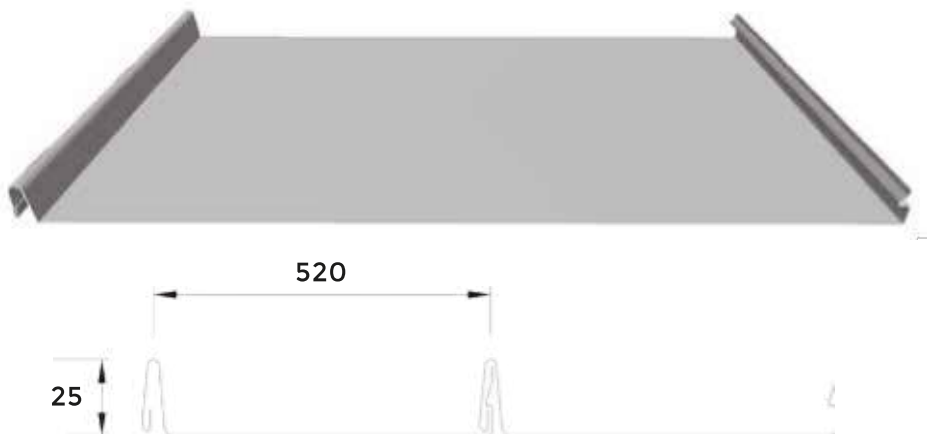


M-SNAP 520

Excellent watertight system
with cost and aesthetic appeals



M-Snap 520 comes with an integral snap on seam for faster installation, excellent watertightness and strength. The profile is similar in appearance to traditional standing seam but is more economical. It does not require mechanical seaming during installation and the panels are easy to handle on-site.

M-Snap 520 comes with a rib height of 25mm and cover width of 520mm, is suitable for applications on pitched roofs, walls, soffits and fascias in residential, institutional, and commercial projects. The profile is not recommended for curved-roofs.

5



Galvalume® is a trade mark of BIEC International Inc (USA)
licensed to YP Enterprise Co. Ltd.
ColorLume® is a registered trade mark of
Yieh Phui Enterprise Co., Ltd



Formed with
ColorLume®
Galvalume®



Locally produced &
custom-cut using
modern machinery



Supply
and fix
service



FPC & ISO
9001-2015
Certified

We are aware of the importance of having shelter over our heads.
We also understand overheads.
Talk to us about our competitive pricing and services.
We are standing by to receive your call.

M METAL PTE LTD

9 Tuas Avenue 2 Singapore 639449
T : +65 6898 9637 • F : +65 6558 7294
E : sales@mmetal.com.sg • W : www.mmetal.com.sg

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You Inspire, **We Deliver.**

**M - SNAP
520**



SGBP 2018-1366



M Metal - a game changer

Benefits of M-Snap 520

- M-Snap 520 interlocking feature provides excellent watertightness.
- It conforms to International and Singapore Standards.
- Conceal fixing without the need for exposed fasteners enhances aesthetic value.
- Versatile for both vertical and inclined applications.
- Quick and easy to install with snap on rib fixing method.
- Lightweight and weather-resistant.
- Effective acoustic insulation.
- It has good water-carrying capacity and is reliably watertight.
- Used for variety of applications including for roofs and building facade.
- ✓✓✓✓ **Leader** Green mark certified by Singapore Green Building Council (SGBC).

M Metal is a Singapore-based manufacturer of high quality steel and non-steel roofing and walling products.

We started the company in 2007 in response to what we saw was a growing industry need for a responsible supplier, which believes in the value of forging partnerships with stakeholders in order to deliver innovative, reliable and customized solutions. It is our breadth and depth of specialized knowledge, combined with our stakeholders' awareness of their client needs, which results in a win-win collaboration.

Material Specification

Physical Properties

	Standard
Base Metal Thickness	0.55mm
Total Coated Thickness	0.61mm
Weight	5.33 Kg/m ²
Cover Width	520mm
Rib Height	25mm

Recommended Roof Pitch

Sheet length without end lap	5° (approx 1 in 12)
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* End laps are not recommended

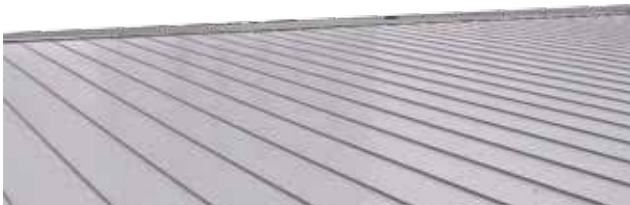
The base material of M-Snap 520 is a protected steel sheet with a minimum yield stress of 300MPa (Grade G300) finished with high gloss and color retention ColorLume® paint system. The substrate is coated with metallic hot-dipped zinc/aluminium alloy comprising 55% Aluminium, 43.5% Zinc and 1.5% Silicon for long-term performance against corrosion.

The minimum total coating mass for the zinc/aluminium alloy is 200 g/m² or AZ 200* coating class as determined by Australia Standard AS1397-2011.

