COLORBOND® Coolroom steel

Revision 0 September 2025

Prepainted - PP

GENERAL DESCRIPTION

COLORBOND® Coolroom steel is a prepainted steel with hot dipped zinc alloy coated substrate with a food-grade (HACCP) feature on the top surface. Designed by BlueScope, specifically for the manufacture of sandwich panels for coolrooms. The product offers excellent formability coupled with good durability.

TYPICAL USES

For Coolroom panels application

STANDARD

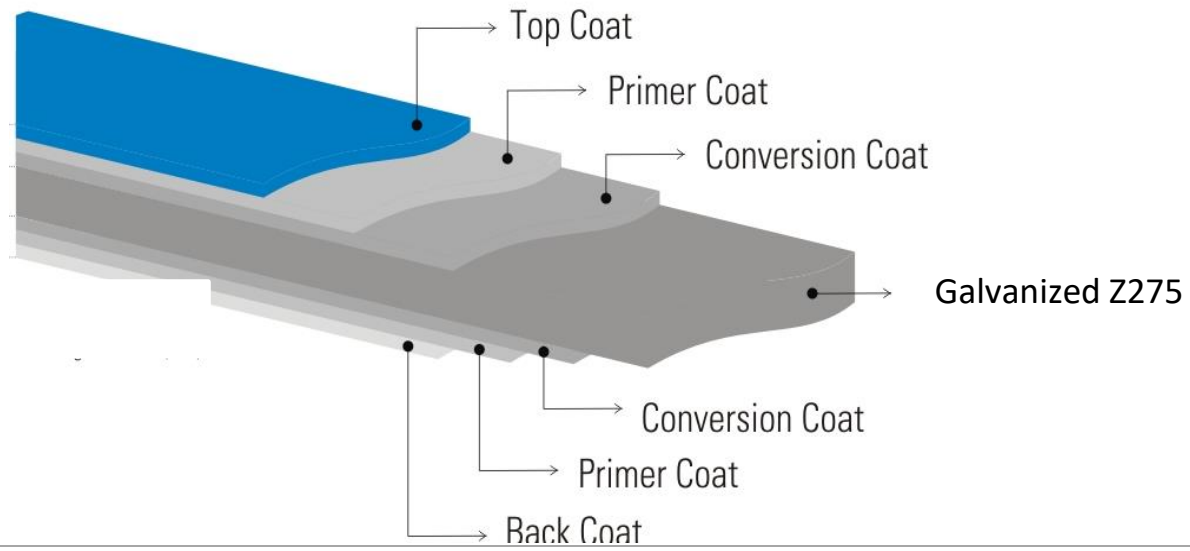
AS/NZS 2728:2013 Prefinished/Prepainted sheet metal products for interior/exterior building applications – Performance requirements.
AS 1397:2011 Continuous hot-dip metallic coated steel sheet and strip – Coatings of Zinc and Zinc alloy with aluminium and magnesium.

INDONESIA STANDARD

SNI 4096:2007 Baja lembaran dan gulungan lapis paduan Aluminium – seng (Bj.L AS)
SNI 8305:2019 Baja lembaran dan gulungan lapis paduan aluminium dan seng dengan atau tanpa magnesium lapis cat atau laminasi (Bj.LAS warna/Bj.LASM warna)

PRODUCT INFORMATION

SUBSTRATE	G300 Z275 steel (Zinc alloy-coated steel) (Refer to Note 4)
PRETREATMENT	Corrosion-resistant proprietary conversion coating
PRIMER COAT	Universal corrosion inhibitive primer. Nominal dry film thickness 5µm each side
FINISH COAT	Premium cool room storage with approved TopCoat and HACCP approval. Prevented Intergranullar corrosion - Z275. Resistance to peel/flake with approved Top / Bottom Primer. Appproved Foam Grey backing coat for insulation adhesion. Nominal dry film thickness 20 micron.
BACKING COAT	Custom formulated Foam Grey. Nominal dry film thickness 5µm
COLOUR	Coolroom White



