

XLERPLATE[®] steel

AS/NZS 3678 – 300

General description

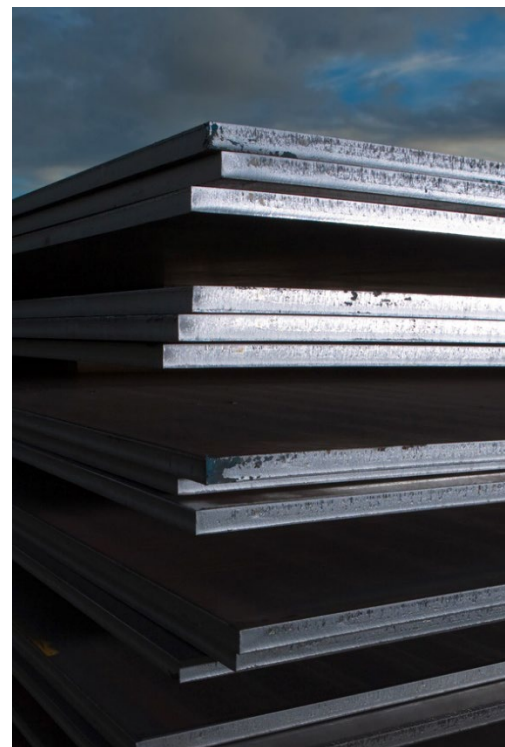
A medium strength structural steel with nominal yield strength of 300MPa.

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)
ATIC Scheme 10 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 3678:2016). 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 and International Standards

AS/NZS 3678:2016
AS/NZS 1365:1996 (R2016)
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 (R2016)	-
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	$8 \leq t \leq 10$	2.25t	1.5t
	$10 < t \leq 20$	3.0t	2.0t
	$20 < t \leq 50$	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 (R2016))	Not deemed combustible (steel substrate) #

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

steel.com.au

To ensure you have the most current information

1800 024 402

steeldirect@bluescopesteel.com
For more information contact Steel Direct



The information contained in this datasheet is provided by way of general information about this product only, and has not been prepared with your specific needs in mind. We recommend that you seek BlueScope's advice as to the suitability of this product for the purpose(s) for which you propose to use it. To contact BlueScope for advice about your proposed use of this product, please contact Steel Direct. XLERPLATE®, BlueScope and the BlueScope brand mark are registered trade marks of BlueScope Steel Limited. © 2019 BlueScope Steel Limited ABN 16 000 011 058. All rights reserved.