# Colorbond® Pearlescent

Sep 2021
This literature supersedes all previous issues

## Prepainted - PP

### GENERAL DESCRIPTION
Colorbond® Pearlescent prepainted steel, specifically designed by BlueScope to provide an aesthetically distinctive " Metallic" effect.

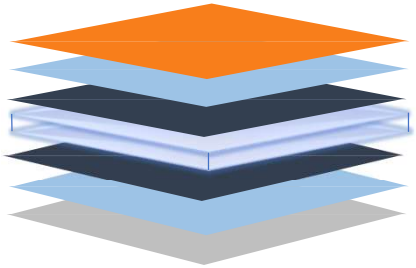
### TYPICAL USES
Exterior application such as prestigious roofing and wall cladding, architectural panels and building accessories. To determine if warranties apply or for material selection advice, please contact your nearest BlueScope sales office.

### AUSTRALIAN STANDARD
Substrate - AS 1397
Paint Coating - AS/NZS 2728 Type 3-4

### THAI INDUSTRIAL STANDARD
Substrate - TIS 2228-2559
Paint Coating - TIS 2753-2559

## PRODUCT INFORMATION

| | |
|---|---|
| **PREFERRED SUBSTRATE** | Zincalume® G550S AZ150 steel (Aluminium/Zinc alloy-coated steel) |
| | Zincalume® G300S AZ150 steel (Aluminium/Zinc alloy-coated steel) (Refer Note 8) |
| **PRETREATMENT** | Corrosion resistant proprietary conversion coating |
| **PRIMER COAT** | Universal corrosion inhibitive primer. Nominal dry film thickness 5µm each side |
| **FINISH COAT** | Custom formulated polyester paint system with high performance pigments. Nominal dry film thickness 20µm on the top or weather side. The finish coat can, if required, be applied to both sides to provide a double-sided product. |
| **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 (Nominal 20µm) (Refer Note 4&5)
← Corrosion Inhibitive Primer Polyester (PE) 5µm
← Conversion Coating
← Zincalume® AZ150 steel Substrate
← Conversion Coating
← Corrosion Inhibitive Primer Polyester (PE) 5µm
← Backing Coat Polyester (Shadow Grey, Nominal 5µm) (Refer Note 6)

## DIMENSIONAL CAPABILITIES

| ZINCALUME® G550S AZ150 STEEL | | ZINCALUME® G300S AZ150 STEEL | |
|---|---|---|---|
| Base Metal thickness range (mm) | Maximum Width (mm) | Base Metal thickness range (mm) | Maximum Width (mm) |
| 0.30 - 0.70 | 1260 | 0.30 - 0.70 | 1260 |
| 0.71 – 0.80 | 1220 | 0.71 – 0.80 | 1220 |
| 0.81 – 1.00 | 914 | 0.81 – 1.00 | 914 |

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.

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### ATTRIBUTES TESTED DURING MANUFACTURE

| PROPERTY | TEST & EVALUATION METHORD (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) | Maximum 5T. Refer Note 7 |
| **Hardness** | | |
| Pencil | AS 1580.405.1 | HB or harder |

### PRODUCT ATTRIBUTES

| PROPERTY | TEST&EVALUATION METHOD(S) | RESULTS |
|---|---|---|
| **Resistance to Dirt Staining** | | |
| Natural well washed exposure (12 months) | AS/NZS 1580.457.1 & ASTM D2244 (cleaned) | ΔL : Light color: ≥ -4 units; Intermediate color; ≥ -3 units; Dark color ≥ -2 unit. |
| **Resistance to Abrasion** | | |
| Scratch | AS 2331.4.7 | Typically, 2000g. |
| **Flexibility** | | |
| T-bend | ASTM D4145 | Maximum 7T (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 (500hours) | ASTM D4585; AS/NZS 1580.481.1.9(Blisters); AS 1580.408.4 (Adhesion); AS 1580.481.3 (Undercutting, Corrosion) | Blister density:≤2. Blister size: ≤S2. No loss of adhesion or corrosion. |
| **Resistance to corrosion** | | |
| Cyclic corrosion (2000hours) | AS/NZS 2728 (Appendix I), AS/NZS 1580.481.1.9(Blister); AS 1580.408.4 (Adhesion); AS 1580.481.3 (Undercutting, Corrosion) | Blister density:≤2. Blister size: ≤S2. Undercut at scribed lines: :≤2mm. No loss of adhesion or corrosion. Refer Note 2 |
| **Resistance to Color Change** | | |
| QUV (2000 hours) | ASTM G154 & ASTM D2244 (Color) | ΔE : Intermediate color :≤ 9 units |
| Natural well washed exposure (10 years) | ASTM D2244 (Color) | ΔE : Light color: ≤6 units; Intermediate color: ≤9 units; Dark color : ≤ 15 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 : 2 |
| **Resistance to Solvents, Acids, Alkalis** | | |
| Exposure | ASTM D 1308 (3.1.1) & ASTM D2244 (Color); AS/NZS 1580.481.1.9 (Blisters) | No discoloration or blistering. Refer Notes 9 & 11 |
| **Resistance to heat** | | |
| Exposure 100˚C continuous (500 hours) | ASTM D2244 (Color) | Color Change ΔE : ≤ 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;<br>Spread of flame index: 0 rating in scale of 0-10;<br>Heat evolved index: 0 rating in scale of 0-10;<br>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® Pearlescent 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® Pearlescent 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. Where specific Performance Requirements are deemed necessary for the reverse surface coating, a “double sided” product should be specified, in which case a topcoat of full nominal thickness will be applied.
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® Pearlescent has good resistance to accidental spillage of solvents such as methylated spirits, white sprit, mineral turpentine, toluene, and trichloroethylene and dilute mineral acids and alkalis. However, all spillages should be immediately removed by water washing and drying.

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