* AZ 200 is widely known as Galvalume®, a registered trademark of BIEC International Inc (USA) licensed to YP Enterprise Co., Ltd.

Our sense of responsibility extends to workplace safety. We strongly believe that good safety equates good business. Through regular training sessions, we make sure that our workers, and also those of our contractors, are able to do a good job safely.

Staffed by experienced professionals with an in-depth knowledge of the industry and who are motivated by the company's vision - to be the industry's preferred building solutions provider from concept to completion - we aim to be a game-changer in Singapore's building industry.



Finishes

M-Snap 520 is finished with ColorLume® PVDF (70/30), SMP or ColorLume iClean™ factory finished paint system.

The detailed coating composition is as follows:

Finish Coat*

- ColorLume® PVDF** : High performance Polyvinylidene Fluoride (abbreviated PVDF or called Fluorocarbon) with full strength 70% of KYNAR® 500 or HYLAR® 5000 premium resin is used. 20µm nominal dry film thickness.
- ColorLume iClean®** : High-durable polyester paint system with improved clean properties where the resin is integrated within the paint system. 20µm nominal dry film thickness.
- ColorLume® SMP** : Custom formulated Silicon Modified Polyester (SMP) paint system. 20µm nominal dry film thickness.

Primer Coat

Anti-corrosion inhibitive polyurethane primer. 5µm nominal dry film thickness on both sides.

Pre-treatment

With proprietary conversion film to achieve excellent adhesion between the steel surface and paint finish on both sides.

Substrate

AZ 200 alloy coated steel. AZ comprises 55% Aluminium, 43.5% Zinc and 1.5% Silicon (by weight) in accordance to ASTM A792M. Minimum coating mass, 200 g/m² on both sides.

Backing Coat

Custom formulated polyester coating. Light Grey for PVDF and Egret White for SMP. 10µm nominal dry film thickness.

Gloss

Nominal gloss level of 25 GU at 60° reflection angle.

* For colour selection, please refer to our color chart or the actual color plate sample. Maximum specular gloss allowed is 30 G.U. (Gloss Unit) as measured at 60° reflection angle in accordance to ASTM D 523 : 2008 / SS 5 Part E1 : 2003 Performance Standards).

Material Performance Test

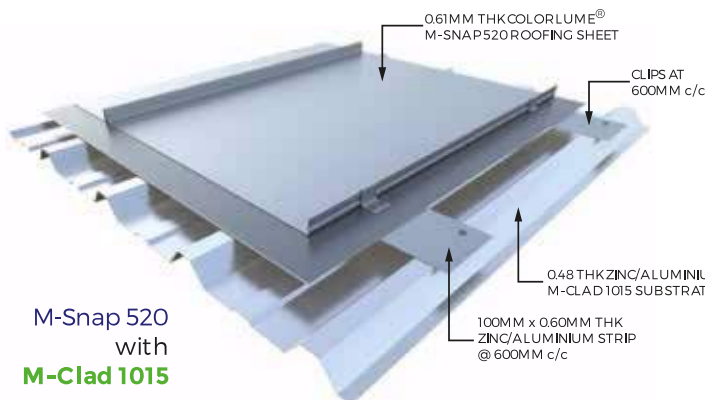
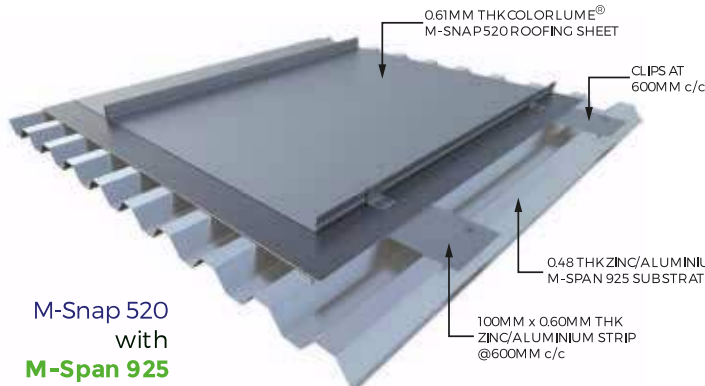
Typical Properties	Test Standard (Method)	Correspond to Singapore Standard SS631:2017*
T-Bend Test	ASTM D 4145-10	AS 2728
Pencil Hardness	ASTM D 3363-09e2	ASTM D 3363
Colour	ASTM D 2244-11	SS Part E3
Specular Gloss	ASTM D 523-08	SS 5 Part E1
Dry Film Thickness	ASTM D 7091-05	SS 5 Part B1
Impact Resistance	JIS K5600-5-3	ISO 6272
Humidity Resistance	JIS K5600-7-2	SS 5 Part G6
Cross Cut Adhesion	JIS K5600-5-6	ISO 2409

Corrosion and Weathering	Test Standard (Method)	Correspond to Singapore Standard SS631:2017*
Salt Spray Test	ASTM B 117-09	SS 5 Part G1
Weathering Test	ASTM G 154-06	SS 5 Part G4
Acid Resistance (10%v/v HCL)	JIS K5600-6-1	ISO 2812

* Material performance for the manufacture of profiled roof and wall cladding conforms to Singapore Standard 631 : 2017 Specification for Metal Roofing.
* Fire Classification A1 in accordance to EN 13501-1.

