Clean COLORBOND® XRW steel

Revision 03 September 2025

Prepainted - PP

GENERAL DESCRIPTION

Clean COLORBOND® XRW steel prepainted steel, specifically designed by BlueScope to provide high durability, premier roofing and wall cladding material for general use. To determine if warranties apply, please contact your nearest BlueScope sales office for advice.

TYPICAL USES

General exterior architectural uses, for example, roofing, wall cladding, rainwater goods as well as other building products such as garage doors and infill panels. For material selection advice, please contact your nearest BlueScope sales office.

STANDARD

AS/NZS 2728:2013 Prefinished/Prepainted sheet metal products for interior/exterior building applications – Performance requirements.

AS 1397:2013 Continuous hot-dip metallic coated steel sheet and strip – Coatings of Zinc and Zinc alloy with aluminium and magnesium.

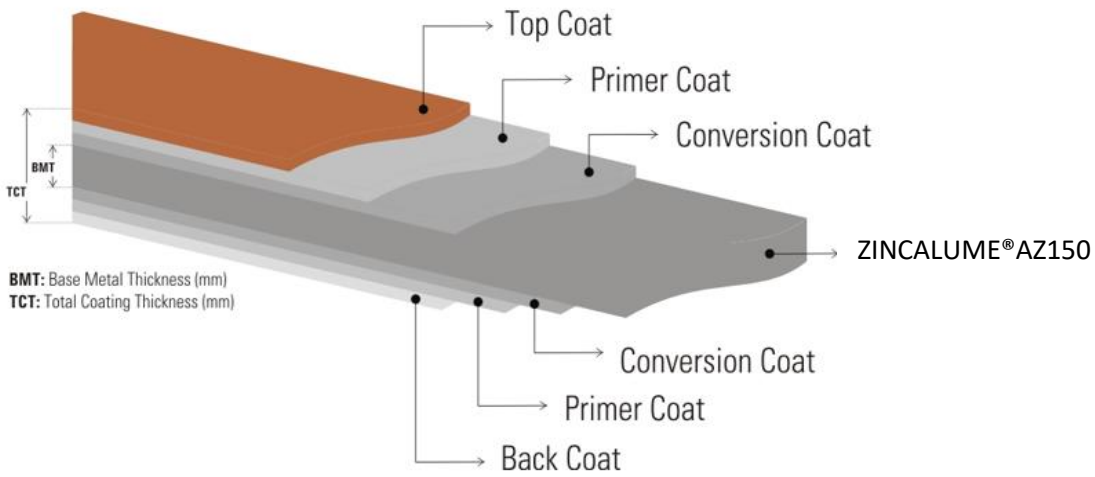
INDONESIA STANDARD

SNI 4096:2007 Baja lembaran dan gulungan lapis paduan Aluminium – seng (Bj.L AS)

SNI 8305:2019 Baja lembaran dan gulungan lapis paduan Aluminium-Seng dan lapis paduan Aluminium-Magnesium lapis cat warna (Bj. LAS Warna – Bj. LAM Warna)

PRODUCT INFORMATION

SUBSTRATE	ZINCALUME® G550 AZ150 (Aluminium/Zinc alloy-coated steel) (Refer to Note 8)
	ZINCALUME® G300 AZ150 (Aluminium/Zinc alloy-coated steel) (Refer to Note 8)
PRETREATMENT	Corrosion-resistant proprietary conversion coating
PRIMER COAT	Universal corrosion inhibitive primer. Nominal dry film thickness 5µm each side
FINISH COAT	Custom formulated super polyester paint system with high-performance pigments. Nominal dry film thickness 20µm on the top or weather side. The finish coat can, if required, be applied to both sides to provide a double-sided product.
BACKING COAT	Custom formulated Shadow Grey. Nominal dry film thickness 5µm
COLOUR	A range of standard colours is available. Other specifically required colours may be available on request.



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Guaranteed Properties of Steel Based

Mechanical Properties	Guaranteed Minimum	
	G300	G550
Yield Strength (MPa)	300	550
Tensile Strength (MPa)	340	550
Elongation (% - on 50mm)	20	2

Chemical Properties of Steel Based

Elements	Guaranteed Max (%)	
	G300	G550
Carbon	0.30	0.20
Mangan	1.60	1.20
Phosporus	0.040	0.040
Sulphur	0.035	0.030

Fabricating Performance

Method	G300	G550
Bending	Excellent	Fair
Drawing	Limited	Poor
Pressing	Good	Poor
Roll Forming	Excellent	Excellent
Painting (pretreatment)	Excellent	Excellent
Welding	Good	Good

Dimensional Capabilities

Thickness (BMT)	Width Range	
	G300	G550
0.30	914, 1219	914, 1219
0.35	914, 1219	914, 1219
0.40	914, 1219	914, 1219
0.45	914, 1219	914, 1219
0,60	914, 1219	914, 1219
0,70	914, 1219	914, 1219

Notes:

- The dimensions are a reflection of the technical capability to produce.
- Supply condition may be subject to dimensional restrictions and is subject to PT. NS BlueScope Indonesia Sales and Marketing confirmation.
- Typical mechanical properties are based on typical dispatched to Customer.
- For requirements outside the standard products range, please your local Sales Office.

