

Cold Rolled Formable CA2S-E steel

CR F

Revision 5, November 2003

This literature supersedes all previous issues

GENERAL DESCRIPTION

CA2S-E cold rolled and skin-passed commercial drawing steel for moderate forming and pressing with a surface suitable for exposed applications.

TYPICAL USES

Office furniture, shelving.

AUSTRALIAN STANDARD

AS/NZS 1595

GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED %	CHEMICAL PROPERTIES	GUARANTEED MAXIMUM %	TYPICAL %
Transverse tensile		Carbon (C)	0.10	0.04 - 0.07
Yield strength, MPa	260 max	Phosphorus (P)	0.030	0.005 - 0.020
Tensile strength, MPa	-	Manganese (Mn)	0.45	0.18 - 0.25
Elong on 80 mm, %		Sulphur (S)	0.03	0.008 - 0.020
≥ 0.40 < 0.60 mm	30 min	Silicon (Si)	-	0.005 - 0.010
≥ 0.60 < 0.80 mm	32 min	Aluminium (Al)	-	0.03 - 0.05
≥ 0.80 mm	33 min	Nitrogen (N)	-	0.002 - 0.010
Hardness, HRB	55 max			
HR30T	55 max			
180° transverse bend (L axis)	0t			

DIMENSIONAL CAPABILITIES

Preferred thickness mm	Width range mm		Sheet length mm
	Strip	Sheet	
0.50, 0.55, 0.60	150 - 1650	300 - 1650	1085 - 4870
0.70	150 - 1750	300 - 1750	1085 - 4870
0.80, 0.90, 0.95, 1.0, 1.15, 1.2	150 - 1810	300 - 1810	1085 - 4870
1.4, 1.55, 1.6, 1.95, 2.0	150 - 1810	300 - 1810	1085 - 4870
2.45, 2.5, 3.0	150 - 1650	300 - 1650	762 - 4570
3.2	150 - 1350	300 - 1350	762 - 4570

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 [#]
Surface finish	Matt	Lustre
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

[#]Optional supply conditions may be subject to dimensional restrictions.

FABRICATING PERFORMANCE

Method	Rating
Bending	5
Drawing	3
Pressing	3
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

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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SYDNEY: (02) 9795 6700 **MELBOURNE:** (03) 9586 2222 **BRISBANE:** (07) 3845 9300 **ADELAIDE:** (08) 8243 7333 **PERTH:** (09) 9330 0666

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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	
0.50 - 0.59																				
0.60 - 0.79																				
0.80 - 1.20																				
1.21 - 3.20																				

Key proof stress tensile strength

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	47	
0.50 - 0.59																															
0.60 - 0.79																															
0.80 - 1.20																															
1.21 - 3.20																															

Key uniform elongation total elongation

Thickness mm	r-value												
	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
0.50 - 0.59													
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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