Coated Steel - Prepainted
Data Sheet

May 2023 - This literature supersedes all previous issues

Interior Furniture and Shelving prepainted steel

General description

Interior Furniture and Shelving prepainted steel (IFS) has been specifically designed by BlueScope for interior manufactured articles requiring good formability.

Typical uses

Indoor furniture, office equipment, shelving. For material selection advice, please contact Steel Direct.

Australian and International standards

Substrate - AS 1397:2021

ISO 9001:2015 Quality System certified

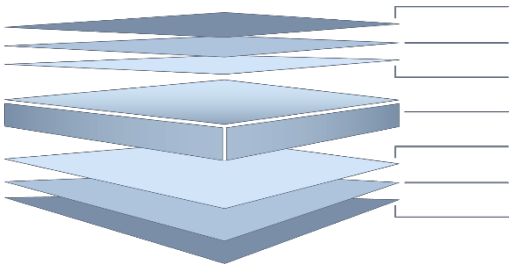
Preferred substrates

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

For substrate properties please refer to the relevant Metallic (AM) Coated steel datasheet or AS 1397:2021.

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

CORSTRIP® film may be available on request {Refer Note 2}.



Finish Coat (Finish Coat + Primer = nominal 18µm) {Refer Notes 1, 3 & 4}
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 18µm total) {Refer Note 5}

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.
Specular gloss		
60° meter	AS/NZS 1580.602.2:1995 (R2013); ASTM D523-14 (2018)	Nominal ± 10 units

Product attributes

Property	Test & Evaluation Method(s)	Results
Flexibility		
T-bend	ASTM D4145-10 (2018)	Maximum 10T (no cracking). Refer Note 6.
Resistance to abrasion		
Scratch	AS 2331.4.7-2006 (R2017)	Typically 2000g
Hardness		
Pencil	AS/NZS 1580.405.1:1996 (R2013)	HB or harder
Resistance to humidity		
Cleveland (500 hours)	ASTM D4585/D4585-18; AS/NZS 1580.481.1.9:1998 (R2013) (Blisters); AS 1580.408.4-2004 (R2019) (Adhesion)	Blister density: ≤3. Blister size: ≤S2. No loss of adhesion or corrosion. (Hot-dipped metallic coated substrates only).
Resistance to solvents, acids, alkalis		
Exposure	ASTM D1308-20 (3.1.1); ASTM D2244-21 (Colour); AS/NZS 1580.481.1.9:1998 (R2013) (Blisters)	No discolouration or blistering. Refer Notes 8 & 9.
Resistance to heat		
Exposure 100°C continuous (500 hours)	ASTM D2244-21 (Colour)	Colour change: ΔE CIEDE2000: ≤3 units

Property	Test & Evaluation Method(s)	Results
Fire hazard properties		
Simultaneous determination of ignitability, flame propagation, heat release and smoke release (AS/NZS 1530.3:1999 (R2016)) *	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 2022; AS/NZS 1530.3:1999 (R2016)) *	National Construction Code, Building Code of Australia 2022; Volume 1 Part C1, C2D10, (5) and (6)(e) and Volume 2: Section H, Part H3, H3D2, (1)(e)	May be used wherever a non-combustible material is required
	AS/NZS 1530.3:1999 (R2016)	
Combustibility test for materials (steel substrate) (AS 1530.1-1994 (R2016)) #	AS 1530.1-1994 (R2016)	Not deemed combustible (steel substrate)

* The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.
# These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

Important notes

1. Interior Furniture and Shelving prepainted steel (IFS) finishes are available in a limited number of colours by request.

2. Note occasionally strippable film may be supplied in lieu of CORSTRIP® film for operational reasons. The CORSTRIP® film/strippable 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. Please contact your relevant waste management provider to discuss requirements for recycling this type of material.

3. Finish Coat - the coating applied to the exposed surface of the prepainted coil which is expected to meet the Performance Requirements.

4. A range of Finish Coat gloss levels between 10 and 80 units (60°) may be available.

5. The finish coat is applied to both sides as standard, to provide a 'double sided' product in existing gloss ranges.

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. Interior Furniture and Shelving prepainted steel (IFS) 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.