RESISTANCE TO DIRT STAINING

The change in the appearance of normal coil-coated products due to weathering is expected to be minimal within one year of installation. Yet, the overall appearance change can be obvious in some environments, not as a result of changes in the paint system itself, but as a result of severe dirt pick-up which causes darkening of its surface. These effects are more pronounced on light colours than on dark colours. In some instances, atmospheric dirt can become engrained into the surface of the paint, causing dirt staining which is difficult to remove.

Clean COLORBOND® XRW steel is **resisting** to **dirt pick-up** and more importantly, **RESISTANT** to **DIRT STAINING.**

A weathering test has been conducted where the appearance changes of normal coil coated products and Clean COLORBOND® XRW steel is monitored. The samples were placed in environments where atmospheric dirt is known to cause dirt staining problems. The clean technology has shown clear benefits over normal coil coated products after one year of exposure to rainfall where there's no cleaning conducted, as shown in TABLE 1 below.

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TABLE 1 – 12 MONTHS SAMPLE EXPOSURE COMPARISONS

COLOUR SHADE	TYPICAL APPEARANCE CHANGE (ΔL UNITS CIELAB 2000)	
	NORMAL COIL-COATED PRODUCTS	Clean COLORBOND® XRW steel
Light (e.g. Off White)	10 – 20	≤ 5
Intermediate (e.g. Gull Grey)	5 - 10	≤ 3

EXPECTED PRODUCT SERVICE PERFORMANCE

The appearance of Clean COLORBOND® XRW steel and other coil-coated products can change over time on exterior weathering not only due to dirt pick-up but also to changes in the paint system itself and resulting in gloss loss, chalking and fading of pigmentation. Colour change, which is largely due to the changes in pigmentation will depend on the colour shade chosen. It is measured using a spectrophotometer, according to ASTM D-2244 on surfaces thoroughly cleaned of dirt, oxidised film and foreign contaminants. The typical appearance changes of standard Clean COLORBOND® XRW steel colours in normal environments after 12 years of service are given in TABLE 2.

TABLE 2 – EXPECTED COLOUR CHANGE AFTER 10 YEARS IN NATURAL WELL-WASHED EXPOSURE (AS/NZS 1580.457.1 & ASTM D-2244)

COLOUR SHADE	TYPICAL APPEARANCE CHANGE (ΔE UNITS CIELAB 2000)
Light (e.g. Off White)	≤ 6
Intermediate (e.g. Gull Grey)	≤ 9
Dark (e.g. Sonata Blue)	≤ 15

Notes

Refer Note 9 & 10

ATTRIBUTES TESTED DURING MANUFACTURE

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

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PRODUCT ATTRIBUTES

PROPERTY	TEST & EVALUATION METHOD (S)	RESULTS
Resistance to Abrasion		
Scratch	AS2331.4.7	Typically, 1500 g
Flexibility		
T-bend	ASTM D4145	Maximum 10T (no cracking). Refer Note 7
Adhesion		
Natural well washed exposure (15 years)	AS/NZS 1580.457.1; AS/NZS 1580.481.1.10	No flaking or peeling. Refer Notes 9 & 10
Resistance to Humidity		
Cleveland (500 hours)	ASTM D4585; AS/NZS 1580.481.1.9 (Blisters); AS 1580.408.4 (Adhesion); AS/NZS 1580.481.3 (Undercutting Corrosion)	Blister density: ≤3. Blister size: ≤S2. Undercut at scribed lines. No loss of adhesion or corrosion of base metal
Resistance to Corrosion		
Cyclic corrosion (2000 hours)	AS/NZS2728 (Appendix I), AS/NZS 1580.481.1.9 (Blisters); AS 1580.408.4 (Adhesion); AS/NZS 1580.481.3 (Undercutting Corrosion)	Blister density: ≤2. Blister size: ≤S2. Undercut at scribed lines: ≤1. 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 discolouration or blistering. Refer Notes 2, 9 & 11
Resistance to Acids		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discolouration or blistering. Refer Notes 2, 9 & 11
Resistance to Alkalis		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discolouration or blistering. Refer Notes 2, 9 & 11
Fire Hazard Properties		
Simultaneous determination of ignitability, flame propagation, heat release and smoke release	AS/NZS 1530.3 (Ignitability index, spread of flame index, Heat evolved index, Smoke developed index)	Ignitability 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
Fire Classification	BS 476-6 (Fire propagation); BS 476-7 (Surface Spread of flame)	Fire propagation index, I <12; sub-index, i_t <6; Surfaced spread of flame: Class 1. Classification: Class 0
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 Clean COLORBOND® XRW 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 the selection of the most appropriate Clean COLORBOND® XRW steel product, please refer to Technical Bulletins TB1a, TB1b, CTB16, CTB21, CTB22.
3. Customers should use the 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 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 the 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 roll forming lubricants.
10. Values quoted are for panels exposed in accordance with AS/NZS2728. Variations for in-situ performance may occur due to the complexity of building design and location.
11. Clean COLORBOND® XRW steel has good resistance to accidental spillage of solvents such as methylated spirits, white spirit, mineral turpentine, toluene, and trichloroethylene and dilutes mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.

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