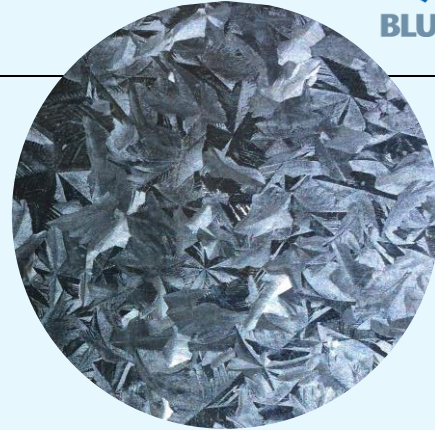


Coated Steel – Metallic

Data Sheet



February 2020. This literature supersedes all previous issues



ZINC HI-TEN[®] steel

G550 / G550S

General Description

ZINC HI-TEN[®] G550 steel is a hot-dipped zinc-coated structural steel with a spangled surface and guaranteed minimum yield strength of 550MPa. Suitable for roll-forming to a 4t minimum internal diameter.

ZINC HI-TEN[®] G550S steel is skin passed to improve surface quality.

Typical uses

Roll formed decking and walling, fencing posts and rails.

Australian and International Standards

AS/NZS 1365:1996

AS 1397-2011

ISO 9001:2015 Quality System certified

Guaranteed properties of steel base

| Mechanical properties | Guaranteed minimum |
|--|--------------------|
| Yield Strength, MPa (longitudinal tensile) | 550 |
| Tensile Strength, MPa (longitudinal tensile) | 550 |
| Elongation on 80mm (≥ 0.60 mm) % | 2 |

Chemical composition of steel base

| Chemical properties | Guaranteed maximum % |
|---------------------|----------------------|
| Carbon - C | 0.20 |
| Manganese - Mn | 1.20 |
| Phosphorus - P | 0.040 |
| Sulphur - S | 0.030 |

Metal coating adhesion – 180° bend test

| Coating class | Result |
|---------------|--------|
| Z100 | 1t |
| Z200 | 2t |
| Z275 | 2t |
| Z450 | 2t |
| Z600 | 3t |

Where t = the diameter of mandrel in terms of thickness of product.

Dimensional capabilities

| Thickness range (mm) | Width range (mm) |
|----------------------|------------------|
| 0.30 – 0.319 | 800 - 1000 |
| 0.32 – 0.349 | 800 - 1100 |
| 0.35 – 0.399 | 800 - 1220 |
| 0.40 – 0.499 | 700 - 1220 |
| 0.50 – 0.699 | 700 - 1250 |
| 0.70 – 1.000 | 700 - 1525 |

Notes: Not every combination of thickness and width may be available. Supply conditions may be subject to dimensional restrictions and are subject to BlueScope Sales and Marketing confirmation. Slitting and shearing available on request from BlueScope Sales Offices. For requirements outside the standard product range please contact your local Sales Office. To determine maximum mill edge width available, subtract 30mm from the maximum width.

Fire hazard properties

| Test & Evaluation Methods | Range | Result |
|--|--|---|
| Simultaneous determination of ignitability, flame propagation, heat release and smoke release (AS/NZS 1530.3:1999) | 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 2019; AS/NZS 1530.3:1999) | National Construction Code, Building Code of Australia 2019; Volume 1: Part C1.9.e, and Volume 2: Part 3.7.1.1.e | May be used wherever a non-combustible material is required |
| | AS/NZS 1530.3:1999 | |
| Combustibility test for materials (steel substrate) (AS 1530.1-1994) | AS 1530.1-1994 | Not deemed combustible (steel substrate) |

Supply conditions

| Attribute | Normal | Optional |
|------------------------|------------|------------------|
| Coating Class | Z275 | Z200, Z450, Z600 |
| Surface Finish | Spangled | - |
| Surface Treatment | Passivated | - |
| Branding | Branded | - |
| Tolerance - Dimensions | Class A | Class B |
| Tolerance - Flatness | Class A | - |

Important Notes: Optional supply conditions may be subject to dimensional restrictions

Fabricating performance

| Method | Rating |
|--|--------|
| Bending | 1 |
| Drawing | NR |
| Pressing | NR |
| Roll Forming | 3 |
| Welding (design must allow for some strength reduction near welds) | 5 |
| Painting Pre-treatment | 5 |

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended. The ratings in this table are general indicators only, given as a guide to fabricating performance.

Important information

Skin-passing will generally give a marginally higher yield strength and marginally reduced % elongation. Material should be used promptly (within 6 months) to avoid the possibility of a storage related corrosion. For selection of the most appropriate metallic coated steel, please refer to technical bulletins TB1a, TB1b, CTB21 and CTB22. For storage, rollforming lubricants and other information please refer to the Technical Bulletins.

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To learn more about this product

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The information contained in this datasheet is provided by way of general information about this product only, and has not been prepared with your specific needs in mind. We recommend that you seek BlueScope Steel Limited's advice as to the suitability of this product for the purpose(s) for which you propose to use it. To contact BlueScope Steel Limited for advice about your proposed use of this product, please contact Steel Direct. ZINC HI-TEN®, BlueScope and the BlueScope brand mark are registered trade marks of BlueScope Steel Limited.

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