

AS/NZS 3678 - A1006

XLERPLATE® steel

DATE: AUGUST 2009

PRODUCT DESCRIPTION

- Low carbon and low strength structural grade

SUPPLY CONDITIONS

- Thickness Range: 8mm – 180mm
- Availability: By enquiry only
- Thicknesses outside this range may be available by enquiry
- Edge Condition: Untrimmed
- Tolerances: AS1365
- Ultrasonic Inspection: AS1710 available
- Surface Inspection: BlueScope Steel (third party available)
- Certification: BlueScope Steel (third party endorsed available)

TYPICAL USES

- Galvanising Kettles

FEATURES & BENEFITS

- Excellent galvanising characteristics
- 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 a minimum of 50mm be removed from each untrimmed edge.
- Correct selection of electrodes for end use application, particularly in regard to galvanising tank application, is important - refer to electrode manufacturer.

NEAREST OVERSEAS SPECIFICATIONS

SAE/AISI 1006

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CHEMICAL COMPOSITION		
Element	Guaranteed Maximum % ⁽²⁾	Typical %
Carbon	0.08	0.05
Silicon	0.03	0.010
Manganese	0.40	0.23
Phosphorus	0.040	0.020
Sulfur	0.030	0.010
Aluminium	0.100	0.040
CEQ (IIW) ⁽¹⁾	–	0.10

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

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

MECHANICAL PROPERTIES		
A1006 IS NOT SUPPLIED TO SPECIFIED LEVELS OF MECHANICAL PROPERTIES		
Typical (As supplied)	t < 16mm	t ≥ 16mm
Yield Strength (MPa)	220 - 320	180 - 260
Tensile Strength (MPa)	320 - 420	280 - 380
% Elongation on 5.65 √ So	26 - 38	24 - 36

FORMABILITY (recommended min. inside radii)		HARDNESS	WELDABILITY
t ≤ 20mm	Long 2.25T Trans 1.5T	Typical	Group 1 ⁽³⁾
20 < t ≤ 50mm	Long 3.0T Trans 2.0T	80 - 120 BHN	
50 < t ≤ 100mm	Long 4.5T Trans 3.0T		
t > 100mm	Hot form		

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