August 2004

Bisalloy Steels Pty Ltd
PO Box 1256,
Unanderra, NSW, Australia, 2526
Ph - +61 2 4272 0444 Fax - +61 2 4272 0456
Email – bismail@bisalloy.com.au
Web - http://www.bisalloy.com.au/

BISPLATE 80

Applications

BISPLATE 80 – a low alloy, high strength steel plate with a yield strength three times that of carbon steel and featuring low carbon, excellent notch toughness and good weldability and formability. Utilising the high strength properties of BISPLATE 80 allows reduction in section thickness without loss of structural integrity. The following are some applications where the strength advantage has been realised:

- Transport Equipment (low loaders)
- High Rise Buildings (columns)
- Bridges
- Excavator Buckets
- Storage Tanks
- Lifting Equipment (mobile cranes/container handling equipment)
- Mining Equipment (dump truck trays / longwall roof supports)
- Induced Draft Fans

Chemical Composition

Thickness		C	P	Mn	Si	S	Cr	Mo	B	CE (IIW)	PCM
5-<16	Typical	0.16	0.010	1.10	0.20	0.003	-	0.20	0.0010	0.40	0.25
≥16-80	Typical	0.18	0.010	1.40	0.20	0.003	0.20	0.20	0.0010	0.50	0.29
>80-100	Typical	0.16	0.010	1.15	0.20	0.003	0.90	0.20	0.0010	0.58	0.30

Mechanical Properties

	0.2% Proof Stress	Tensile Strength	Elongation in 50 mm GL
Specification	690 MPa (min) *	790 – 930 MPa *	18% (min) *
Typical	750 MPa	830 MPa	26%

Charpy Impact Properties

	Longitudinal, -20°C (10mm x 10mm)
Specification	40 J (min) *
Typical	160 J

Hardness

Typical 255 HB

Testing

BISPLATE 80 is manufactured in accordance with AS/NZS 3597 Grade 700. All testing is NATA approved.

Reference Specifications

Welding according to AS/NZS 1554 parts 4 and 5, WTIA Technical Note 15

Equivalent Specifications

BISPLATE 80 is equivalent to

- ASTM A514
- ISO 4950-3 Grade E690
- ISO 9328-4 Grade P690TQ
- EN 10137-2 Grade S690Q
- JIS G3128

Manufacturing Tolerances

In accordance with AS/NZS 1365.

Tighter tolerances may be available on negotiation.

Surface Finish

Shotblasted

Plate Colour Code

Pink

Fabrication

For advice on fabrication refer to relevant Bisalloy technical brochures. Contact Bisalloy direct or visit www.bisalloy.com.au.

* Dependent on plate thickness