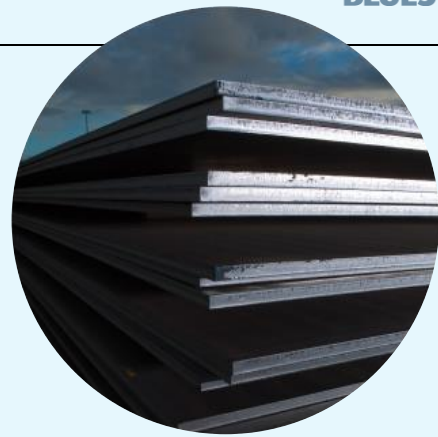


Uncoated steel

Data Sheet



October 2019. This literature supersedes all previous issues



XLERPLATE[®] steel

AS/NZS 3678 – 300

General description

A medium strength structural steel with nominal yield strength of 300MPa.

Typical uses

- General fabrication
- Structural members
- Bridges
- Storage tanks

Features & benefits

- Guaranteed minimum strength levels
- Excellent weldability
- Excellent formability
- ACRS accreditation (ACRS Certificate No. 120802)
- ATIC10 accreditation

Warnings

- This material should be used in conjunction with the appropriate structural design and welding standards
- An untrimmed (mill) edge may contain surface discontinuities associated with the rolling process (refer to clause 8 of AS/NZS 3678). The plate supplied may include an amount outside of the nominal ordered width, in accordance with relevant Australian standards. The area of the supplied plate which is outside of the nominal (customer ordered) width must not be used. Customers are advised to remove an equal width from each side of the plate when trimming.

Australian standards

AS/NZS 3678: 2016

AS/NZS 1365: 1996

ISO 9001:2015 Quality System certified

Normal / optional supply conditions

	Normal	Optional
Thickness Range	8mm – 120mm	-
Availability	By Enquiry	-
Edge Condition	Untrimmed (Mill Edge)*	Trimmed
Tolerances	AS/NZS 1365: 1996	-
Ultrasonic Inspection	--	AS 1710: 2007
Surface Inspection	BlueScope	Third party
Certification	BlueScope	Third party endorsed

Optional supply conditions may be subject to dimensional restrictions

*Plates less than 8mm in thickness are supplied with trimmed edges

Chemical composition

Element	Guaranteed Maximum%
Carbon	0.22
Silicon	0.5
Manganese	1.70
Phosphorus	0.040
Sulfur	0.030
Chromium	0.25
Nickel	0.30
Copper	0.40
Molybdenum	0.08
Aluminium	0.10
Niobium**	0.020
Titanium	0.040
CEQ (IIW)	0.44

All values shown refer to the relevant Australian Standard unless otherwise stated

$$CEQ(IIW) = C + \frac{Mn}{6} + \frac{(Cr + Mo + V)}{5} + \frac{(Cu + Ni)}{15}$$

Mechanical properties

Tensile Properties (Transverse)		Thickness (mm)						
		t = 8	8 < t ≤ 12	12 < t ≤ 20	20 < t ≤ 32	32 < t ≤ 50	50 < t ≤ 80	80 < t ≤ 120
Yield Strength (MPa)	Guaranteed Min	320	310	300	280	280	270	260
Tensile Strength (MPa)	Guaranteed Min	430	430	430	430	430	430	430
Elongation 5.65√S ₀ (%)	Guaranteed Min	21	21	21	21	21	21	21

Formability	Thickness (mm)	Longitudinal	Transverse
Recommended min inside Radius	8 ≤ t ≤ 10	2.25t	1.5t
	10 < t ≤ 20	3.0t	2.0t
	20 < t ≤ 50	6.0t	4.0t
	t > 50	Hot Forming	

This product is not suitable for hot forming above 620 °C.

Fire hazard properties

Test & Evaluation Method	Result
Combustibility test for materials (AS 1530.1-1994)	Not deemed combustible

steel.com.au

Please ensure you have the correct data sheet for this product as displayed at www.steel.com.au

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For more information contact Steel Direct



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