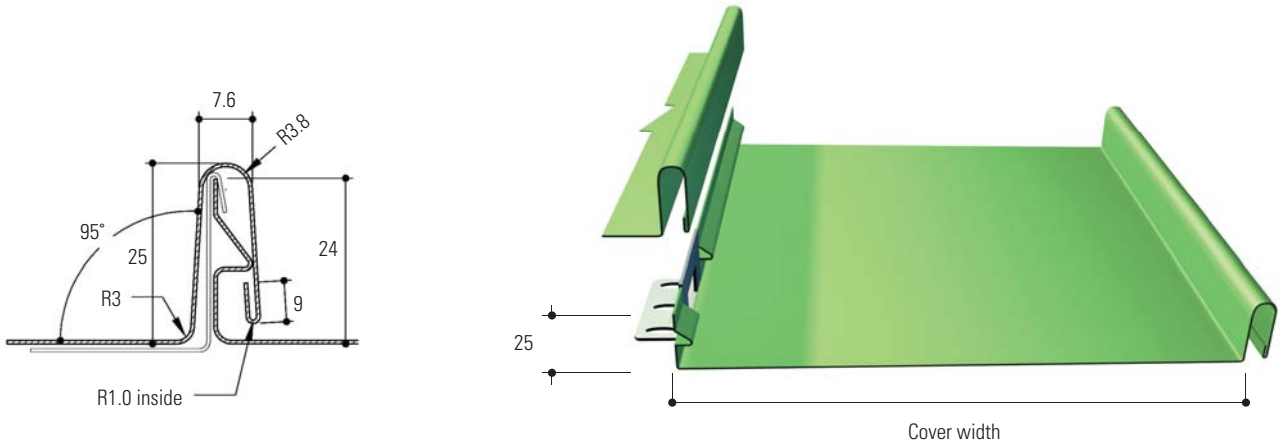


LYSAGHT® SELECT SEAM® Profile

## LYSAGHT® SELECT SEAM® II

LYSAGHT® SELECT SEAM® II roof profile is an extremely high-performance snap-on profile with the aesthetics of a traditional standing seam panel. Its specially designed "snap-on" side joint delivers excellent seal. At seam height of 25mm, it does not require a preformed batten which makes it easy to install and fix. LYSAGHT® SELECT SEAM® II may be utilized in roofing, mansards and fascia applications.

Its simplicity only allows application in non-curved roofs. The simplicity of the pan design combined with in-line tension leveling provides superior flatness and allows for greater workability on site.



