

Prepainted - PP

GENERAL DESCRIPTION

COLORBOND® XAL Prepainted Aluminium, specifically designed by BlueScope to provide premium durability, excellent weatherability and high formality for exterior application.

TYPICAL USES

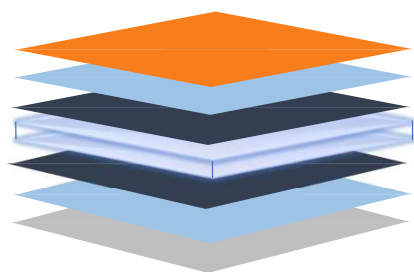
General exterior architectural uses, for example wall cladding, roofing for exterior applications. To determine if warranties apply or for material selection advice, please contact BlueScope sales office.

AUSTRALIAN STANDARD

Paint Coating - AS/NZS 2728 Type 3-4

PRODUCT INFORMATION

PREFERRED SUBSTRATE	Aluminium Alloy 3004 (Aluminium/Manganese/Magnesium)
PRETREATMENT	Corrosion resistant proprietary conversion coating.
PRIMER COAT	Corrosion Inhibitive Primer Polyurethane (PU) Nominal 5µm on the top side and Corrosion Inhibitive Primer Polyester (PE) 5µm on the backing side
FINISH COAT	Custom formulated PVDF paint system with high performance pigments. Nominal dry film thickness 20µm on the top side.
BACKING COAT	Custom formulated Shadow Grey. Nominal dry film thickness 5µm.
COLOR	A range of standard color is available. Other specifically required colors may be available on request.



- ← Finishing Coat Polyvinylidene fluoride (PVDF) (Nominal 20µm)
- ← Corrosion Inhibitive Primer Polyurethane (PU) (Nominal 5µm)
- ← Conversion Coating
- ← **Aluminium Alloy 3004 [AlMn1Mg1] H-34, H-32 Substrate**
- ← Conversion Coating
- ← Corrosion Inhibitive Primer Polyester (PE) 5µm
- ← Backing Coat (Shadow Grey, Nominal 5µm) (Refer Note 6)

DIMENSIONAL CAPABILITIES

Aluminium Alloy 3004 H-34		Aluminium Alloy 3004 H-32	
PREFERRED BASE METAL THICKNESS (mm)	MAXIMUM WIDTH (mm)	PREFERRED BASE METAL THICKNESS (mm)	MAXIMUM WIDTH (mm)
0.90 – 1.00	940	0.90 – 1.00	940
	1120		1120

Note:

- These dimensions are a reflection of technical capability to produce. Any other sizes may be available on request
- The dimensional tolerances for thickness, width flatness and camber shall be in accordance with the requirements of AS/NS1365
- Supply conditions may be subject to dimensional restrictions and is subject to BlueScope Sales and Marketing confirmation.
- Slitting and shearing available on request from BlueScope Sales Offices. For requirements outside product range please contact your local Sales Office.

NS BLUESCOPE (THAILAND) LIMITED

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ATTRIBUTES TESTED DURING MANUFACTURE

PROPERTY	TEST & EVALUATION METHOD(S)	RESULTS
Specula Gloss		
60° meter	AS/NZS 1580.602.2; ASTM D523	Nominal 25 ± 10 units
Adhesion		
Reverse Impact	AS/NZS 2728 (Appendix E)	10 joules
T-bend	AS/NZS 2728 (Appendix F)	5T or less
Hardness		
Pencil	AS 1580.405.1	B or harder

PRODUCT ATTRIBUTES

PROPERTY	TEST & EVALUATION METHOD(S)	RESULTS
Resistance to Abrasion		
Scratch	AS/NZS 1580.403.1; AS 2728	≥ 2000g.
Flexibility		
T-bend	ASTM D4145	Maximum 3T (No cracking). Refer Note 7
Adhesion		
Natural well washed exposure (15 years)	AS/NZS 1580.457.1; AS/NZS 1580.481.1.10	No flaking or peeling. Refer to Notes 9 & 10
Resistance to humidity		
Cleveland (1000 hours)	ASTM D4585; AS/NZS 1580.481.1.9 (Blisters); AS 1580.408.4 (Adhesion); AS 1580.481.3 (Undercutting, Corrosion)	Blister density ≤1, Blister size ≤S2 No loss adhesion
Resistance to corrosion		
Salt spray (1000 hours)	AS/NZS 2728 (Appendix I), ASTM B117, AS 2331.3.1, AS/NZS 1580.481.1.9 (Blisters), AS 1580.408.4 (Adhesion)	Blister density ≤1, Blister size ≤S2 Undercut from a score ≤2mm. No loss of adhesion
Resistance to Color Change		
QUV (2000 hours)	ASTM G154 & ASTM D2244 (Color)	ΔE CIE : Intermediate color : ≤ 1 units
Natural well washed exposure (10 years)	ASTM D2244 (Color)	ΔE CIE : Light color : ≤6 units; Intermediate color : ≤7 units; Dark color : ≤ 10 units.
Resistance to Chalking		
Natural well washed exposure (10 years)	AS/NZS 1580.457.1 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk Rating : ≤2 Refer Notes 9 & 10
QUV (2000 hours)	ASTM G154 & AS/NZS 1580.481.1.11 (Chalk Method B)	Chalk Rating : 0-1
Resistance to Solvents, Acids, Alkalis		
Exposure	AS/NZS 2728; ASTM G53, AS/NZS 1580.481.1.11	No discoloration or blistering. Refer Notes 9 & 11
Resistance to heat		
Exposure 100°C continuous (500 hours)	ASTM D2244 (Color)	Color Change ΔE CIE : ≤ 3 units
Fire Hazard Properties		
Simultaneous determination of ignitability, flame propagation, heat release and smoke release	AS/NZS 1530.3 (Ignitability index; Spread of flame index; Heat evolved index; Smoke developed index)	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.

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IMPORTANT INFORMATION

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 contact your nearest BlueScope sales office.
2. If it is intended to use Colorbond® XAL in an exterior application within 1km 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, please contact your nearest BlueScope sales office for specialized advice. For selection of the most appropriate Colorbond® XAL product, please refer to Technical Bulletins TB1a, TB1b, CTB16, CTB21, and CTB22.
3. Customers should use product promptly (within 6 months) to avoid the possibility of storage related corrosion.
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, but for aesthetic reasons is not recommended for exposure to sunlight. Performance Requirements are generally not applicable to backing coats.
7. The minimum internal bend diameters for forming processes to achieve no paint cracking (visible using x 10 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 color 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/NZS2728 Appendix L, and also Technical Bulletin TB7). Contact nearest BlueScope sales office on appropriate roll-forming lubricants.
10. Values quoted are for panels exposed in accordance with AS/NZS2728. Variations for in-situ performance may occur due to complexity of building design and location.
11. Colorbond® XAL has good resistance to accidental spillage of solvents such as methylated spirits, white spirit, mineral turpentine, toluene, and trichloroethylene and dilute mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.