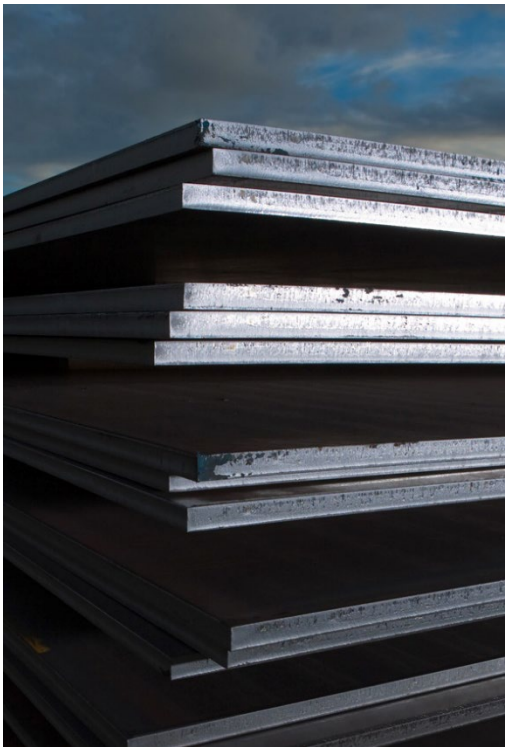
Uncoated Steel
Data Sheet

September 2026 - - 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 4100:2020 and AS 1210-2010 (R2021).

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.

Material should be stored under cover to avoid issues with storage related corrosion.

Australian and International Standards

AS 1548:2008 (R2018)
AS/NZS 1365:1996 (R2016)
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 (R2016)	-
Ultrasonic Inspection	-	AS 1710:2007 (R2017)
Surface Inspection	BlueScope	Third party
Certification	BlueScope	Third party endorsed

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$\sqrt{S_0}$ (%)	Guaranteed Min	22

Charpy Impact Properties	Longitudinal on 10 x 5mm test piece	Test Temperature (ºC)	Absorbed Energy (joules)	
			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

Fire hazard properties

Test & Evaluation Method	Result
Combustibility test for materials (AS 1530.1-1994 (R2016))	Not deemed combustible (steel substrate) #

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

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