

Prepainted - PP

GENERAL DESCRIPTION

BlueScope ZACS COOL® prepainted steel is an economical but high quality thin-gauge roofing and wall cladding material designed for retail segment. It has Aluminium/Zinc alloy protective coating that offer significantly better corrosion resistance and longer life expectancy than galvanized steel (GI), or prepainted galvanized steel (PPGI). To determine if warranties apply, please contact your nearest BlueScope sales office for advice.

TYPICAL USES

Thin-gauge and economical roll formed roofing and wall cladding, and awning for retail segment. For material selection advice, please contact your nearest BlueScope sales office.

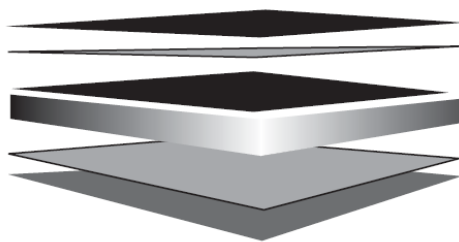
MALAYSIAN STANDARD

Paint Coating – MS 2383 C2;

Substrate – MS 1196

PRODUCT INFORMATION

PREFERRED SUBSTRATE	55% Al/Zn G550S AZ90 steel (Aluminium/Zinc alloy-coated steel)
	55% Al/Zn G300S AZ90 steel (Aluminium/Zinc alloy-coated steel) (Refer Note 8)
PRETREATMENT	Corrosion resistant proprietary conversion coating
FINISH COAT	Custom formulated paint system. Nominal dry film thickness 12µm on the top or weather side.
BACKING COAT	Custom formulated Villa Backer. Nominal dry film thickness 5µm
COLOUR	A range of standard colours is available. Other specifically required colours may be available on request.



Finish Coat (Nominal 12µm) (Refer Note 4 & 5)
Conversion Coating

55% Aluminium/Zinc Alloy Coated Steel Substrate AZ90
Conversion Coating
Backing Coat (Villa Backer, Nominal 5µm) (Refer Note 6)

DIMENSIONAL CAPABILITIES*

55% Al/Zn G550S AZ90 STEEL		55% Al/Zn G300S AZ90 STEEL	
PREFERRED BASE METAL THICKNESS, mm*	MAXIMUM WIDTH, mm	PREFERRED BASE METAL THICKNESS, mm*	MAXIMUM WIDTH, mm
0.20, 0.23, 0.25, 0.28, 0.30	914	0.20, 0.23, 0.25, 0.28, 0.30	914

Notes

* The dimensional tolerances for thickness, width, flatness, and camber shall be in accordance with the requirements of ISO 16163. Not every combination of thickness and width may be available. Supply conditions may be subject to dimensional restrictions and are subject to BlueScope Sales and Marketing confirmation. Slitting and shearing available on request from BlueScope Sales Offices. For requirements outside the standard product range please contact your local Sales Office.

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ATTRIBUTES TESTED DURING MANUFACTURE

PROPERTY	TEST & EVALUATION METHOD (S)	RESULTS
Specular Gloss		
Specular Gloss at 60°meter	ISO 2813	Nominal 45 ± 10 units or 80 ± 10 units
Adhesion		
Reverse Impact	MS 2383 (Annex C)	≥10 joules
T-bend	MS 2383 (Annex D)	Maximum 6T. Refer Note 7
Hardness		
Pencil	ISO 15184	HB or harder

PRODUCT ATTRIBUTES

PROPERTY	TEST & EVALUATION METHOD (S)	RESULTS
Resistance to Abrasion		
Scratch	ISO 1518-1	Typically 1000g
Resistance to Humidity		
Cleveland (500 hours)	ISO 6270-2; ISO 4628-8 (Undercutting); ISO 2409 (Adhesion); ISO 4628-2 (Blisters); ISO 4628-3 (Corrosion).	Undercut at scribed lines: ≤2mm. Loss of adhesion: Rating 0 for cross-cut test. Blistering: Not worse than Rating 3-S2. Corrosion of base metal: Not worse than Ri 0.
Resistance to Corrosion		
Neutral Salt Spray (100 hours)	ISO 9227; ISO 4628-8 (Undercutting); ISO 2409 (Adhesion); ISO 4628-2 (Blisters); ISO 4628-3 (Corrosion).	Undercut at scribed lines: ≤2mm. Loss of adhesion: Rating 0 for cross-cut test. Blistering: Not worse than Rating 2-S3. Corrosion of base metal: Not worse than Ri 0. Refer Note 2
Resistance to Heat		
Exposure 100°C continuous (500 hours)	ASTM D2244 (Colour)	Colour change ΔE CIELAB 2000: ≤3 units

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IMPORTANT NOTES

1. All warranties for a product, if any, are subject to eligibility. Terms and conditions apply. Nothing in this document is intended by BlueScope to extend, modify or otherwise affect any stated product warranty. To find out more, please contact your nearest BlueScope sales office.
2. If it is intended to use BlueScope ZACS COOL® steel in an exterior application within 1km of salt marine locations, severe industrial or abnormally corrosive environments; in areas not washed by rain, or in applications where it will be wholly or partly buried in the ground, please contact your nearest BlueScope sales office for specialized advice. For selection of the most BlueScope ZACS COOL® steel product, please refer to Technical Bulletins TB1a, TB1b, CTB16, CTB21, and CTB22.
3. Customers should use product promptly (within 6 months) to avoid the possibility of storage related corrosion.
4. Finish Coat – the coating applied to the exposed surface of the prepainted coil which is expected to meet the Performance Requirements.
5. The product is supplied with a nominal 45 unit or 80 unit (60°) gloss Finish Coat.
6. Backing Coat – a thin coating applied to the reverse surface of the prepainted coil. It also gives additional durability to the reverse surface during the service life of the product, but for aesthetic reasons is not recommended for exposure to sunlight. Performance Requirements are generally not applicable to backing coats.
7. The minimum internal bend diameters for forming processes to achieve no paint cracking (visible using x 10 magnification) and to avoid paint adhesion issues are specified by the T-bend flexibility and T-bend adhesion results respectively – where 1T equals the Total Coated Thickness (TCT) in mm of the material. These results are based on testing at 20-25°C.
8. For most products, the metallurgical ageing process which is inherent in the paint stoving cycle will result in some loss of ductility compared with unpainted product. However, minimum strength levels designated by relevant standards will still be applicable.
9. Improper storage or use of non-approved roll-forming lubricants may cause brand transfer and paint blushing, and may adversely affect colour and long term durability. Product in coil or sheet pack form must be kept dry. If the coil or sheet pack becomes wet, it must be separated and dried (refer MS 2383 Annex E, and also Technical Bulletin TB7). Contact nearest BlueScope sales office on appropriate roll-forming lubricants.
10. Values quoted are for panels exposed in accordance with AS/NZS2728. Variations for in-situ performance may occur due complexity of building design and location.
11. BlueScope ZACS COOL® steel has good resistance to accidental spillage of solvents such as methylated spirits, white spirit, mineral turpentine, toluene, and trichloroethylene and dilute mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.
12. We recommend storage in bore vertical orientation to prevent coil slump. If you wish to know more about the consequence of coil slump, please refer to our Fact Sheet 2, link: <https://www.nsblescope.com/my/wp-content/uploads/sites/7/2020/10/Fact-Sheet-Coil-Slump.pdf>.
13. Use of aged coil might lead to quality issue during roll-forming process. To determine if warranties apply for aged coil, please contact your nearest BlueScope sales office for advice.