# Metallic Coated Structural 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 - House framing, RWG, gutters and garden

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

#### **AUSTRALIAN STANDARDS**

CHEMICAL

**PROPERTIES** 

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 (≥ 0.60mm) %	18
180° transverse bend (L axis)	1t

Carbon (C)	0.3
Phosphorus (P)	0.10
Manganese (Mn)	1.60
Sulphur (S)	0.035

GUARANTEED **MAXIMUM** %

Note - tensile tested in longitudinal direction

#### **COATING ADHESION - 180° BEND TEST**

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

#### FIRE HAZARD PROPERTIES

(range 0-20)	0
(range 0-10)	0
(range 0-10)	0
(range 0-10)	0-1
	(range 0-10) (range 0-10)

# **DIMENSIONAL CAPABILITIES**

Thickness Ranges mm		Max. Width mm
≥ 0.30 < 0.32	G300S	1070
≥ 0.30 < 0.32	G300	1100
≥ 0.32 < 0.35	G300/G300S	1100
≥ 0.35 < 0.38	G300/G300S	1220
≥ 0.38 ≤ 1.00	G300/G300S	1235
> 1.00 ≤ 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** Mannal

0-4:---1

	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 quaranteed at ambient/room temperatures. Please consult technical representatives at BlueScope Steel Sales office for high/low temperature use.

ZINCALUME® and COLORBOND® are registered trade marks of BlueScope Steel Limited. BlueScope is a trade mark of BlueScope Steel Limted.

Please ensure you have the current data sheet for this product as displayed at www.bluescopesteel.com.au

### **BlueScope Steel Limited**

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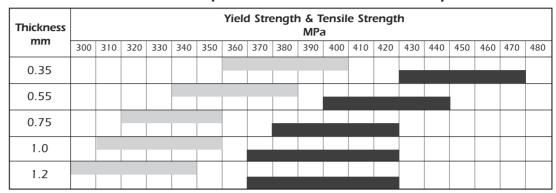
SYDNEY: (02) 9795 6700 MELBOURNE: (03) 9586 2222 BRISBANE: (07) 3845 9300 ADELAIDE: (08) 8243 7333 PERTH: (09) 9330 0666

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# TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)



<b>Key</b> yield strength tensile strength
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Thickness (%)											
mm	20	22	24	26	28	30	32	34	36	38	40
0.35											
0.55											
0.75											
1.0							· 				
1.2											

FABRICATING PERFORMANCE		TYPICAL CHEMICAL COMPOSITION OF STEEL BASE			
Method	Rating		%		
Bending	5	Carbon (C)	0.035 - 0.070		
Drawing	2	Phosphorus (P)	0.00 - 0.02		
Pressing	2	Manganese (Mn)	0.20 - 0.30		
Roll-Forming	5	Sulphur (S)	0.00 - 0.02		
Welding	4	Silicon (Si)	0.00 - 0.02		
Painting (Pretreatment)	(Pretreatment) 5	Aluminium (AI) Nitrogen (N)	0.02 - 0.07 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<sup>®</sup> G300S steel will generally give a marginally higher yield strength and marginally reduced % elongation.

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