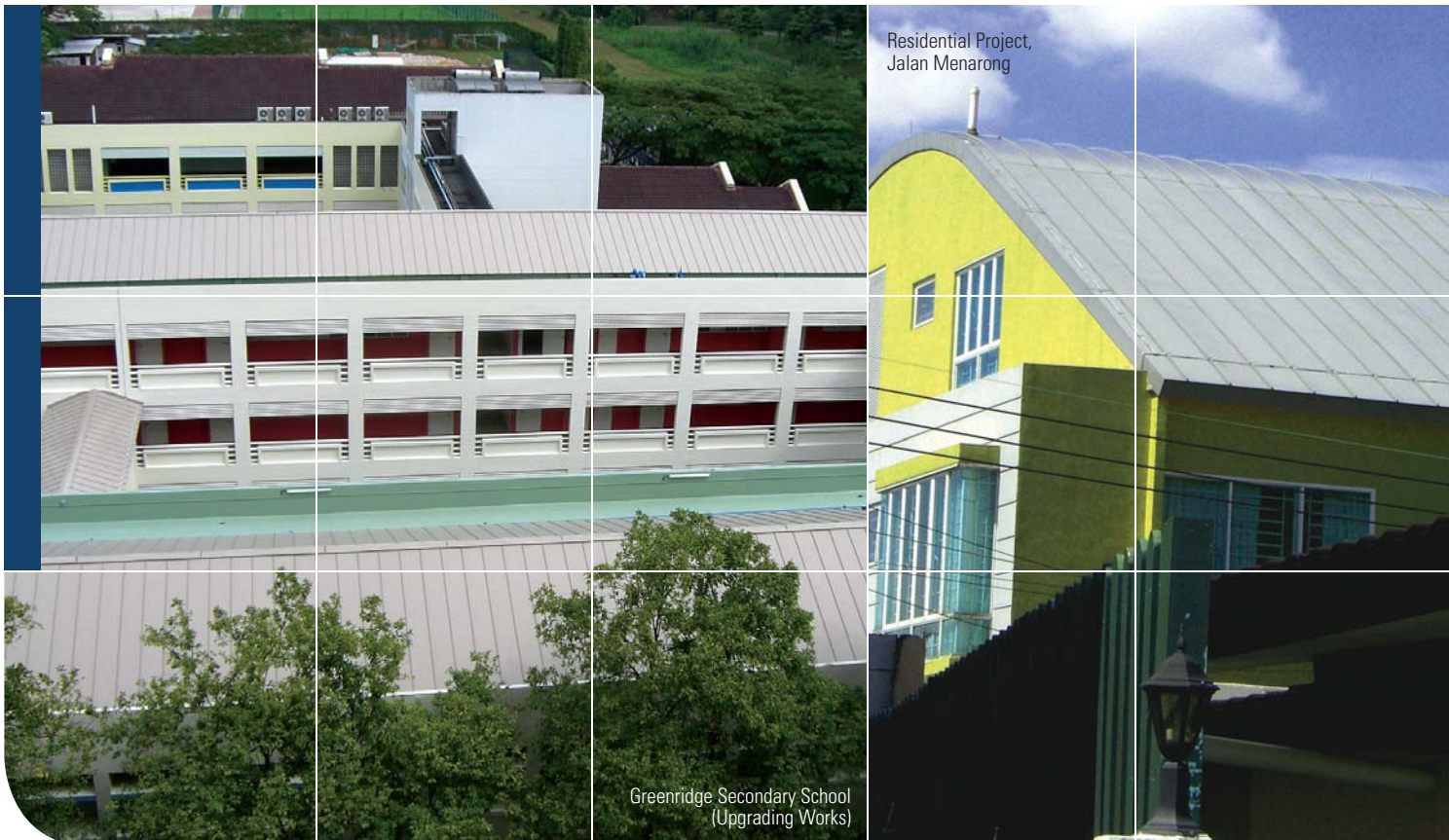
LYSAGHT® SELECT SEAM® II Profile

## PHYSICAL PROPERTIES

	LYSAGHT® SELECT SEAM®	LYSAGHT® SELECT SEAM® II
<b>Cover Width</b>	300mm or 500mm	320mm or 520mm
<b>Height of Seam</b>	27mm batten seam height	25mm
<b>Maximum Length</b>	11.8m (Export) 14m (Local)	
<b>Minimum Roof Pitch</b>	7.5°	
<b>Grade of Steel</b>	G300 (300 MPa)	
<b>Metallic Coating</b>	ZINCALUME® steel (zinc / aluminium alloy coated steel)	
<b>Choice of Finishes</b>	Clean COLORBOND® XRW steel - Polyester Paint System	
	Clean COLORBOND® XPD steel - PVF <sup>2</sup> Paint System	
	Clean COLORBOND® XPD Pearlescent steel - PVF <sup>2</sup> Pearlescent	
	Clean COLORBOND® Ultra steel - Polyester Paint System	

Recommended Radius Curvature For LYSAGHT® SELECT SEAM® PROFILE			
	Minimum Radius (mm)	Maximum Radius (mm)	
<b>Sheet Profile</b>	Pre-curved	800	10,000
	Sprung curved	10,000	60,000
<b>Batten</b>	Pre-curved	800	20,000
	Sprung curved	20,000	60,000

Note: • Please consult BlueScope Lysaght Singapore for pre-curved and tapered sheet profile.  
 • LYSAGHT® SELECT SEAM® II roof profile is not applicable for curved and tapered applications.



## SLOPE REQUIREMENTS

The minimum slope requirements for LYSAGHT® SELECT SEAM® profile is on a slope of 1:8 (approx. 7.5°). For more information and clarification on other roof pitch, please consult BlueScope Lysaght Singapore.

## CURVED PANELS

LYSAGHT® SELECT SEAM® panels and battens

are suitable for installation over curved surfaces. A radius as small as 800m can be achieved by pre-curling.

## PINNING REQUIREMENTS

LYSAGHT® SELECT SEAM® series roof profile must be pinned at the ridge to resist the drag load caused by live loads and thermal movement.

The intensity of the drag is a function of slope, the loads and the length of the sheet. Table 1 gives the drag loads for various slopes and loading conditions.

