

# Metallic Coated MC Structural S ZINCALUME® G300 steel G300S steel

Revision 8, November 2003

This literature supersedes all previous issues

## GENERAL DESCRIPTION

ZINCALUME® G300 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a regular spangle surface and a guaranteed minimum yield strength of 300 MPa with good ductility. Suitable for roll forming to a minimum internal diameter of 1t.

ZINCALUME® G300S steel is skinpassed to improve surface quality. Skinpassed material is used to supply COLORBOND® steel and is not available without the COLORBOND® paint finish.

## TYPICAL USES

- G300 – RWG, gutters and garden sheds  
G300S – Painted roll formed decking, RWG, tubing, garage door, gutters and signs (general COLORBOND® steel applications)

## AUSTRALIAN STANDARDS

AS 1365  
AS 1397:2001

## GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED MINIMUM
Yield Strength, MPa	300
Tensile Strength, MPa	340
Elongation on 80mm $\geq$ 0.60mm) %	18
180° transverse bend (L axis)	1t

CHEMICAL PROPERTIES	GUARANTEED MAXIMUM %
Carbon (C)	0.3
Phosphorus (P)	0.10
Manganese (Mn)	1.60
Sulphur (S)	0.035

Note – tensile tested in longitudinal direction

## COATING ADHESION – 180° BEND TEST

COATING CLASS	GUARANTEED
AZ50	1t
AZ150	1t
AZ200	1t

## FIRE HAZARD PROPERTIES

IGNITABILITY INDEX	(range 0-20)	0
SPREAD OF FLAME INDEX	(range 0-10)	0
HEAT EVOLVED INDEX	(range 0-10)	0
SMOKE DEVELOPED INDEX	(range 0-10)	0-1

## DIMENSIONAL CAPABILITIES

Thickness Ranges mm		Max. Width mm
$\geq 0.30 < 0.32$	G300S	1070
$\geq 0.30 < 0.32$	G300	1100
$\geq 0.32 < 0.35$	G300/G300S	1100
$\geq 0.35 < 0.38$	G300/G300S	1220
$\geq 0.38 \leq 1.00$	G300/G300S	1235
$> 1.00 \leq 1.20$	G300/G300S	1220

Slitting and shearing available on request from BlueScope Steel sales offices.

**These dimensions are a reflection of technical capability to produce. Supply conditions may be subject to dimensional restrictions and is subject to BlueScope Steel Sales and Marketing confirmation.**

## NORMAL/OPTIONAL SUPPLY CONDITIONS

	Normal	Optional
Coating Class	AZ150	AZ200 AZ50 – by enquiry only
Surface Condition	Spangled	–
Surface Treatment	Passivated/ Resin coated	–
Tolerance Class		
Dimensions	A Class	B Class
Flatness	A Class	B Class
Branding	Branded	–

## Important Notes

Material should be used promptly (within 6 months) to avoid the possibility of storage related corrosion.

For selection of the most appropriate metallic coated steel, please refer to technical bulletins TB1a, TB1b, CTB21 and CTB22.

Mechanical properties are guaranteed at ambient/room temperatures. Please consult technical representatives at BlueScope Steel Sales office for high/low temperature use.

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Please ensure you have the current data sheet for this product as displayed at [www.bluescopesteel.com.au](http://www.bluescopesteel.com.au)

## BlueScope Steel Limited

BlueScope Steel Limited ABN 16 000 011 058  
BlueScope Steel (AIS) Pty Ltd ABN 19 000 019 625

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**Continued**

## TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)

Thickness mm	Yield Strength & Tensile Strength MPa																		
	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480
0.35																			
0.55																			
0.75																			
1.0																			
1.2																			

**Key**  yield strength  tensile strength

Thickness mm	Total Elongation on 80mm (%)										
	20	22	24	26	28	30	32	34	36	38	40
0.35											
0.55											
0.75											
1.0											
1.2											

### FABRICATING PERFORMANCE

Method	Rating
Bending	5
Drawing	2
Pressing	2
Roll-Forming	5
Welding	4
Painting (Pretreatment)	5

### TYPICAL CHEMICAL COMPOSITION OF STEEL BASE

	%
Carbon (C)	0.035 - 0.070
Phosphorus (P)	0.00 - 0.02
Manganese (Mn)	0.20 - 0.30
Sulphur (S)	0.00 - 0.02
Silicon (Si)	0.00 - 0.02
Aluminium (Al)	0.02 - 0.07
Nitrogen (N)	0.000 - 0.008

where 1 = limited to 5 = excellent, or NR = not recommended

### IMPORTANT NOTES:

- Typical Mechanical Properties are based on typical product dispatched to customers. Note that ductility will decline through a natural aging process during storage and/or paint stoving cycle.
- The Skin-Passing of ZINCALUME® G300S steel will generally give a marginally higher yield strength and marginally reduced % elongation.

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