

AS/NZS 3678 - 300L15

XLERPLATE® steel

DATE: AUGUST 2009

PRODUCT DESCRIPTION

- A structural steel plate product suitable for low temperature applications with nominal yield strength of 300 MPa and guaranteed impact properties at -15°C

SUPPLY CONDITIONS

- Thickness Range: 8mm – 40mm
- Availability: By Enquiry
- Edge Condition: Untrimmed (Mill Edge) / Trimmed
- Tolerances: AS/NZS 1365
- Ultrasonic Inspection: AS1710 available
- Surface Inspection: BlueScope Steel (third party available)
- Certification: BlueScope Steel (third party endorsed available)

(1) Optional supply condition. May be subject to size range restrictions.

TYPICAL USES

- General fabrication
- Structural members
- Bridges
- Storage tanks

FEATURES & BENEFITS

- Guaranteed minimum strength levels
- Low temperature properties
- Excellent weldability
- Excellent formability

WARNINGS

- This material should be used in conjunction with the appropriate structural design and welding standards.
- An untrimmed (Mill) edge may contain minor surface discontinuities as a result of the rolling process (refer Clause 7 AS/NZS 3678). It is recommended that customers satisfy themselves that the edge is suitable for the application.

NEAREST OVERSEAS SPECIFICATIONS

ISO 630-E275D JISG 3106-SM400C EN 10025-2-S275J2

For more information contact:

BlueScope Steel Direct

Phone: 1800 800 789

Email: steeldirect@bluescopesteel.com

Website: www.xlerplate.com.au

Date Published: August 2009. The information contained in this datasheet is provided by way of general information only, and should not be relied upon by any person. You must seek specific advice as to the suitability of this product for the purpose for which, and the manner in which, you propose to use it. This may involve further independent analysis and testing. BlueScope Steel Limited and its related bodies corporate take no responsibility for any adverse consequences of any nature which arise as a result of reliance on this datasheet. These datasheets will be updated from time to time and the most up-to-date versions are available from www.xlerplate.com.au

XLERPLATE® is a registered trade mark of BlueScope Steel. BlueScope is a trade mark of BlueScope Steel Limited ABN 16 000 011 058.



AS/NZS 3678 - 300L15

XLERPLATE® steel

CHEMICAL COMPOSITION		
Element	Guaranteed Maximum % ⁽²⁾	Typical %
Carbon	0.22	0.14
Silicon	0.55	0.20
Manganese	1.70	1.10
Phosphorus	0.040	0.020
Sulfur	0.030	0.010
Aluminium	0.100	0.025
Titanium	0.040	0.018
CEQ (IIW) ⁽¹⁾	0.44	0.33

$$(1) \text{ CEQ (IIW)} = \frac{C}{6} + \frac{Mn}{5} + \frac{(Cr+Mo+V)}{5} + \frac{(Cu+Ni)}{15}$$

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

MECHANICAL PROPERTIES				
Tensile Properties (Transverse)		Thickness Range (mm)		
		8 < t ≤ 12	12 < t ≤ 20	20 < t < 40
Guaranteed Min.	Yield Strength (MPa)	310	300	280
	Tensile Strength (MPa)	430	430	430
	Elong. on 5.65 √ So (%)	21	21	21
Typical	Yield Strength (MPa)	320 - 410	310 - 410	290 - 370
	Tensile Strength (MPa)	440 - 540	440 - 510	440 - 490
	Elong. on 5.65 √ So (%)	24 - 40	24 - 36	24 - 34
Charpy Impact Properties	Longitudinal at -15°C on 10 x 10mm specimen	Absorbed Energy (joules)		
		Avg. of 3	Ind.	
Guaranteed Min.	300L15	27	20	
Typical t ≤ 40mm	As rolled	35 - 130	30 - 180	

WELDABILITY		
Group	Guaranteed Maximum	Typical Group / Thickness (mm)
		8 ≤ t ≤ 40
Group 4 ⁽³⁾	4	2

(3) Refer to WTIA Technical Note 1 or AS/NZS 1554.1

FORMABILITY (recommended min. inside radii)			HARDNESS
6 < t ≤ 10mm	Long 2.25T	Trans 1.5T	Typical
10 < t ≤ 20mm	Long 3.0T	Trans 2.0T	120 - 160 BHN
20 < t ≤ 40mm	Long 6.0T	Trans 4.0T	

Date Published: August 2009. The information contained in this datasheet is provided by way of general information only, and should not be relied upon by any person. You must seek specific advice as to the suitability of this product for the purpose for which, and the manner in which, you propose to use it. This may involve further independent analysis and testing. BlueScope Steel Limited and its related bodies corporate take no responsibility for any adverse consequences of any nature which arise as a result of reliance on this datasheet. These datasheets will be updated from time to time and the most up-to-date versions are available from www.xlerplate.com.au

XLERPLATE® is a registered trade mark of BlueScope Steel. BlueScope is a trade mark of BlueScope Steel Limited ABN 16 000 011 058.

