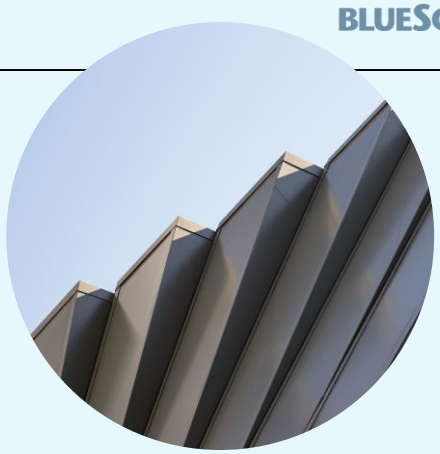
Coated Steel – Prepainted
Data Sheet

September 2019. This literature supersedes all previous issues



COLORBOND® Ultra steel

General description
COLORBOND® Ultra prepainted steel, specifically designed by BlueScope combines long term durability and excellent corrosion resistance.

Typical uses
Exterior building profiles in applications requiring excellent corrosion resistance and long term durability. Suited to moderately severe marine and industrial environments. To determine if warranties apply or for material selection advice, please visit colorbond.com and steel.com.au or contact Steel Direct.

Australian and International standards
Substrate – AS 1397:2011
Paint Coating – AS/NZS 2728:2013 Type 4
ISO 9001:2015 Quality System certified

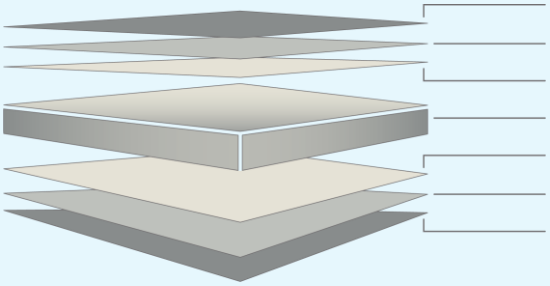
Preferred substrates

AM150 G550S steel with Activate® technology. AM150 G300S steel with Activate® technology {Refer Note 8}

For substrate properties please refer to the relevant Metallic (AM) Coated steel datasheets or AS 1397:2011.

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

CORSTRIP® protective film may be available on request {Refer Note 3}



Finish Coat (Finish Coat + Primer = nominal 25µm) {Refer Notes 4 & 5}
Universal Corrosion Inhibitive Primer
Conversion Coating
Aluminium / Zinc / Magnesium alloy-coated steel with Activate® technology substrate
Conversion Coating
Universal Corrosion Inhibitive Primer
Backing Coat (Backing Coat + Primer = nominal 10µm total) {Refer Note 6}

Attributes tested during manufacture

Property	Test & Evaluation Method(s)	Results
Adhesion		
Reverse Impact	AS/NZS 2728:2013 (App. E)	≥10 joules
T-bend	AS/NZS 2728:2013 (App. F)	Maximum 6T. Refer Note 7.
Hardness		
Pencil	AS/NZS 1580.405.1:1996	HB or harder
Specular gloss		
60° meter	AS/NZS 1580 602.2:1995; ASTM D523-14 (2018) (test & eval)	Nominal ± 10 units

Product Attributes

Property	Test & Evaluation Method(s)	Results
Flexibility		
T-bend	ASTM D4145-10 (2018)	Maximum 10T (no cracking.) Refer Note 7.
Resistance to abrasion		
Scratch	AS 2331.4.7-2006	Typically 2000g
Adhesion		
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1:1996 AS/NZS 1580.481.1.10:1998	No flaking or peeling. Refer Notes 9 & 10.
Resistance to humidity		
Cleveland (500 hours)	ASTM D4585/D4585M-18; AS/NZS 1580.481.1.9:1998 (Blisters); AS 1580.408.4-2004 (Adhesion)	Blister density: ≤3. Blister size: ≤S2. Undercut from score: ≤2mm. No loss of adhesion or corrosion of base metal.
Resistance to corrosion		
QFog (2000 hours)	AS/NZS 1580.481.1.9:1998 (Blisters); AS 1580.408.4-2004 (Adhesion), AS 1580.481.3-2002 (Undercutting, Corrosion)	Blister density: ≤2. Blister size: ≤S2. Undercut from score: ≤1mm. No loss of adhesion or corrosion of base metal. Refer Note 2.
Resistance to colour change		
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1:1996 & ASTM D2244-16 (Colour)	ΔE CIElab 2000: Light colour: ≤4 units. Intermediate colour: ≤6 units. Dark colour:≤10 units. Refer Notes 9 & 10.
QUV (2000 hours)	ASTM G154-16 & ASTM D2244-16 (Colour)	ΔE CIElab 2000: Intermediate colour: ≤ 5 units.
Resistance to chalking		
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1:1996 & AS/NZS 1580.481.1.11:1998 (Chalk Method B)	Chalk rating: ≤ 4. Refer Notes 9 & 10.
QUV (2000 hours)	ASTM G154-16 & AS/NZS 1580.481.1.11:1998 (Chalk Method B)	Chalk rating: ≤4.
Resistance to solvents, acids, alkalis		
Exposure	ASTM D1308-02 (2013) (3.1.1); ASTM D2244-16 (Colour); AS/NZS 1580.481.1.9:1998 (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 1530.3:1999)	Ignitability index (0 – 20)	0
	Spread of flame index (0 – 10)	0
	Heat evolved index (0 – 10)	0
	Smoke developed index (0 – 10)	2
NCC non-combustible material concessions (NCC 2019; AS/NZS 1530.3:1999)	National Construction Code, Building Code of Australia 2019; Volume 1: Part C1.9.e, and Volume 2: Part 3.7.1.1.e	May be used wherever a non-combustible material is required
	AS/NZS 1530.3:1999	
Combustibility test for materials (steel substrate) (AS 1530.1-1994)	AS 1530.1-1994	Not deemed combustible (steel substrate)
Resistance to heat		
Exposure 100°C continuous (500 hrs)	ASTM D2244-16 (Colour)	Colour change: ΔE CIElab 2000: ≤3 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 to extend, modify or otherwise affect any stated product warranty. To find out more, please visit the BlueScope website or contact Steel Direct for advice.
2. Product may not be suitable if it is intended to use COLORBOND® Ultra steel in an exterior application within 200m 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. 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 website or by contacting Steel Direct 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. 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°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 2728:2013 Appendix L, and also Technical Bulletin TB7). Contact Steel Direct to obtain advice on appropriate rollforming lubricants.
10. Values quoted are for panels exposed in accordance with AS/NZS 2728:2013. Variations for in-situ performance may occur due to complexity of building design and location.
11. COLORBOND® Ultra steel has good resistance to accidental spillage of solvents such as methylated spirits, white spirit, mineral turpentine, toluene, trichloroethylene and dilute mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.

Colorbond® ULTRA

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