

AS 1548 - PT430T (LO)

AS 1548 - PT430T, AS 1548 - PT430TLO

XLERPLATE® steel

DATE: AUGUST 2009

PRODUCT DESCRIPTION

- A fully killed, fine grained, carbon-manganese steel for boiler and pressure vessel applications
- Guaranteed minimum tensile strength of 430 MPa
- Produced by Thermo-Mechanical Controlled Rolling

SUPPLY CONDITIONS

- Thickness Range: 5mm only
- Size and Availability: Plate is available in one Standard size of (2400mm x 5mm x 9m) only
- Edge Condition: Trimmed
- Tolerances: Thickness - AS 1548, others - AS/NZS 1365
- Ultrasonic Inspection: AS 1710 available
- Surface Inspection: BlueScope Steel (third party available)
- Certification: BlueScope Steel (third party endorsed available)

FEATURES & BENEFITS

- Guaranteed minimum strength levels
- Excellent weldability
- Excellent formability

WARNINGS

- This material should be used in conjunction with the appropriate structural design and welding standards.
- Guidelines for cold bending, where fracture toughness is important are given in AS 4100 and AS 1210.
- 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

NEAREST OVERSEAS SPECIFICATIONS

ASTM A662 Grade A EN 10028 - 2 - P235GH

AS 1548 - 1995 EQUIVALENT

AS 1548 - 7 - 430R

For more information contact:

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CHEMICAL COMPOSITION		
Element	Guaranteed Maximum % ⁽²⁾	Typical %
Carbon	0.20	0.155
Silicon	0.50	0.18
Manganese	1.60	0.65
Phosphorus	0.040	0.020
Sulfur	0.030	0.013
Aluminium	0.100	0.030
CEQ (IIW) ⁽¹⁾	0.43	0.27

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

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

MECHANICAL PROPERTIES				
Tensile Properties (Transverse)		t = 5mm		
Guaranteed Min.	Yield Strength (MPa)	300		
	Tensile Strength (MPa)	430 - 550		
	Elong. on 5.65 √ So (%)	22		
Typical	Yield Strength (MPa)	380 - 440		
	Tensile Strength (MPa)	440 - 500		
	Elong. on 5.65 √ So (%)	25 - 40		
Charpy Impact Properties	Longitudinal on 10 x 5mm specimen at 0°C	Test Temp. °C	Absorbed Energy (joules)	
			Ave. of 3	Ind.
Guaranteed Min	PT430T	0	22	16
Typical			30 - 80	25 - 90
Guaranteed Min	PT430TLO	0	34	27
Typical			40 - 80	30 - 90

FORMABILITY (recommended min. inside radii)			HARDNESS	WELDABILITY
5mm	Long 1.5T	Trans 1.0T	Typical	Group 4 ⁽³⁾
			165 - 190 BHN	

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

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