

COLORBOND® Stainless steel

Designed for: *Extreme Environments*

Revision 11, Aug 2011. This literature supersedes all previous issues.

GENERAL DESCRIPTION

COLORBOND® Stainless prepainted steel, specifically designed by BlueScope Steel Limited, provides the ultimate in corrosion resistance and weatherability in exterior applications. To determine if warranties apply, please visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office for advice

TYPICAL USES

Roofing and walling, particularly suited to very severe marine and industrial environments in which it provides excellent corrosion resistance, gloss retention, and colour stability. For material selection advice, please contact your nearest BlueScope Steel Sales office.

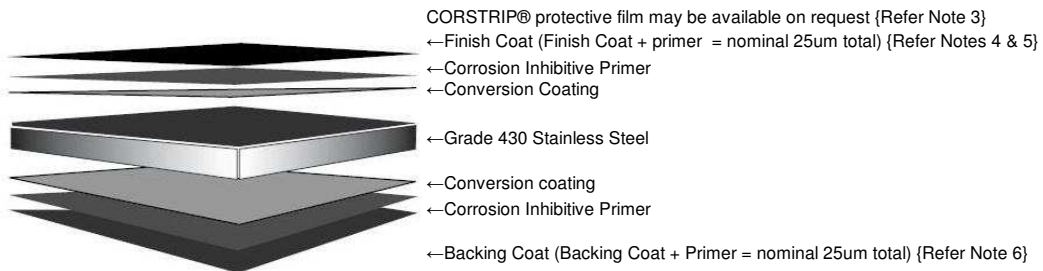
AUSTRALIAN STANDARDS

Substrate JIS G 4305 (Japanese Standard)
Paint Coating - AS/NZS 2728 Type 6

PREFERRED SUBSTRATES

Grade 430 Stainless Steel available as 430SS550 and 430SS300. (Refer Note 8)

Please refer to current price list or BlueScope Steel Limited State Sales Office for availability of colours and dimensions.



PRODUCT ATTRIBUTES

Property	Test & Evaluation Method(s)	Results
Flexibility		
T-bend	ASTM D4145-83	Maximum 5T (no cracking). Refer Note 7
Resistance to abrasion		
Taber Abraser - 1000g CS-10 wheels	AS/NZS 1580.403.2; NCCA Tech. Bull. 4.3.2 (test & eval)	≤20mg per 100 cycles
Scratch	AS 2331.4.7 (test & eval)	Typically 2000g
Falling sand	ASTM D968	60 litres/25µm
Adhesion		
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1	No flaking or peeling. Refer Notes 9 & 10.
Resistance to humidity		
Cleveland (500 hours)	ASTM D4585; NCCA Tech. Bull 5.4.5 & 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 (2000 hours)	AS/NZS 2728 (App. I), ASTM B117; AS 2331.3.1; NCCA Tech. Bull. 5.4.6 & AS/NZS 1580.481.1.9 (Blisters); AS 1580.408.4 (Adhesion)	Blister density: ≤2 Blister size: ≤S3 Undercut from a score: ≤2mm No loss of adhesion or corrosion. Refer Note 2.
Kesternich (SO ₂) (50 cycles)	DIN 50018	Edge creep: Slight (≤1mm) Blisters: Nil. Refer Note .
Resistance to colour change		
QUV (2000 hours)	ASTM G154 & ASTM D2244 (Colour)	Δ E cielab 2000: Intermediate colour: ≤1 unit
Natural well washed exposure (10 yrs) {Refer Notes 9 & 10}	AS/NZS 1580.457.1 & ASTM D2244 (Colour)	Δ E cielab 2000: light colour ≤3 units Int. colour: ≤3.5 units Dark colour: ≤5 units
Altrac 1 x 10 ⁶ Langleys		Δ E cielab 2000: ≤1 unit
Resistance to chalking		
QUV (2000 hours)	ASTM G154 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk rating: 0 - 1 range
Natural well washed exposure (20 yrs)	AS/NZS 1580.457.1 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk rating: ≤2. Refer Notes 9 & 10
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 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 & 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 & 11.
Resistance to fire		
Exposure	AS/NZS 1530.3 (test & eval)	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
Resistance to heat		
Exposure 100°C continuous (500 hrs)	ASTM D2244 (Colour)	Colour change Δ E cielab 2000: ≤3 units

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Continued

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ATTRIBUTES TESTED DURING MANUFACTURE

Property	Test & Evaluation Method(s)	Results
Adhesion		
Reverse Impact	AS/NZS 2728 (App. E); NCCA Tech. Bull. 4.2.6 (test & eval)	≥10 joules
T-bend	AS/NZS 2728 (App. F); NCCA Tech. Bull. 4.2.8 (test & eval)	Maximum 6T. Refer Note 7
Hardness		
Pencil	AS/NZS 1580.405.1; NCCA Tech. Bull. 4.2.5 (test & eval)	B or harder
Specular gloss		
60° meter	AS/NZS 1580.602.2; ASTM D523 (test & eval)	Nominal ± 10 units

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 Steel to extend, modify or otherwise affect any stated product warranty. To find out more, please visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office for advice.
- 2 For selection of the most appropriate COLORBOND® steel product, please refer to technical bulletins TB1a, TB1b, CTB16, CTB21 and CTB22. Before purchase, you should check on suitability by visiting the BlueScope Steel website, or by contacting your nearest BlueScope Steel Limited Sales office for advice.
- 3 The CORSTRIP® protective film should be removed from the painted steel strip immediately on installation. Sunlight can increase adhesion of the protective film to the painted surface if left uncovered outside.
- 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 not generally applicable to Backing coats. Where specific Performance Requirements are deemed necessary for the reverse surface coating, "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 x10 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 deg 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/NZS 2728 Appendix L, and also technical bulletin TB7). Contact your nearest BlueScope Steel Sales office to obtain advice on appropriate rollforming lubricants.
- 10 Values quoted are for panels exposed in accordance with AS2728. Variations for in-situ performance may occur due to complexity of building design and location.
- 11 COLORBOND® Stainless steel has good resistance to accidental spillage of substances such as paint thinners, cleaning products, mineral acids and alkalis. All spillages however, should be removed as soon as possible in accordance with the advice given in the appropriate safety data sheet

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Please ensure you have the current datasheet for this product as displayed at www.bluescopesteel.com

BlueScope Steel Limited

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