

Coated Steel – Metallic

Data Sheet



October 2018. This literature supersedes all previous issues



TRUECORE[®] steel with Activate[®] technology G500

General Description

TRUECORE[®] G500 steel with Activate[®] technology is a hot-dipped aluminium / zinc / magnesium alloy coated structural steel with a guaranteed minimum yield strength of 500MPa, manufactured using a blue tinted resin. It is specifically designed for the residential house framing market.

Typical uses

Structural residential house framing.

Australian and International Standards

AS/NZS 1365:1996

AS 1397:2011

ISO 9001 Quality System certified

Guaranteed properties of steel base

| Mechanical properties | Guaranteed minimum |
|--|--------------------|
| Yield Strength, MPa (longitudinal tensile) | 500 |
| Tensile Strength, MPa (longitudinal tensile) | 520 |
| Elongation on 80mm, (≥ 0.60 mm) % | 7 |
| 90° Transverse Bend | 6t |

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 |
|---------------|--------|
| AM150 | 2t |

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

Dimensional capabilities

| Thickness range (mm) | Max Width (mm) |
|----------------------|----------------|
| 1.15 - 1.20 | 1220 |

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.

Resistance to fire

| Index | Range | Result |
|----------------------------|--|--------|
| Ignitability Index | 0 - 20 | 0 |
| Spread of Flame Index | 0 - 10 | 0 |
| Heat Evolved Index | 0 - 10 | 0 |
| Smoke Developed Index | 0 - 10 | 1 |
| National Construction Code | May be used wherever a non-combustible material is required* | |

*According to National Construction Code, Building Code of Australia, Volume1: Part C1.12.e, and Volume 2: Part 3.7.1.2.e

Supply conditions

| Attribute | Normal | Optional |
|------------------------|---------------------------|----------|
| Coating Class | AM150 | - |
| Surface Condition | Spangled | - |
| Surface Treatment | Passivated / Resin coated | - |
| 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 | 2 |
| Drawing | NR |
| Pressing | NR |
| Roll Forming | 3 |
| Lock Forming | NR |
| Welding (design must allow for some strength reduction near welds) | 4 |
| Painting Pre-treatment | NR |

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

Material should be used promptly (within six 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's advice as to the suitability of this product for the purpose(s) for which you propose to use it. To contact BlueScope for advice about your proposed use of this product, please contact Steel Direct. TRUECORE®, Activate®, BlueScope and the BlueScope brand mark are registered trade marks of BlueScope Steel Limited.

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