

# Cold Rolled CR Formable F CA3SN-G steel

Revision 4, November 2003

This literature supersedes all previous issues

## GENERAL DESCRIPTION

CA3SN-G cold rolled, skin-passed deep drawing steel guaranteed non-ageing and free from stretcher strain with a general purpose surface.

## TYPICAL USES

Unexposed drawn parts for automotive and appliance end uses.

## AUSTRALIAN STANDARD

AS/NZS 1595

## GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED %
Transverse tensile Yield strength, MPa	240 max
Tensile strength, MPa	-
Elong on 80 mm, %	
≥ 0.60 < 0.80 mm	35 min
≥ 0.80 mm	36 min
Hardness, HRB	53 max
HR30T	53 max
180° transverse bend (L axis)	0t
Uniform elong, %	-
Plastic strain ratio	
r0	-
r90	-
r45	-

CHEMICAL PROPERTIES	GUARANTEED MAXIMUM %	TYPICAL %
Carbon (C)	0.08	0.04 - 0.06
Phosphorus (P)	0.030	0.005 - 0.020
Manganese (Mn)	0.40	0.20 - 0.26
Sulphur (S)	0.025	0.008 - 0.020
Silicon (Si)	-	0.005 - 0.010
Aluminium (Al)	-	0.04 - 0.06
Nitrogen (N)	-	0.004 - 0.010

## DIMENSIONAL CAPABILITIES

Preferred thickness mm	Width range mm		Sheet length mm
	Strip	Sheet	
0.60	150 - 1650	300 - 1650	762 - 4870
0.65	150 - 1700	300 - 1700	762 - 4870
0.70	150 - 1750	300 - 1750	762 - 4870
0.75	150 - 1800	300 - 1800	762 - 4870
0.80, 0.95, 1.0, 1.15, 1.2	150 - 1810	300 - 1810	762 - 4870
1.35, 1.4, 1.55, 1.6, 1.8, 2.0	150 - 1810	300 - 1810	762 - 4870
2.2, 2.5	150 - 1650	300 - 1650	762 - 4870
2.8, 3.0	150 - 1500	300 - 1500	762 - 4870
3.2	150 - 1350	300 - 1350	762 - 4870

NOTE: Where maximum widths are less than 1200 mm, any width between half maximum and 610 mm is available by negotiation only. Availability applies only to product supplied direct from Western Port and may change if supplied from BlueScope Steel Service Centres. 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 <sup>#</sup>
Surface finish	Matt	-
Tolerance class		
Thickness	AT	BT
Width	AW	BW
Length	AL	BL
Flatness	AF	BF
Oiling	Oiled	Not Oiled
Branding	Not Branded	-
Edge Condition	Trimmed Edge	Mill Edge

<sup>#</sup>Optional supply conditions may be subject to dimensional restrictions.

## FABRICATING PERFORMANCE

Method	Rating
Bending	5
Drawing	4
Pressing	5
Roll-forming	5
Welding	5
Painting (pretreatment)	5

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

Note: It is recommended that customers use product promptly to avoid the possibility of rusting during storage. Oiling improves corrosion resistance but oiled product should be used within three months.

BlueScope is a trade mark of BlueScope Steel Limited.

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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## TYPICAL PROPERTY RANGES (FOR NORMAL SUPPLY PRODUCT)

Thickness mm	Yield Strength & Tensile Strength MPa																			
	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	
0.60 - 0.79																				
0.80 - 1.20																				
1.21 - 3.20																				

<b>Key</b>		proof stress		tensile strength
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Thickness mm	Uniform Elongation & Total Elongation (%)																												
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
0.60 - 0.79																													
0.80 - 1.20																													
1.21 - 3.20																													

<b>Key</b>		uniform elongation		total elongation
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Thickness mm	r-value											
	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
0.60 - 0.79												
0.80 - 1.20												
1.21 - 3.20												

Note: Typical properties from 80mm gauge length test piece in the transverse direction.

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