

Data Sheet

BOILER GRADE PLATE G460NR

NZ STANDARD

- AS1548-PT460NR

(Previously known as AS1548-7-460R)

INTERNATIONAL STANDARDS

- JISG 3118-SGC450
- ASTM A662-Gr.B
- ISO 9328.2-P290
- EN 10028-3-P275N
- EN 10028-2-P295GH

PRODUCT DESCRIPTION

- A fully killed, fine grained, carbon-manganese steel for boiler and pressure vessel applications.
- Produced by normalised rolling
- Guaranteed minimum tensile strength of 460MPa

SUPPLY CONDITIONS

- Thickness Range 8mm—100mm
- Tolerances AS1365 or AS1548
- Ultrasonic Inspection AS1710 available on request

TYPICAL USES

- Boiler and pressure vessel applications.

Data sheet

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CHEMICAL COMPOSITION			
Element	Guaranteed Maximum	Typical %/ Thickness (mm)	
		8 ≤ t < 80	80 ≤ t < 110
Carbon	0.20	0.15	0.15
Silicon	0.60	0.35	0.35
Manganese	0.90—1.70	1.35	1.35
Phosphorus	0.040	0.020	0.020
Sulphur	0.030	0.010	0.003
Niobium	0.010	(L20, L40, L50 grades only)	(L20, L40, L50 grades only)
Aluminium	0.100	0.035	0.035
CEQ (IIW)	0.43	0.39	0.39

MECHANICAL PROPERTIES					
Typical Properties (Transverse)		Thickness Range (mm)			
		t ≤ 16	16 < t ≤ 40	40 < t ≤ 80	80 < t ≤ 100
Guaranteed Min.	Yield Strength (MPa)	305	295	275	265
	Tensile Strength (MPa)	460-580	460-580	460-580	460-580
Typical	Yield Strength (MPa)	330-430	315-415	290-370	290-350
	Tensile Strength (MPa)	470-530	470-530	470-530	470-530
	Elong. On 5.65 / So (%)	24-35	23-35	24-32	24-33

WELDABILITY		
		Typical Group/ Thickness (mm)
		8mm—100mm
Group 4	4	4

FORMABILITY (recommended min inside radii)		
t ≤ 20mm	Long 1.5T	Trans 1.0T
20mm < t ≤ 50mm	Long 6.0T	Trans 4.0T
t > 50mm	Hot form	

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