

## Metal Coated – ZINCALUME® - Structural

Revision: 09/07/2025

### General Description

ZINCALUME® G550 steel is a hot-dipped aluminium/zinc/magnesium alloy-coated structural steel with a regular spangle surface and guaranteed minimum yield strength of 550MPa with limited ductility. Suitable for roll forming to a minimum internal diameter of 4t.

### Applications

- Roofing
- Cladding
- Roll-formed section for structural applications

### Standards

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

CHEMICAL COMPOSITION	TYPICAL (wt%)	EXPECTED MAXIMUM (wt %) [1]
Carbon (C)	0.020 – 0.070	0.050
Manganese (Mn)	0.14 – 0.22	0.220
Sulphur (S)	0.01 – 0.02	0.025
Phosphorus (P)	0.01 – 0.02	0.020
Silicon (Si)	0.00 – 0.02	0.025
Aluminium (Al)	0.03 – 0.06	0.060

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

MECHANICAL PROPERTIES	EXPECTED MINIMUM
Yield strength, MPa	550
Tensile strength, MPa	550
Elongation, % on Lo= 50mm (≥0.6mm)	2

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, AM150	2t

Other coating classes may be available by enquiry.

DIMENSION CAPABILITIES	
THICKNESS (mm)	WIDTH (mm)
0.32 – 0.33	100 – 940
0.33 – 0.35	100 – 1050
0.35 – 0.40	100 – 1176
0.40 – 1.00*	100 – 1230

\*Products above 0.95mm are only suitable for non-critical surface finish application as resin blushing and rough coating metal finishes can be present.

\*Greater than 0.75mm is subject to mill confirmation.

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	NR
Pressing	NR
Bending	1
Roll-forming	3
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)																				
	560	570	580	590	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760
0.350																					
0.400																					
0.420																					
0.480																					
0.550																					
0.750																					
0.950																					

<b>KEY</b>	Yield Strength (YS)	Tensile Strength (UTS)
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THICKNESS (mm)	TOTAL ELONGATION (%) GL= 50mm												
	2	3	4	5	6	7	8	9	10	11	12	13	
0.350													
0.400													
0.420													
0.480													
0.550													
0.750													
0.950													

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