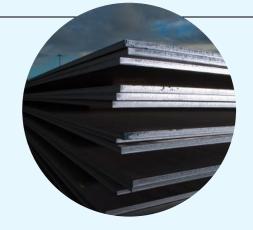
# **Uncoated steel**

# **Data Sheet**

September 2019. This literature supersedes all previous issues





# XLERPLATE® steel AS 1548 – PT430T (L0)

#### **General description**

A fully killed, fine grained, carbon-manganese steel for boiler and pressure vessel applications, with a guaranteed minimum tensile strength of 430MPa. Produced by thermo-mechanical controlled rolling.

#### Features & benefits

- Guaranteed minimum strength levels
- Excellent weldability
- Excellent formability

#### Warnings

 This material should be used in conjunction with the appropriate pressure vessel design and welding standards

- Guidelines for cold bending, where fracture toughness is important are given in AS 4100:1998 and AS 1210:2010
- This grade has not been designed for re-certification to PT460T
- This grade is not recognised in the ASME material code and does not carry the 'SA' prefix
- This grade is not suitable for hot forming above 620°C

#### Australian standards

AS 1548:2008 AS/NZS 1365:1996 ISO 9001:2015 Quality System certified

## Normal / optional supply conditions

	Normal	Optional	
Thickness Range	5mm only	-	
Availability	One standard size (2400mm x 5mm x 9m) only	-	
Edge Condition	Trimmed	-	
Tolerances	AS/NZS 1365:1996 -		
Ultrasonic Inspection	-	AS 1710:2007	
Surface Inspection	BlueScope	Third party	
Certification	BlueScope	Third party endorsed	

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#### Chemical composition

Element	Guaranteed Maximum %	
Carbon	0.20	
Silicon	0.5	
Manganese	1.60	
Phosphorus	0.040	
Sulfur	0.030	
Chromium	0.25	
Nickel	0.50	
Copper	0.40	
Molybdenum	0.10	
Aluminium	0.10	
Niobium**	0.010	
Titanium	0.040	
CEQ (IIW)	0.43	

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 = 5	
Yield Strength (MPa)	Guaranteed Min	300	
Tensile Strength (MPa)	Required	430 to 580	
Elongation 5.65√S₀ (%)	Guaranteed Min	22	

Charpy Impact Properties	Longitudinal on Test Temperature (°C)		Absorbed Energy (joules)	
	10 X 5 mm test piece		Avg. of 3	Individual
Guaranteed Min	430T	0	22	16
Guaranteed Min	430TL0	0	34	27

Formability	Thickness (mm)	Longitudinal	Transverse
Recommended min inside Radius	5	1.5t	1.0t

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Please ensure you have the correct data sheet for this product as displayed at www.steel.com.au

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