# ZINCALUME® G300 steel



## **Technical Data Sheet**

Document No. 006

Revision - 0

**April 2015** 

This literature supersedes all previous issues.

#### **Product**

ZINCALUME® G300 steel is a hot-dipped Al-Zn alloy coated structural steel with guaranteed minimum yield strength of 300MPa with good ductility. Suitable for roll forming to a minimum internal diameter of 1t.

#### **Typical Uses**

Roofing, Cladding, General Manufactured Articles

#### Standard\*

AS 1397

 $^{\star}\text{Other}$  standards (e. g. ASTM A 792M, ISO 9364, IS15961 etc.) and grades on specific agreement

#### **Properties of Steel Base**

Mechanical Properties	Guaranteed Minimum
Logitudinal Tensile	
Yield Strength, MPa	300
Tensile Strength, MPa	340
Elongation on 80 mm, %	18
Hardness, HR30T	50

#### **Chemical Composition of Steel Base**

Element	Guaranteed Max# (%)
Carbon (C)	0.30
Manganese (Mn)	1.60
Phosphorus (P)	0.10
Sulphur (S)	0.035

# Values shown refer to relevant standard unless specifically agreed to # Other elements that are not harmful for the application may be present

#### **Coating Class**

	Minimum Coating - Total Both Surfaces, g/m²		
Coating Class	Triple Spot Test	Single Spot Test	
AZ150	150	135	
AZ200	200	180	

#### Coating Adhesion - 180° Bend Test

Coating Class	Guaranteed Minimum
AZ150 / AZ200	1t

#### Dimension Range & Tolerances (AS/NZS 1365)\*\*

Base Metal Thickness (mm)			
Range	Tolerance		
	Width ≤ 1200	Width > 1200	
0.30 - 0.50	± 0.03	± 0.04	
0.51 - 0.80	± 0.04	± 0.05	
0.81 - 1.20	± 0.05	± 0.06	
1.21 - 1.30	± 0.06	± 0.07	

Width (mm)		
Range	Tolerance	
Ū		
< 900 (in slit edge)	+1 / - 0	
914 - 1000	+ 4 / - 0	
1001 - 1250	+ 5 / - 0	

<sup>\*\*</sup>For requirements beyond the standard product range & tolerance, please contact Tata BlueScope Steel Office

#### Fire Hazard Properties (AS/NZS 1530.3)

Index	Range	Rating
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

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#### **Supply Conditions**

Supply Condition	Normal	Optional
Surface Condition	Spangled	-
Coating Class	AZ150 <sup>i</sup>	AZ200 <sup>ii</sup>
Surface Treatment	Passivated and Resin coated	Passivated (for post painting/ paint line feed)
Branding	Branded	Unbranded
Tolerance Class <sup>iii</sup>		
1. Dimensions	A Class	-
2. Flatness	A Class	_

i) Metallic coating of minimum 150 g/m², ii) Metallic coating of minimum 200 g/m², iii) Dimensional and shape tolerances as per AS/NZS 1365

#### **Fabrication Performance**

Method	Rating#	Method	Rating <sup>#</sup>
Drawing	2	Lock Seam Forming	5
Pressing	2	Welding	4
Bending	5	Painting with Pre-treatment	5
Roll-forming	5		

<sup>#</sup> where 1 = limited to 5 = excellent, NR = not recommended

Material should be used promptly (within 6 months) to avoid the possibility of improper storage related corrosion & change in performance due to ageing

#### **Typical Property Ranges (For Normal Supply Product)**

Yield Strength (MPa)				
	Minimum	Maximum		
0.35	330	400		
0.45	320	390		
0.75	315	385		
1.0	310	375		
1.2	300	370		
	Tensile Strength (MPa)			
0.35	410	460		
0.45	400	450		
0.75	395	440		
1.0	385	430		
1.2	375	420		
	Total Elongation on 80mm (%)			
0.35	18	28		
0.45	20	30		
0.75	23	31		
1.0	25	32		
1.2	25	32		

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