

Coated Steel – Prepainted Data Sheet



September 2019. This literature supersedes all previous issues

Superior Gloss Articles prepainted steel

General description

Superior Gloss Articles prepainted steel has been designed by BlueScope to provide a durable, mar-resistant, high quality surface for the non-critical interior appliance products.

Typical uses

Laundry cabinets, light fittings, commercial refrigeration shells. For material selection advice, please contact Steel Direct.

Australian and International standards

Substrate - AS 1397:2011
ISO 9001:2015 Quality System certified

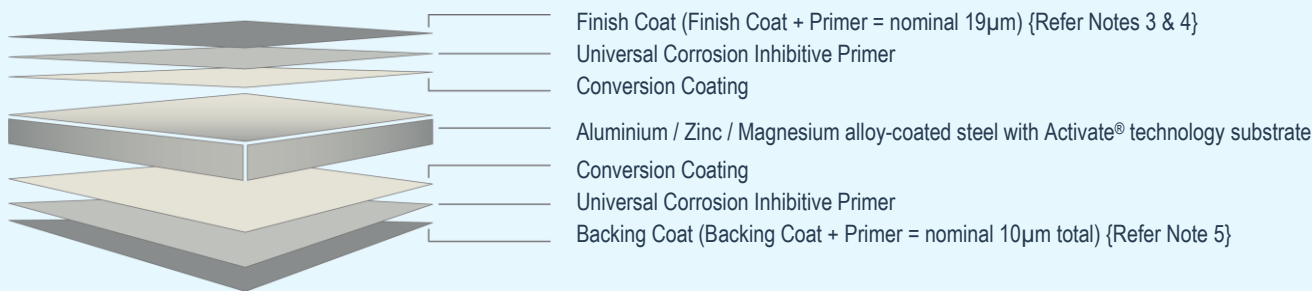
Preferred substrates

AM100 G300S steel with Activate® technology {Refer Note 7}

For substrate properties please refer to the relevant Metallic (AM) Coated steel datasheet 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 2}



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 6.
Hardness		
Pencil	AS/NZS 1580.405.1:1996	H or harder
Specular gloss		
60° meter	AS/NZS 1580.602.2:1995; ASTM D523-14 (2018) (test & eval)	≥70 units

Product Attributes

Property	Test & Evaluation Method(s)	Results
Flexibility		
T-bend	ASTM D4145-10 (2018)	Maximum 10T (no cracking). Refer Notes 1 & 6.
Resistance to abrasion		
Scratch	AS 2331.4.7-2006 (test & eval)	Typically 2000g
Resistance to solvents		
Exposure	ASTM D1308-02 (2013) (3.1.1); ASTM D2244-16 (Colour); AS/NZS 1580.481.1.9:1998 (Blisters)	No swelling or significant softening. Refer Notes 8 & 9.
Resistance reagents		
Exposure: 30 minutes with 5% sodium hydroxide, carbonate or ammonium hydroxide	ASTM D1308-02 (2013) (3.1.1)	No discolouration or blistering. Refer Note 8.
Resistance to detergents		
Exposure	-	Blister density: ≤2. Blister size: ≤S2. No loss of adhesion.
Resistance to household stains		
Exposure (24 hrs)	-	On recovery, no staining or change in gloss
Resistance to heat		
Exposure 100°C continuous (500 hrs)	ASTM D2244-16 (Colour)	No visual discolouration or loss of gloss

Important notes

1. Forming of Superior Gloss Articles prepainted steel should be avoided at temperatures below 15°C as cracking of the paint film can occur on sharp bends. At 25°C there is no cracking of the paint film when Superior Gloss Articles prepainted steel is formed at a 10T bend. Forming at higher temperatures than 25°C may allow bends less than 10T to be made without cracking the paint film.
2. 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.
3. Finish Coat - the coating applied to the exposed surface of the prepainted coil which is expected to meet the Performance Requirements.
4. The product is supplied with a nominal 80 unit (60°) gloss Finish Coat.
5. 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.
6. 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.
7. 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.
8. 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.
9. Superior Gloss Articles prepainted 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.

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For more information contact Steel Direct

