

BISALLOY® STRUCTURAL 110 STEEL

Introduction

BISALLOY® STRUCTURAL 110 steel is a low alloy, high strength structural steel plate with very high yield and tensile strengths, featuring low carbon, excellent impact toughness at low temperature and good weldability and formability.

Applications

Utilising the high strength properties of BISALLOY® STRUCTURAL 110 steel allows reduction in section thickness without loss of structural integrity. Some applications where the strength advantages of BISALLOY® STRUCTURAL 110 steel can be realised include:

- Transport Equipment
- Mobile and Truck Crane Booms
- Lifting Equipment
- Overhead Cranes
- Container Handling Equipment

BISALLOY® STRUCTURAL 110 steel is manufactured in accordance with AS/NZS 3597 Grade 1000.

Mechanical properties

Hardness (Typical)		Tensile				Charpy V-Notch Impact			
Plate Thickness (mm)	Brinell Hardness (HB 3000/10)	Plate Thickness (mm)	0.2% Proof Stress (MPa) Min	Tensile Strength (MPa)	% Elongation (50 mm G.L) Min	Plate Thickness (mm)	Energy (J) (Min)	Test Temp. (°C)	Test Direction
6 - 20	330	6 - 20	960	980 - 1150	12	6 - <8.5	20	-20	L
						8.5 - <12	30	-20	L
						12 - 20	40	-20	L

Chemical composition

Thickness (mm)	Weight %	C	P	Mn	Si	S	Cr	Mo	B	CE(IIW)*	CET*
6 - 20	Maximum	0.18	0.025	1.0	0.60	0.008	1.50	0.25	0.002	0.44	0.26

*Typical average. Low heat input butt welding required to ensure transverse weld tensile properties are achieved. Alternate chemistry may be specified when necessary

PLEASE NOTE: Every care has been taken to ensure the accuracy of information contained in this manual which supersedes earlier publications, however Bisalloy Steels shall not be liable for any loss or damage whatsoever caused from the application of such information. Typical values are provided for reference information only and no guarantee is given that a specific plate will provide these properties. Information is subject to change without notice. **Published April 2022**