

Quenched & Tempered Low Alloy Steel Plate



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Atlas Steels stocks and distributes quenched and tempered plate, a steel that is stronger and harder than ordinary carbon steel. The product is used for the manufacture and repair of machinery and structures where greater abrasion resistance or higher yield strength is required.

Atlas primarily stocks the Bisalloy brand range of quenched and tempered plate that is readily available in a multitude of grades and thicknesses.

Grade 80

High strength, low alloy structural steel with controlled carbon equivalent for optimum weldability. This plate can be successfully welded to itself and a range of other steels, provided low hydrogen consumables are used and attention is paid to preheat, interpass temperature, heat input and the degree of joint restraint.

Stress relieving can be achieved at 540°C-570°C. Heating above this temperature should be avoided to minimise adverse effects on mechanical properties. This plate can be successfully cold formed, provided allowances are made for the increased strength of the steel.

Applications. Utilising the high strength properties of this grade allows reduction in section thickness, without loss of structural integrity. Common applications:

- Transport equipment
- Excavator and loader buckets
- Lifting equipment
- Dump truck trays

Grade 400/450

High hardness, abrasion-resistant steel with a controlled carbon equivalent for optimum weldability. With attention to heat input, preheat and consumable selection, it can be readily welded to itself and other steels, using conventional low hydrogen processes.

Applications. Through the plate's hardness and good mechanical properties this grade is the most popular wear plate in Australia. It has been extensively used in the following areas:

- Dump trucks
- Chutes
- Earthmoving buckets
- Gear wheels

Grade 500

Medium carbon, high hardness and abrasion-resistant steel. With attention to heat input, preheat and consumable selection, it can successfully be welded to itself and a range of other steels.

The high hardness causes difficult cold forming, requiring higher bending and cold forming forces along with greater allowances for springback.

Applications. The hardest quenched and tempered steel produced offers exceptional long life in sliding abrasion applications such as:

- Chutes
- Wear liners
- Cutting edges
- Earthmoving buckets

Quenched and Tempered steel plate range

Product stocked or available from production in Australia				
Thickness (mm)	Width x Length (mm)	80 Grade	400 Grade	500 Grade
4	2500 x 9000			
5	1525 x 8000			
5	2500 x 9000			
6	2485 x 8000			
8	2485 x 8000			
10	2485 x 8000			
10	3100 x 8000			
12	2485 x 8000			
12	3100 x 8000			
16	2485 x 8000			
16	3100 x 8000			
20	2485 x 8000			
20	3100 x 8000			
25	2485 x 8000			
25	3100 x 8000			
32	2485 x 8000			
32	3100 x 9000			
40	2485 x 8000			
50	2485 x 8000			
60	2485 x 6000			
65	2400 x 6000			
70	1900 x 6000			
75	1900 x 6000			
80	1900 x 6000			
90	1525 x 6000			
100	1525 x 6000			
120	2000 x 4000			
140		on application		
150		on application		
160		on application		

Bisalloy brand is commonly stocked.

Other brands/sizes/thicknesses are available upon request.

Calculation for plate mass: width x length x thickness x 7.85 = plate weight.

Example: 2.485m x 8.0m x 12mm x 7.85 = 1873kg or 1.873 tonne.