

Metal Coated – ZINCALUME® - Structural

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General Description

ZINCALUME® G300 steel is a hot-dipped aluminium/zinc/magnesium 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.

Applications

- Rainwater goods
- Gutters
- Garden sheds
- Roofing
- Cladding

Standards

- AS/NZS 1397:2011
- AS/NZS 1365:1996

CHEMICAL COMPOSITION	TYPICAL (wt%)		EXPECTED MAXIMUM (wt %) ^[1]	
	≤0.8mm	>0.8mm	≤0.80mm	>0.80mm
Carbon (C)	0.035 - 0.070	0.06 - 0.100	0.07	0.10
Manganese (Mn)	0.14 - 0.25	0.50 - 0.70	0.25	0.70
Sulphur (S)	0.01 - 0.02	0.00 - 0.02	0.03	0.03
Phosphorus (P)	0.01 - 0.02	0.00 - 0.02	0.03	0.03
Silicon (Si)	0.00 - 0.03	0.00 - 0.02	0.03	0.03
Aluminium (Al)	0.03 - 0.07	0.03 - 0.07	0.08	0.08

[1] Values shown refer to relevant Australian / New Zealand standards unless tighter internal limits are applied.

MECHANICAL PROPERTIES	EXPECTED MINIMUM
Yield strength, MPa	300
Tensile strength, MPa	340
Elongation, % on Lo= 50mm (≥0.6mm)	20
180° transverse bend	1t

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.

COATING ADHESION - 180° BEND TEST	
COATING CLASS	GUARANTEED
AM125	1t

Other coating classes may be available by enquiry.

DIMENSION CAPABILITIES	
THICKNESS (mm)	WIDTH (mm)
0.35 – 0.39	70 – 1082
0.39 – 0.40	70 – 1193
0.40 – 0.99	70 – 1250

Slitting is available on request from New Zealand Steel.

These dimensions are a reflection of technical capability to produce. Supply conditions may be subject to dimensional restrictions and is subject to New Zealand Steel Marketing confirmation. Other dimensional combinations may be available by enquiry.



FABRICATING PERFORMANCE	
1 = Limited 5 = Excellent NR= Not Recommended	
METHOD	RATING
Drawing	2
Pressing	2
Bending	5
Roll-forming	5
Welding	4
Painting (Pre-treatment)	5

AVAILABLE FINISHES		
	NORMAL	OPTIONAL
Surface Condition	Finely spangled	-
Surface Treatment	Passivated & Resin coated	Oiled
Branding	Branded	Unbranded

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

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

In the as-oiled state long-term corrosion, resistance cannot be guaranteed. Further surface treatment/coating is required.

Packing

Despatched material will be packed appropriately providing protection against weather and transit damage.

Typical Property Ranges

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
0.35																		
0.40																		
0.55																		
0.75																		
0.95																		

KEY

Yield Strength (YS)

Tensile Strength (UTS)

THICKNESS (mm)	TOTAL ELONGATION (%) GL= 50mm																
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
0.35																	
0.40																	
0.55																	
0.75																	
0.95																	

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