



# XLERPLATE<sup>®</sup> 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√S <sub>0</sub> (%) | 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 |

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