Uncoated steel
Data Sheet

October 2019. This literature supersedes all previous issues

XLERPLATE® steel
AS/NZS 3678 – Lasercut 250

General description
A medium strength structural steel with nominal yield strength of 250MPa designed specifically for laser cutting.

Typical uses
- Components
- Structural fabrication
- Laser profiling

Features & benefits
- Guaranteed minimum strength levels
- Low silicon plate steel designed for laser cutting
- ACRS accreditation (ACRS Certificate No. 120802)
- ATIC10 accreditation

Warnings
- This material is produced on a Plate Mill and the surface quality requirements comply with the requirements of the AS/NZS 3678:2016 standard
- This material should be used in conjunction with the appropriate structural design and welding standards
- Lasercut 250 is designed with low Silicon levels. This may have an impact on the thickness of the zinc coating when galvanising. Purchasers should satisfy themselves that the material meets the requirements of their operation.

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 – 32mm	-
Width Range	1500	-
Length Range	3.0 and 6.0 m	By Enquiry
Surface Condition	Hot Rolled in accordance with Section 8 of AS/NZS 3678	-
Edge Condition	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

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
Yield Strength (MPa)	Guaranteed Min	280	260	250	250
Tensile Strength (MPa)	Guaranteed Min	410	410	410	410
Elongation $5.65\sqrt{S_0}$ (%)	Guaranteed Min	22	22	22	22

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 ≤ 32	6.0t	4.0t

Fire hazard properties

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