Table 1

Drag Load Per Square Metre of LYSAGHT® SELECT SEAM® and LYSAGHT® SELECT SEAM® II Profile Panel Live and Dead Load (kN/m<sup>2</sup>)

Slope	0.75	1.00	1.50	2.00	2.50	3.00
5°	0.07	0.09	0.13	0.17	0.22	0.26
7°	0.09	0.12	0.18	0.24	0.30	0.37
10°	0.13	0.17	0.26	0.35	0.43	0.52
14°	0.18	0.24	0.36	0.48	0.60	0.73
18°	0.23	0.31	0.46	0.62	0.77	0.93
22°	0.28	0.37	0.56	0.75	0.94	1.12
26°	0.33	0.44	0.66	0.88	1.10	1.32
30°	0.38	0.50	0.75	1.00	1.25	1.50
34°	0.42	0.56	0.84	1.12	1.40	1.68
37°	0.45	0.60	0.90	1.20	1.51	1.81
40°	0.48	0.64	0.96	1.29	1.61	1.93



The Calypso,  
Boutique Apartment,  
Upper East Coast Road



The Calrose Condominium



SAFRA Clubhouse @ Boon Lay



Residential Project,  
Cluster Apartment Housing

## CONDENSATION, NOISE AND INSULATION

Insulation to meet the Noise Criteria can be incorporated into the roof system. Please consult BlueScope Lysaght Singapore for further clarification.

### SUBSTRATE

LYSAGHT® SELECT SEAM® series roof profile cannot span between spaced support and therefore require panels to be laid over solid substrates, such as LYSAGHT® SPANDEK® substrate or LYSAGHT® TRIMDEK® substrate with a Total Coated Thickness (TCT) of 0.47mm in ZINCALUME® steel.

## HEAT CONTROL

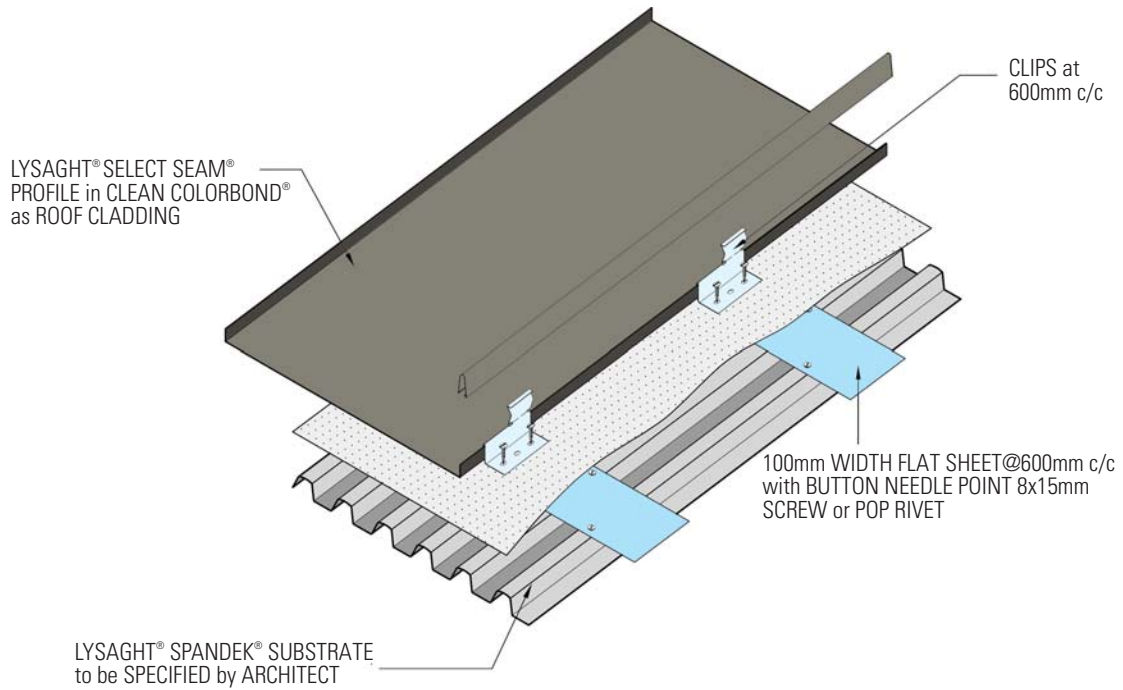
The effective method to control the heat is to drape a membrane of the reflective foil lamination over the support before laying the sheeting or insulation blanket. The laminate can also provide a vapour barrier to minimise condensation. The insulation blanket is often provided for additional heat insulation to overall system.

