

# ZINCALUME<sup>®</sup> steel with Activate<sup>®</sup> technology G500

## General description

ZINCALUME<sup>®</sup> steel with Activate<sup>®</sup> technology G500 is a hot-dipped aluminium / zinc / magnesium alloy-coated structural steel with a regular spangle surface and a guaranteed minimum yield strength of 500MPa with limited ductility.

## Typical uses

Structural sections, patio posts. Suitable for rollforming to minimum internal diameter of 4t.

## 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
AM125	2t

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

## Dimensional capabilities

Thickness range (mm)	Max width (mm)
1.001 – 1.200	1200
1.201 – 1.499	1100

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
<b>Simultaneous determination of ignitability, flame propagation, heat release and smoke release (AS/NZS 1530.3:1999 (R2016)) *</b>	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
<b>NCC non-combustible material concessions (NCC 2022; AS/NZS 1530.3:1999 (R2016)) *</b>	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) AS/NZS 1530.3:1999 (R2016)	May be used wherever a non-combustible material is required

\* 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	AM125	-
Surface Condition	Spangled	-
Surface Treatment	Passivated & Resin Coated	-
Branding	Branded	Not 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
Rollforming	3
Lock Forming	NR
Welding (design must allow for some strength reduction near welds)	4
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

---

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.

Zincalume®

[steel.com.au](http://steel.com.au)

To learn more about this product

**1800 064 384**

[steeldirect@bluescopesteel.com](mailto:steeldirect@bluescopesteel.com)

For more information contact Steel Direct



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. ZINCALUME®, Activate®, BlueScope and the BlueScope brand mark are registered trade marks of BlueScope Steel Limited. © 2025 BlueScope Steel Limited ABN 16 000 011 058. All rights reserved.