

Metallic Coated - MC

GENERAL DESCRIPTION

SUPERDYMA® GM steel is an excellent corrosion-resistant, coated with Zn-11%Al-3%Mn, suitable for a broad range of commercial and structural applications, widely available as merchant stock guaranteed for lock-forming and suitable for moderate drawing applications.

TYPICAL USES

Garbage cans, air ducting, cable trays, applications involving lock-forming, appliances, post painted applications, ceiling T-bars, pressed parts, roll-formed structural sections, decking cladding, farming and rainwater goods.

STANDARDS

Certified standard - TIS 2981-2562

Reference Standards – AS1397, JIS G 3323

GUARANTEED PROPERTIES OF STEEL BASE

STEEL GRADE	Yield Strength, MPa	Tensile Strength, MPa	Elongation, %
G550	>550	>550	>2*
G500	>500	>520	>8*
G450	>450	>480	>10*
G300	>300	>340	>20*
SGMC570	>560	>570	-
SGMCC	>250	>270	-

*Applies for test pieces equal to or greater than 0.6 mm. thickness.

CHEMICAL COMPOSITION OF STEEL BASE

CHEMICAL PROPERTIES	GUARANTEED MAX %
Carbon - C	0.20
Phosphorus - P	0.04
Manganese – Mn	1.20
Sulphur - S	0.03

METAL COATING ADHESION – 180° BEND TEST

STEEL GRADE	COATING CLASS	COATING ADHESION
G550	K06, K08, K10, K12, K14, K18 ZM60, ZM90, ZM120, ZM150, ZM180	2t
G500		2t
G450		1t
G300		0t
SGMC570		2t
SGMCC	1t	

Where t = the diameter of mandrel in terms of thickness of product.

FIRE HAZARD PROPERTIES

INDEX	RANGE	RESULT
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

DIAMENSIONAL CAPABILITIES

STEEL GRADE	THICKNESS RANGES (mm)	MAX. WIDTH (mm)
G550	0.25 – 1.00	1260
G500	1.01 – 1.49	1260
G450	1.50 – 1.60	1260
G300	0.25 – 1.60	1260
SGMC570	0.25 – 1.60	1260
SGMCC	0.25 – 1.60	1260

Notes: These dimensions are a reflection of technical capability to produce. Supply conditions may be subject to dimensional restrictions and is subject to BlueScope Sales and Marketing confirmation. Slitting and shearing available on request from BlueScope Sales Offices. For requirements outside the standard product range please contact your local Sales Office.

NORMAL/OPTIONAL SUPPLY CONDITIONS

	NORMAL
Coating Class	K06, K08, K10, K12, K14, K18 ZM60, ZM90, ZM120, ZM150, ZM180
Surface Condition	Zero Spangled
Surface Treatment	Passivated
Branding	Branded

Important Notes

Optional supply conditions may be subject to dimensional restrictions

FABRICATING PERFORMANCE

Steel grade	Bending	Drawing	Pressing	Roll Forming	Welding (design must allow for some strength reduction near welds)	Painting Pretreatment	Lock forming
G550	2	NR	NR	3	5	5	NR
G500	2	NR	NR	3	5	5	NR
G450	3	NR	NR	3	5	5	NR
G300	5	3	2	5	5	5	-
SGMC570	5	3	3	5	5	5	5
SGMCC	2	NR	NR	5	5	5	NR

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended

IMPORTANT INFORMATION

Spangle variance from coil to coil is an inherent characteristic of metallic alloy coating process and will not affect the performance of the product. It is therefore not a cause for rejection. Typical mechanical properties are based on typical product despatched to customers. Note that ductility will decline through a natural ageing process during storage and/or paint stoving cycle.

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Please ensure you have the current data sheet for this product as displayed at www.nsbluescope.com