## RAIN NOISE

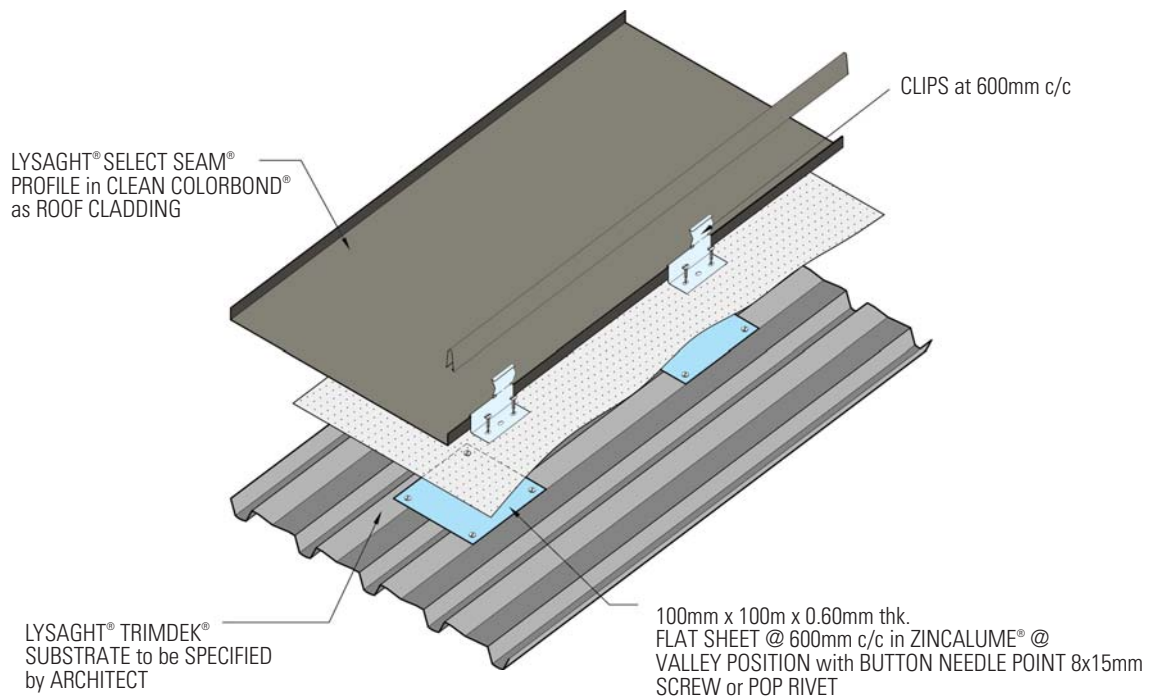
To reduce rain noise on metal roof sheeting, a self adhesive bitumen felt is placed underneath the roof sheeting to dampen the rain induced vibration at point of impact. This

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.

