

# Metallic Coated MC Formable F GALVABOND® G3N steel G3NS steel

Revision 6, November 2003

This literature supersedes all previous issues

## GENERAL DESCRIPTION

GALVABOND® G3N steel is a hot-dipped zinc-coated deep-drawing steel with a spangled surface, guaranteed non-ageing and free from stretcher strain.

GALVABOND® G3NS steel is skinpassed to improve surface quality.

## TYPICAL USES

Automotive panels and components, drawn appliance panels and components.

## AUSTRALIAN STANDARDS

AS 1365  
AS 1397:2001

## GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED MINIMUM
Elongation on 80mm ( $\geq 0.60\text{mm}$ ) %	32
180° transverse bend (L axis)	0t
Pittsburgh lock-seam	Pass

CHEMICAL PROPERTIES	GUARANTEED MAXIMUM %
Carbon (C)	0.08
Phosphorus(P)	0.02
Manganese (Mn)	0.40
Sulphur (S)	0.025

Note – tensiles tested in transverse direction

## COATING ADHESION – 180° BEND TEST

COATING CLASS	GUARANTEED
Z275	0t

## 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

## DIMENSIONAL CAPABILITIES

Thickness Ranges mm		Max. Width mm
0.50 ≤ 0.70	G3N, G3NS	1380
0.70 ≤ 1.60	G3N, G3NS	1525

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	Z275	–
Surface Condition	Spangled	Minimised spangle
Surface Treatment	Passivated	Unpassivated (oiled)
Tolerance Class		
Dimensions	A Class	B Class
Flatness	A Class	–
Branding	Branded	–

### Important Notes

Material should be used promptly (within 6 months) to avoid the possibility of a storage related phenomena of galvanised coatings termed intergranular corrosion.

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

For storage, rollforming lubricant and other information please refer to the Technical Bulletins.

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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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Produced by Artimprint (02) 9984 8586



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**Continued**

## TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)

Thickness mm	Yield Strength & Tensile Strength MPa																									
	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360
0.5 - 0.6	[Yield Strength Range]												[Tensile Strength Range]													
1.5	[Yield Strength Range]										[Tensile Strength Range]															

<b>Key</b>	[Light Grey Box] yield strength	[Dark Grey Box] tensile strength
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Thickness mm	Total Elongation (%)															
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
0.5 - 0.6	[Elongation Range]															
1.5	[Elongation Range]															

Thickness mm	Plastic Strain Ratio, R90													
	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7
0.5 - 0.6	[Plastic Strain Ratio Range]													
1.5	[Plastic Strain Ratio Range]													

### FABRICATING PERFORMANCE

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

### TYPICAL CHEMICAL COMPOSITION OF STEEL BASE

	%
Carbon (C)	0.000 - 0.010
Phosphorus (P)	0.00 - 0.02
Manganese (Mn)	0.10 - 0.20
Silicon (Si)	0.00 - 0.03
Sulphur (S)	0.00 - 0.02
Titanium	0.07 - 0.15
Nitrogen (N)	0.00 - 0.007

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

### IMPORTANT NOTES:

- Typical Mechanical Properties are based on typical product dispatched to customers.
- The Skin-Passing of GALVABOND® G3N steel will generally give a marginally higher yield strength and marginally reduced % elongation.

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