

AS/NZS 1594 - HA1

XLERPLATE LITE™ steel

DATE: AUGUST 2009

PRODUCT DESCRIPTION

- Hot-rolled commercial forming product suitable for simple forming, welding and bending operations

SUPPLY CONDITIONS

- Thickness Range: 1.6mm – 12mm (not all thickness and width combinations are available)
- Surface finish: Hot-rolled / Skin Passed ⁽¹⁾
- Edge Condition: Untrimmed (Mill Edge) / Trimmed ⁽¹⁾
- Tolerances: AS1365
- Flatness: Class A
- Certification: BlueScope Steel - Analysis only

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

TYPICAL USES

- Light structural members (eg. purlins)
- Roll forming applications
- Brake press forming applications
- General fabrication
- Galvanising applications

FEATURES & BENEFITS

- Excellent weldability
- Good formability
- Excellent for galvanising applications

WARNINGS

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

NEAREST OVERSEAS SPECIFICATIONS

ASTM A 1011 CS Type A, B JISG 3131-SPHC

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CHEMICAL COMPOSITION		
Element	Guaranteed Maximum % ⁽³⁾	Typical %
Carbon	0.13	0.055
Silicon	0.030 ⁽⁴⁾	0.010
Manganese	0.50	0.21
Phosphorus	0.040	0.016
Sulfur	0.030	0.010
Aluminium	0.10	0.030
CEQ (IIW) ⁽²⁾	–	0.095

$$(2) \text{ CEQ (IIW)} = C + \frac{\text{Mn}}{6} + \frac{(\text{Cr} + \text{Mo} + \text{V})}{5} + \frac{(\text{Cu} + \text{Ni})}{15}$$

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

(4) Values shown refer to the BlueScope Steel internal standard, where the AS/NZS 1594 guaranteed maximum % is 0.35.

MECHANICAL PROPERTIES		
Tensile Properties (Longitudinal)	Guaranteed Minimum	Typical
Yield Strength (MPa)	–	200 - 320
Tensile Strength (MPa)	–	330 - 420
Elong. on 5.65 $\sqrt{S_0}$ (%)	–	27 - 38
180° Bend (Transverse)	1t	0.5t

DIMENSIONS		
Width Range ⁽⁵⁾ (mm)	Thickness Range ⁽⁵⁾ (mm)	Length Range ⁽⁵⁾ (mm)
910 - 1800	1.6 - 12	1200mm - 9600mm

(5) Not all thickness and width combinations are available

FABRICATING PERFORMANCE	
Bending	Good
Roll forming	Good
Galvanising	Excellent
Welding	WTIA Group 1 ⁽⁶⁾

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

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