**Example:**  
**LYSAGHT® SELECT SEAM® profile with LYSAGHT® SPANDEK® substrate**



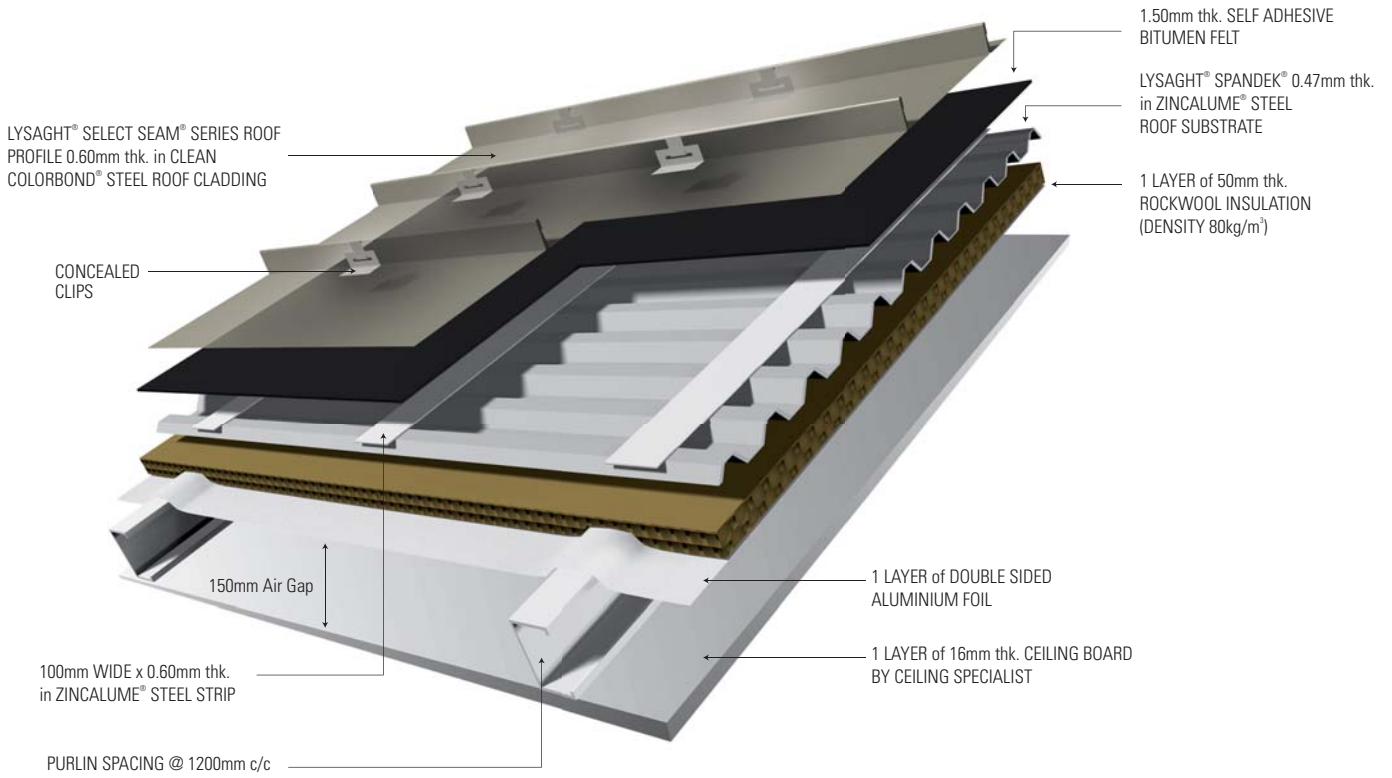
**LYSAGHT® SELECT SEAM® profile with LYSAGHT® TRIMDEK® substrate**





## ACOUSTIC ROOF SYSTEM

BlueScope Lysaght Acoustic Roof System, tested by PSB Corporation Singapore had rated the roof system tested on October 10, 2002 as having a sound transmission Class 51 (STC 51). The test was conducted in accordance with ASTM E90 – 97.



Typical Roof Built-up of LYSAGHT® SELECT SEAM® and LYSAGHT® SELECT SEAM® II in sound transmission class STC 51





Dunman Food Centre



Residential Project



Residential Project,  
Cluster Terrace Houses,  
Upper Changi Road



Lakeside Primary School

### OIL CANNING

The appearance of flatness depends on the distribution of the stresses across the surface of the metal sheet. These stresses will change as temperature changes. The ability of a metal to transfer the effect of these stresses across the surface without buckling or distorting out of plan, will determine the level of "oil canning" that will occur.

"Oil canning" is a metaphorical term used to describe the tendency of flat surfaces to show variations in reflectivity. For example, a curved

mirror will show a stretched and distorted image of a person standing in front of it. A metal surface too, will distort the reflection of light if minor variations in and out of a level plane exist. The appearance of flatness is very much dependent on surface reflectivity. It is also caused by mill tolerances, variations in the substrate/decking and purlin alignment. Some paint finishes and metals that have high gloss index will exhibit highly apparent distortion. The visual effects of oil canning can be exacerbated by different light conditions and orientation. Darker colours visually accentuate oil canning to a greater extent than

the lighter, more neutral colours.

There are several precautions that can be taken to reduce the oil canning effect. One is to use thicker material, because thicker metal tends to oil-can less than thinner metal. An alternative is to specify LYSAGHT® SELECT SEAM® trays with stiffening ribs in the pan of the panels.

**Oil canning is an inherent characteristic and not a defect of a standing seam profile. It is therefore not a cause for panel rejection.**



### 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.

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.



Bedok Green Primary School



MINDS Special School



Linkway at Ang Mo Kio





# LYSAGHT®

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