

COLORBOND® steel

Designed for: Exterior Roofing and Walling

Revision 7, November 2003

This literature supersedes all previous issues

GENERAL DESCRIPTION

COLORBOND® prepainted steel, specifically designed by BlueScope Steel Limited to provide a high durability, premier cladding and roofing material for general use.

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Roofing and accessories, wall cladding, rain water goods.

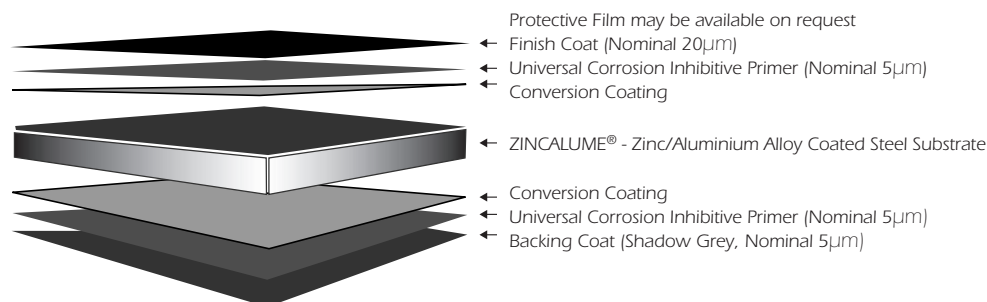
AUSTRALIAN STANDARD

Substrate – AS 1397

Paint Coating – AS/NZS 2728:1997 Type 3-4

PREFERRED SUBSTRATES ZINCALUME® G550S AZ150 steel
ZINCALUME® G300S AZ150 steel

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



The finish coat can, if required, be applied to both sides to provide a 'double sided' product. The product is supplied with a nominal 25% (60°) gloss.

The protective film (CORSTRIP®) 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. Refer to brochure 'The smart way to design, install and maintain COLORBOND® steel.'

LINE TESTED PROPERTIES

Property	Measured By	Test Method	Results
Hardness	Pencil	AS/NZS 1580 405.1 NCCA Tech. Bull. 4.2.5	HB or harder
Adhesion	Reverse Impact	AS/NZS 2728 (App. E) NCCA Tech. Bull. 4.2.6	≥10 joules
	T-bend	AS/NZS 2728 (App. F) NCCA Tech. Bull. 4.2.8	Maximum 5T
Specular gloss	60° meter	AS/NZS 1580 602.2 ASTM D523	15 - 35%

EXPECTED PRODUCT SERVICE PERFORMANCE

Property	Measured After	Test Method	Results
Resistance to colour change	QUV (2000 hours)	ASTM G53	Δ E Hunterlab: Intermediate colour: ≤5 unit, eg Wheat
	Natural well washed exposure (15 years)	ASTM D2244	Δ E Hunterlab: Light colour: ≤6 units Int. colour: ≤9 units Dark colour: ≤15 units
Resistance to chalking	QUV (2000 hours)	ASTM G53 AS/NZS 1580 481.1.1.1 (Method B)	Rating: ≤4
	Natural well washed exposure (10 years)	AS/NZS 1580 481.1.1.1 (Method B)	Chalk rating: ≤4
Resistance to corrosion	Salt spray (1000 hours)	ASTM B117 AS 2331.3.1 NCCA Tech. Bull. 5.4.6	Blister density: ≤2 Blister size: ≤S2 Undercut from a score: ≤2mm No loss of adhesion
	Kesternich (SO ₂) (50 cycles)	DIN 50018	Edge creep: <4mm
Resistance to humidity	Cleveland (1000 hours)	NCCA Tech. Bull. 5.4.5	Blister density: ≤2 Blister size: ≤S2 No loss of adhesion
Resistance to acids	Exposure	ASTM D1308 (3.1.1)	No discolouration No blistering

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Continued

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EXPECTED PRODUCT SERVICE PERFORMANCE (cont.)

Property	Measured After	Test Method	Results
Resistance to alkalis	Exposure	ASTM D1308 (3.1.1)	No discolouration No blistering
Resistance to solvents	Exposure	ASTM D1308 (3.1.1)	No discolouration No blistering
Adhesion	Natural well washed exposure (15 years)	–	No flaking or peeling
Resistance to heat	Exposure 100°C continuous	ASTM D2244	Colour change Δ E Hunterlab: ≤3 units
Resistance to fire	Exposure	AS/NZS 1530.3	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
Flexibility	T-bend	AS 2935 (App. E) NCCA Tech. Bull. 4.2.8	Maximum 7T (no cracking)
Resistance to abrasion	Taber Abraser - 1000g CS 10 wheels	AS/NZS 1580 403.2 NCCA Tech. Bull. 4.2.5	≤20mg per 100 cycles
	Scratch	AS/NZS 1580 403.1	Typically 2000g

NOTE

- ① For selection of the most appropriate COLORBOND® steel product refer to 'Steel Roofing Products – Selection Guide Technical Bulletin TB-1a', and 'Steel Walling Products – Selection Guide Technical Bulletin TB-1b'.
- ② Values quoted are for standard colours of COLORBOND® steel under normal well washed conditions of exposure. Product may not be suitable if it is intended to use COLORBOND® steel in an exterior application within 1 km of salt marine locations, severe industrial or abnormally corrosive environments, or in applications where it will be wholly or partly buried in the ground. Before purchase, you should check on suitability through contacting your nearest BlueScope Steel Limited Sales office for advice.
- ③ COLORBOND® 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.
- ④ 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.
- ⑤ Improper storage or the use of non-approved roll-forming lubricants may adversely affect colour. Material which becomes wet while in stacks or bundles must be separated and dried (refer AS/NZS 2728 Appendix K).
- ⑥ The Backing coat is not recommended for exposure to direct sunlight. Where the reverse side will be exposed to direct sunlight, the "double sided" product is recommended.
- ⑦ Definitions
 - Finish coat - the coating applied to the exposed surface of the prepainted coil or sheet which is expected to meet the Performance Requirements.
 - Backing coat - a thin (pigmented or clear) coating applied to the reverse or unexposed surface of the prepainted coil or sheet for the purpose of protection against damage to the topcoat during shipment and storage. It also gives additional durability to the reverse or unexposed 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.

COLORBOND®, ZINCALUME® and CORSTRIP® are registered trade marks of BlueScope Steel Limited.

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

BlueScope Steel Limited

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