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Guaranteed Properties of Steel Based

Mechanical Properties	Guaranteed Minimum
	G300
Yield Strength (MPa)	300
Tensile Strength (MPa)	340
Elongation (% - on 50mm)	20

Chemical Properties of Steel Based

Elements	Guaranteed Max (%)
	G300
Carbon	0.30
Mangan	1.60
Phosphorus	0.040
Sulphur	0.035

Fabricating Performance

Method	G300
Bending	Excellent
Drawing	Limited
Pressing	Good
Roll Forming	Excellent
Painting (pretreatment)	Excellent
Welding	Good

Dimensional Capabilities

Thickness (BMT)	Width Range
	G300
0.45	914, 1219
0,60	914, 1219

Notes:

- The dimensions are a reflection of the technical capability to produce an applicable market offer
- Supply condition may be subject to dimensional restrictions and is subject to PT. NS BlueScope Indonesia Sales and Marketing confirmation.
- Optional supply conditions may be subject to dimensional restrictions.
- Typical mechanical properties are based on typical dispatched to the Customer.

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PRODUCT ATTRIBUTES

PROPERTY	TEST & EVALUATION METHOD (S)	RESULTS
Specular Gloss		
60°meter	AS/NZS1580.602.2; ASTM D523	Nominal 25 ± 10 units
Adhesion		
Reverse Impact	AS/NZS2728 (Appendix E)	≥ 10 joules
T-bend	AS/NZS2728 (Appendix F)	Maximum 6T. Refer Note 7
Hardness		
Pencil	AS1580.405.1	HB or harder
Resistance to Abrasion		
Scratch	AS2331.4.7	Typically 2000g
Flexibility		
T-bend	ASTM D4145	Maximum 10T (no cracking). Refer Note 7
Adhesion		
Natural well washed exposure (15 years)	AS/NZS 1580.457.1	No flaking or peeling. Refer Notes 9 & 10
Resistance to Humidity		
Cleveland (500 hours)	ASTM D4545; AS/NZS 1580.481.1.9 (Blisters); AS 1580.408.4 (Adhesion)	Blister density: ≤3. Blister size: ≤S2. No loss of adhesion or corrosion
Resistance to Corrosion		
Salt spray (1000 hours)	AS/NZS2728 (Appendix I), ASTM B117, AS2331.3.1, AS/NZS 1580.481.1.9 (Blisters), AS1580.408.4 (Adhesion)	Blister density: ≤2. Blister size: ≤S3. Undercut from score: ≤2mm. No loss of adhesion or corrosion. Refer Note 2
Resistance to Colour Change		
QUV (2000 hours)	ASTM G154 & ASTM D2244 (Colour)	ΔE CIELAB 2000: Intermediate colour: ≤ 5 units
Resistance to Chalking		
Natural well washed exposure (10 years)	AS/NZS 1580.457.1 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk Rating: ≤4. Refer Notes 9 & 10
QUV (2000 hours)	ASTM G154 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk Rating: ≤4
Resistance to Solvents		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discoloration or blistering. Refer Notes 9 & 11
Resistance to Acids		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discoloration or blistering. Refer Notes 9 & 11
Resistance to Fire		
Exposure	AS/NZS 1530.3	Ignibility Index: 0 rating in scale of 0-20; Spread of Flame Index: 0 rating in scale of 0-10; Heat Evolved Index: 0 rating in scale of 0-10; Smoke Evolved Index: 0-1 rating in scale of 0-10

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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 COLORBOND® Coolroom 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.
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 25 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. Where specific Performance Requirements are deemed necessary for the reverse surface coating, a “double sided” product should be specified, in which case a topcoat of full nominal thickness will be applied.
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 AS/NZS2728 Appendix L, and also Technical Bulletin TB7). Contact nearest BlueScope sales office on appropriate rollforming 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. COLORBOND® Coolroom steel has good resistance to accidental spillage of solvents such as methylated spirits, white sprit, mineral turpentine, toluene, and trichloroethylene and dilute mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.

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