

Activate<sup>™</sup> Technology

Revision 1 September: 2019



This literature supersedes all previous ssues

#### Metallic Coated - MC

## **GENERAL DESCRIPTION**

ZINCALUME® Ultra steel with Activate<sup>TM</sup> technology lies in the unique composition and microstructure of 4 phases including Aluminium - Zinc and 2 strategically positioned magnesium compounds (MgZn<sub>2</sub>, Mg<sub>2</sub>Si) with a regular spangle surface with passivation and resin coated.

# **Structural - S**

## **TYPICAL USES**

Roofing, walling and structural steel framing. For material selection advice, please contact your nearest BlueScope sales office.

#### AUSTRALIAN STANDARD

AS/NZS 1365:1996 AS 1397:2011 (Table 3.5) ISO 9001-2015 Quality System certified

#### GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL	GUARANTEED MINIMUM	
PROPERTIES	G300	G550
Longitudinal Tensile, MPa		
- Yield Strength, MPa	300	550
- Tensile Strength, MPa	340	550
- Elongation on 80mm (≥0.60mm) %	18	2

# CHEMICAL COMPOSITION OF STEEL BASE

CHEMICAL	GUARANTEED MAX %		
PROPERTIES	G300	G550	
Carbon - C	0.2	0.2	
Phosphorus - P	0.04	0.04	
Manganese - Mn	1.2	1.2	
Sulphur - S	0.03	0.03	

# METAL COATING ADHESION - 180° BEND TEST

COATING THICKNESS	G300	G550
Nominal 0.05mm (150g/m <sup>2</sup> )	1t	2t

#### Notes

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

# FIRE HAZARD PROPERTIES-AS/NZS1530.3

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	0-1

## **DIMENSIONAL CAPABILITIES\***

PREFERRED BASE METAL THICKNESS, mm	WIDTH, mm
0.31 - 0.8	914 – 1220

#### Notes

\* These dimensions are a reflection of technical capability to produce. Any other sizes may be available on request

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 the standard product range please contact your local Sales Office.

## NORMAL/OPTIONAL SUPPLY CONDITIONS

	NORMAL	OPTIONAL#
Coating thickness	Nominal 0.05mm (150g/m²)	
Surface Condition	Spangled	
Surface Treatment	Passivated & Resin Coated	
Branding	Branded	Not Branded
Dimensions Tolerance*	Class A	Class B
Flatness Tolerance*	Class A	Class B

#### Notes

- # Optional supply conditions may be subject to dimensional restrictions.
- \* The dimensional tolerances for thickness, width flatness and camber shall be in accordance with the requirements of AS/NZS1365.

### **NS BLUESCOPE VIETNAM**

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# Structural - S

## **FABRICATING PERFORMANCE G300**

METHOD		METHOD	RATING
Bending	5	Lock Forming	NR
Drawing	2	Welding	4*
Pressing	2	Painting Pretreatment	5
Roll Forming	5		

Notes

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended

# **FABRICATING PERFORMANCE G550**

METHOD		METHOD	
Bending	1	Lock Forming	3
Drawing	NR	Welding	4*
Pressing	NR	Painting Pretreatment	5
Roll Forming	3		

#### Notes

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended

# IMPORTANT INFORMATION

Typical mechanical properties are based on typical product despatched to customers. Note that ductility will decline through a natural ageing process during storage and/or paint stoving cycle.

Material should be used promptly (within six months) to avoid the possibility of a storage related corrosion. Rollforming mark does not affect the performance of ZINCALUME® Ultra steel. 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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<sup>\*</sup> Welding design must allow for some strength reduction near welds

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