

# Metallic Coated MC Formable F **GALVABOND® G2 steel** **G2S steel**

Revision 8, November 2003

This literature supersedes all previous issues

## GENERAL DESCRIPTION

GALVABOND® G2 steel is a hot-dipped zinc-coated commercial forming steel with a spangled surface, suitable for general manufacturing, widely available as distributor stock. Product is suitable for moderate drawing applications and is suitable for lockseaming up to 1.6mm thick.

GALVABOND® G2S steel is skinpassed to improve surface quality. Under normal storage conditions it will be free of fluting for 3 months after galvanising.

## TYPICAL USES

Tube, Airconditioning ducts, Airconditioning Panels, Meter Box, Trailers, Partioning Systems, Cable Trays, Scaffolding Planks, Rendering Mesh, Feeder Troughs.

## AUSTRALIAN STANDARDS

AS 1365  
AS 1397:2001

## GUARANTEED PROPERTIES OF STEEL BASE

| MECHANICAL PROPERTIES           | GUARANTEED MINIMUM |
|---------------------------------|--------------------|
| Elongation on 80mm (≥ 0.60mm) % | 27                 |
| 180° transverse bend (L axis)   | 0t                 |
| Pittsburgh lock-seam (≤ 1.6mm)  | Pass               |

| CHEMICAL PROPERTIES | GUARANTEED MAXIMUM % |
|---------------------|----------------------|
| Carbon (C)          | 0.1                  |
| Phosphorus(P)       | 0.025                |
| Manganese (Mn)      | 0.45                 |
| Sulphur (S)         | 0.03                 |

Note – tensile tested in transverse direction

## COATING ADHESION – 180° BEND TEST

| COATING CLASS | GUARANTEED |
|---------------|------------|
| Z100          | 0t         |
| Z275          | 0t         |
| Z450          | 1t         |
| Z600          | 2t         |

## 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 |
|---------------------|---------|---------------|
| ≥ 0.3 < 0.32        | G2, G2S | 1070          |
| ≥ 0.32 < 0.35       | G2, G2S | 1100          |
| ≥ 0.35 < 0.40       | G2, G2S | 1220          |
| ≥ 0.40 ≤ 0.45       | G2, G2S | 1390          |
| > 0.45 ≤ 0.50       | G2, G2S | 1510          |
| > 0.50 ≤ 1.85       | G2, G2S | 1525          |
| > 1.85 ≤ 1.90       | G2, G2S | 1485          |
| > 1.90 ≤ 1.95       | G2, G2S | 1440          |
| > 1.95 ≤ 2.00       | G2, G2S | 1400          |
| > 2.00 ≤ 3.20       | G2      | 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

|                   | Normal     | Optional                           |
|-------------------|------------|------------------------------------|
| Coating Class     | Z275       | Z100<br>Z450>0.35mm<br>Z600>0.40mm |
| Surface Condition | Spangled   | Minimised spangle                  |
| Surface Treatment | Passivated | Unpassivated (oiled)               |
| 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 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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**Continued**

## TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)

| Thickness<br>mm | Yield Strength & Tensile Strength<br>MPa |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                 | 230                                      | 240 | 250 | 260 | 270 | 280 | 290 | 300 | 310 | 320 | 330 | 340 | 350 | 360 | 370 | 380 | 390 | 400 | 410 | 420 | 430 | 440 |  |
| 0.35            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 0.55            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 0.75            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 0.95            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 1.15            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 1.55            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 1.95            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 2.4             |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 2.95            |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

**Key**  yield strength  tensile strength

| Thickness<br>mm | Total Elongation<br>(%) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
|-----------------|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|
|                 | 26                      | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |  |  |  |  |
| 0.35            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 0.55            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 0.75            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 0.95            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 1.15            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 1.55            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 1.95            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 2.4             |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |
| 2.95            |                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |

### FABRICATING PERFORMANCE

| Method                  | Rating |
|-------------------------|--------|
| Bending                 | 5      |
| Drawing                 | 3      |
| Pressing                | 3      |
| Roll-Forming            | 5      |
| Lock-Forming            | 5      |
| Welding                 | 5      |
| Painting (Pretreatment) | 5      |

### TYPICAL CHEMICAL COMPOSITION OF STEEL BASE

|                | %             |
|----------------|---------------|
| Carbon (C)     | 0.035 - 0.070 |
| Phosphorus (P) | 0.00 - 0.02   |
| Manganese (Mn) | 0.20 - 0.30   |
| Sulphur (S)    | 0.00 - 0.02   |
| Silicon (Si)   | 0.00 - 0.02   |
| Aluminium (Al) | 0.02 - 0.07   |
| Nitrogen (N)   | 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 GALVABOND® G2 steel will generally give a marginally higher yield strength and marginally reduced % elongation.

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