**Coated Steel - Metallic**
**Data Sheet**

November 2025 - This literature supersedes all previous issues

# TRUECORE® steel with Activate® technology G500

## General description

TRUECORE® steel G500 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 designed for the residential house and commercial framing markets.



## Typical uses

Structural residential house framing, structural commercial framing.

## Australian and International Standards

AS/NZS 1365:1996 (R2016)
AS 1397:2021
ISO 9001:2015 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 (≥ 0.60mm) %** | 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.

## Fire hazard properties

| Test & Evaluation Methods | Range | Result |
|---|---|---|
| **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) | 0-1 |
| **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) | |

* 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.

## 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.

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## Fabricating performance

| Method | Rating |
|---|---|
| **Bending** | 2 |
| **Drawing** | NR |
| **Pressing** | NR |
| **Rollforming** | 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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