Substrate

M-Snap 520 roof profile requires solid substrate such as M-Span 925 or M-Clad 1015.



Design Performance

M-Snap 520 Limit State Wind Pressure Capacity - kPa

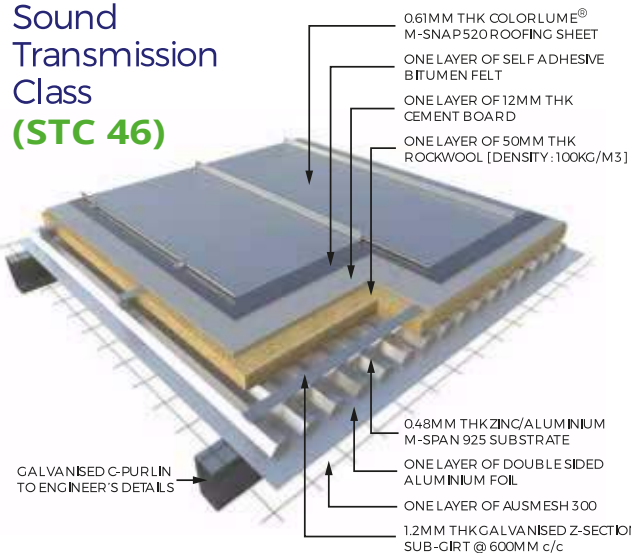
Structural Adequacy Test

M-Snap 520 has been tested against high wind pressure and cyclonic load. The test was carried out complying with ASTM E330 for Structural Adequacy Test under Static Pressure, were also undertaken on Structural Adequacy Test under BD PNAP 106 cyclic. No disengagement, failure or gross permanent deformation observed when testing was performed.

Test & Compliance	Wind Pressure (kPa)	Observation	Comment
Structural Adequacy (ASTM E330)	+1.82/ -4.004	No failure	Satisfactory
Structural Adequacy (Cyclic to BD PNAP 106)	+1.82/ -4.004	Deflection satisfactory	Satisfactory
	Safety up to +2.275/ -5.005	Recovery satisfactory No damage	

Acoustic Roof System

Sound Transmission Class (STC 46)



* Ausmesh 300 safety roof mesh is designed to support insulation and to help prevent construction roof workers from falling.

Please contact M Metal Pte Ltd, Technical Department for all technical matters and assistance with your roof design

Compatibility

All products should be checked for compatibility with adjacent materials before installation. It is important to check the implications of direct contact between materials, and water runs from one material to another.

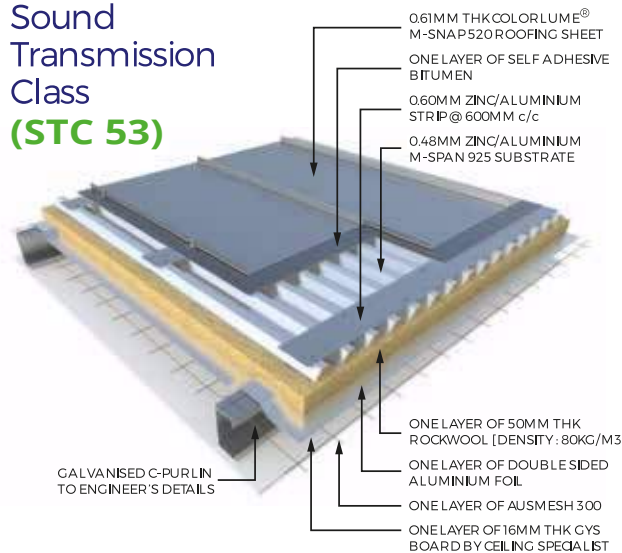
Galvalume®/ColorLume® SMP/ColorLume® VF-20L (70/30) PVDF coated steel sheets should not be placed in direct contact with copper, lead, green or treated timber, stainless steel, mortar or concrete.

Delivery / Unloading

M Metal provides a shorter lead-time than other manufacturers because its manufacturing facility is located in Singapore. Delivery can be made within 3 working days subject to the delivery location, quantity and material availability.

Please ensure that suitable arrangements have been made for truck unloading. When lifting M-Snap 520, care should be taken to ensure that the load is spread evenly to prevent damage.

Sound Transmission Class (STC 53)



Length

M-Snap 520 roof and wall claddings are supplied cut-to-length. Regulatory limits for transporting long products by the local transport authority should be verified. The manufacturing tolerance on the length of product supplied is ±0-15mm.

Handling / Storage

M-Snap 520 should be handled with care at all times to preserve the quality of its finish and product capabilities. M-Snap 520 packs should be stored above ground level while on-site and kept dry.

Oil Canning

Oil canning describes how flat surfaces tend to show variations in reflectivity (waviness). The level of oil canning depends on the ability of the metal sheet to distribute stresses caused by temperature change across the surface. Oil canning is inherent in flat sheets; it is a characteristic, not a defect, and it should not be used as the basis for panel rejection.