AS/NZS 1594-HW350

XLERPLATE LITE™ steel

Revision 1 October 2013

This literature supersedes all previous issues

Plate – PL **Coil Plate - CPL**

GENERAL DESCRIPTION

Hot – rolled structural, weather resistant product with minimum yield strength of 340MPa.

AUSTRALIAN STANDARDS

AS/NZS 1594: 2002
AS/NZS 1365: 1996

TYPICAL USES

- Railway rolling stock and storage hoppers / bins.
- Shipping Containers
- Architectural features

FEATURES & BENEFITS

- Enhanced weather resistance
- Guaranteed minimum strength levels
- Good formability

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.
- The weather resistance of this material is due to the formation of an impervious oxide layer through the use of alloy additions. Damage to this layer, or environmental conditions affecting the development of this layer, will impact on the effectiveness of the corrosion resistance.
- Colour retention across welds can be achieved by appropriate electrode selection.
- Welds may be susceptible to hot cracking.
- Refer to BlueScope Technical Bulletin No.26 for more information regarding the use of this material.
- Weathering steels are not recommended without further protection for buried or submerged situations or for applications exposed to concentrated industrial fumes or severe marine conditions.
- Oxide staining of surrounding areas may occur due to run-off from this material.

NORMAL / OPTIONAL SUPPLY CONDITIONS

	Normal	Optional
Thickness Range	3mm – 6mm	
Width Range	1180 - 1250mm	
Availability	By Enquiry only	
Surface Finish	Hot-rolled	
Edge Condition	Untrimmed (Mill Edge)	Trimmed
Tolerances	AS/NZS 1365: 1996	
Flatness	Class A	
Certification	BlueScope Steel – Analysis and Mechanical tests	

Optional supply conditions may be subject to dimensional restrictions.

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CHEMICAL COMPOSITION

Element	Guaranteed Maximum %	Typical % 3mm – 6mm
Carbon	0.15	0.09
Silicon	0.75	0.45
Manganese	1.60	0.80
Phosphorus	0.160	0.090
Sulfur	0.030	0.010
Aluminium	0.10	0.030
Nickel	0.55	0.20
Chromium	1.05	0.70
Copper	0.50	0.25
CEQ (IIW)	0.49*	0.39

All values shown refer to the relevant Australian Standard unless otherwise stated.

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

* Values shown refer to the BlueScope Steel internal standard, where the AS/NZS 1594 guaranteed maximum % is 0.54

MECHANICAL PROPERTIES

Tensile Properties (Longitudinal)	Guaranteed Minimum	Typical % 3mm – 6mm
Yield Strength (MPa)	340	380 – 430
Tensile Strength (MPa)	450	520 – 570
Elong. (%) on 200mm	15	20 – 28
180° Bend (Transverse)	-	3t

DIMENSIONS

Standard Sections: Width (mm) x Thickness (mm)
1200 x 3
1200 x 4
1200 x 5
1200 x 6

Not all thickness and width combinations are available.
Thicknesses less than 3mm is available from BlueScope Steel as AS/NZS 1595-CW300G.

WELDABILITY GROUP

WTIA Group
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Refer to WTIA Technical Note 1 or AS/NZS 1554.1