

# COLORBOND® Ultra steel

**Designed for: Exterior Roofing and Walling**

Revision 5, Mar 2009. This literature supersedes all previous issues.

## GENERAL DESCRIPTION

COLORBOND® Ultra pre-painted steel, specifically designed by BlueScope Steel Limited, combines long term durability and exceptional corrosion resistance. To determine if warranties apply, please visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office for advice

## TYPICAL USES

Exterior building profiles in applications requiring excellent corrosion resistance and long term durability. Suited to moderate to severe marine, and industrial, environments. For material selection advice, please contact your nearest BlueScope Steel Sales office.

## AUSTRALIAN STANDARDS

Substrate - AS 1397  
Paint Coating - AS/NZS 2728 Type 4

## PREFERRED SUBSTRATES

ZINCALUME® G550S AZ200 steel ZINCALUME® G300S AZ200 steel (Refer Note 8)

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



CORSTRIP® protective film may be available on request (Refer Note 3)

← Finish Coat (Nominal 20µm) (Refer Notes 4 & 5)

← Corrosion Inhibitive Primer (Nominal 5µm)

← Conversion Coating

← ZINCALUME® - Zinc/Aluminium Alloy Coated Steel Substrate

← Conversion coating

← Corrosion Inhibitive Primer (Nominal 5µm)

← Backing Coat (Bass Grey, Nominal 10µm) (Refer Note 6)

## EXPECTED PRODUCT SERVICE PERFORMANCE

Property	Test & Evaluation Method(s)	Results
<b>Flexibility</b>		
T-bend	ASTM D4145-83	Maximum 7T (no cracking). Refer Note 7
<b>Resistance to abrasion</b>		
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
<b>Adhesion</b>		
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1	No flaking or peeling. Refer Notes 9 & 10.
<b>Resistance to humidity</b>		
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
<b>Resistance to corrosion</b>		
Salt spray (1000 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 <sub>2</sub> ) (50 cycles)	DIN 50018	Edge creep: <4mm. Refer Note 2.
<b>Resistance to colour change</b>		
QUV (2000 hours)	ASTM G154 & ASTM D2244 (Colour)	Δ E cielab 2000: Intermediate colour: ≤5 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 ≤4 units Int. colour: ≤6 units Dark colour: ≤10 units
<b>Resistance to chalking</b>		
QUV (2000 hours)	ASTM G154 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk rating: ≤4
Natural well washed exposure (10 yrs)	AS/NZS 1580.457.1 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk rating: ≤4. Refer Notes 9 & 10
<b>Resistance to solvents</b>		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discolouration or blistering. Refer Notes 9 & 11.
<b>Resistance to acids</b>		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discolouration or blistering. Refer Notes 2 & 11.
<b>Resistance to alkalis</b>		
Exposure	ASTM D1308 (3.1.1) & ASTM D2244 (Colour); AS/NZS 1580.481.1.9 (Blisters)	No discolouration or blistering. Refer Notes 2 & 11.
<b>Resistance to fire</b>		
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
<b>Resistance to heat</b>		
Exposure 100°C continuous	ASTM D2244 (Colour)	Colour change Δ E cielab 2000: ≤3 units

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Continued

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## LINE TESTED PROPERTIES

Property	Test & Evaluation Method(s)	Results
<b>Adhesion</b>		
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
<b>Hardness</b>		
Pencil	AS/NZS 1580.405.1; NCCA Tech. Bull. 4.2.5 (test & eval)	HB or harder
<b>Specular gloss</b>		
60° meter	AS/NZS 1580.602.2; ASTM D523 (test & eval)	Nominal ± 10 units

## IMPORTANT NOTES

- 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.
- 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 Steel website, or by contacting your nearest BlueScope Steel Limited Sales office for advice.
- 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.
- Finish Coat - the coating applied to the exposed surface of the prepainted coil which is expected to meet the Performance Requirements.
- The product is supplied with a nominal 25 unit (60°) gloss Finish Coat
- 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.
- The minimum recommended bend radii for forming processes are specified by the maximum T-bend adhesion and T-bend flexibility values, to avoid paint adhesion and cracking issues, respectively.
- 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.
- 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.
- Values quoted are for standard colours of COLORBOND® Ultra steel under normal well washed conditions of exposure.
- COLORBOND® Ultra 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](http://www.bluescopesteel.com)

## BlueScope Steel Limited

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