

# **BISPLATE<sup>®</sup> 500**

Shaping Australia's Future





**BISPLATE® 500**

BISPLATE® 500 – is a through hardened, abrasion resistant steel plate, offering long life expectancy in sliding and gouging abrasion applications.

**Applications**

BISPLATE® 500 is the hardest steel produced by Bisalloy Steels and offers exceptionally long life in sliding abrasion applications such as:

- Dump truck wear liners
- Chutes
- Wear liners
- Earthmoving buckets
- Cutting edges
- Ground engaging tools

**Available Sizes**

| Thickness (mm) | Size (Width mm x Length m) |
|----------------|----------------------------|
| 8 - 50         | 2485 x 8                   |
| 60             | 2485 x 6                   |
| 70             | 1900 x 6                   |
| 75 - 100       | 1525 x 6                   |

(Other widths/lengths available on enquiry)

**Chemical Composition, Weight % (Max)**

| Thickness (mm) |         | C    | P     | Mn   | Si   | S     | Ni   | Cr   | Mo   | B     | CE(IIW)* | CET* |
|----------------|---------|------|-------|------|------|-------|------|------|------|-------|----------|------|
| 8 - 100        | Maximum | 0.32 | 0.025 | 0.40 | 0.35 | 0.008 | 0.35 | 1.20 | 0.30 | 0.002 | 0.62     | 0.40 |

\*Typical Average

**Mechanical Properties**

| Properties               | Specification | Typical  |
|--------------------------|---------------|----------|
| 0.2% Proof Stress        | –             | 1400 MPa |
| Tensile Strength         | –             | 1640 MPa |
| Elongation in 50 mm G.L. | –             | 10%      |



**Charpy Impact Properties**

| Charpy Impact (Longitudinal), +20°C |                      |                           |            |
|-------------------------------------|----------------------|---------------------------|------------|
|                                     | Plate Thickness (mm) | Test Piece Size (mm x mm) | Energy (J) |
| Typical                             | 20 mm                | 10 x 10                   | 35         |

**Hardness**

Specification 477 – 534 HB  
Typical 500 HB

**Testing**

All testing is NATA approved

**Manufacturing  
Tolerances**

In accordance with AS/NZS 1365  
Tighter tolerances may be available on negotiation

**Surface Finish**

Shotblasted

**Plate Colour Code**

Black

**Fabrication**

BISPLATE® 500 is a medium carbon, high hardness, abrasion resistant steel. With appropriate attention to heat input, preheat and consumable selections, BISPLATE® 500 can be successfully welded to itself and a range of other steels by conventional techniques. Because of its high hardness, cold forming of BISPLATE® 500 is difficult, requiring higher bending and forming forces, and greater allowances must be made for springback. If heating is necessary, this should not exceed 200°C, otherwise mechanical properties might be affected.

For advice on fabrication refer to relevant Bisalloy technical brochures, contact Bisalloy direct or visit [www.bisalloy.com.au](http://www.bisalloy.com.au)

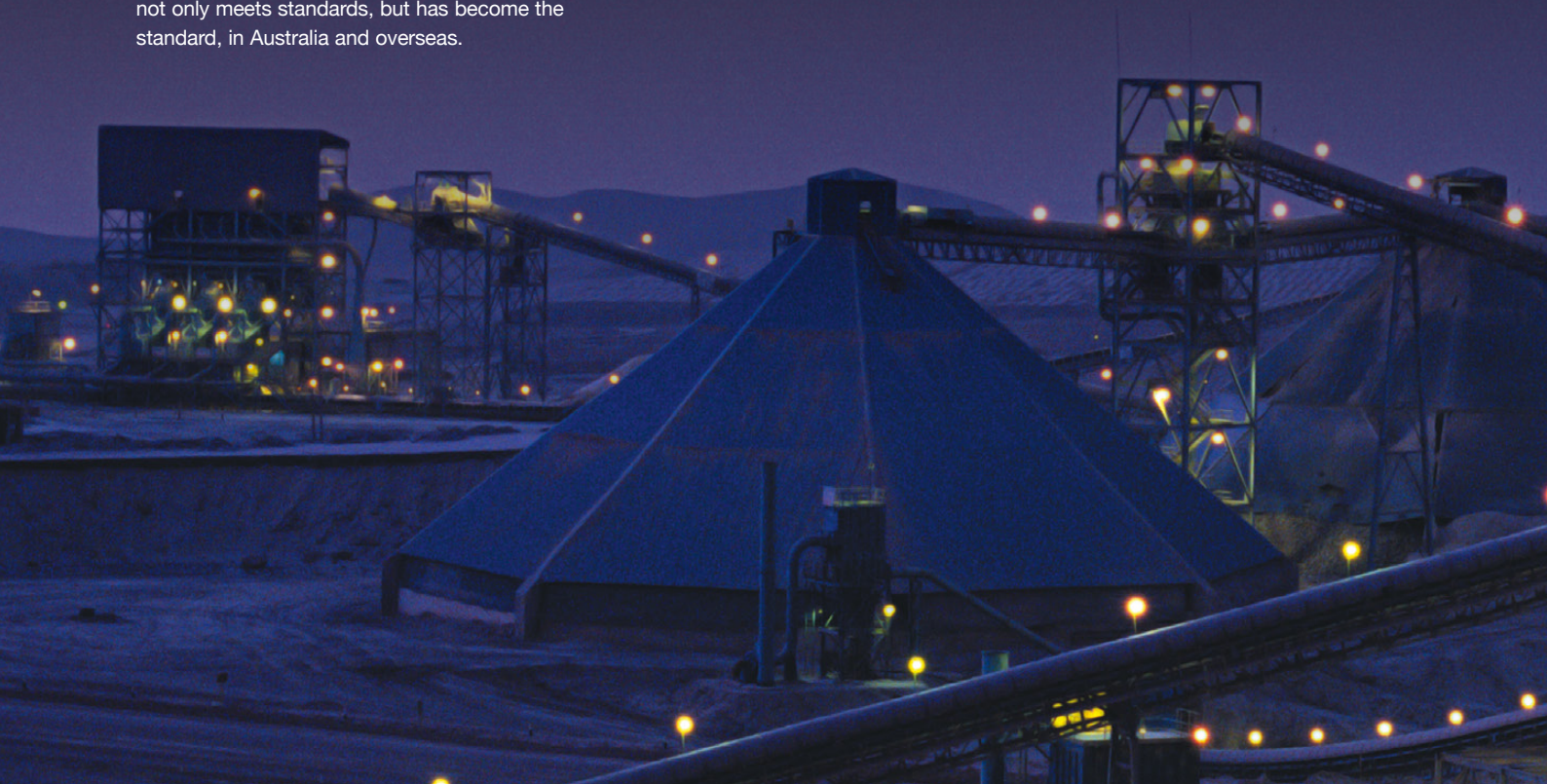






## Shaping Australia's Future

For over 30 years, Bisalloy has proved it's in its element as Australia's manufacturer of quenched and tempered steel plate. Plate that not only meets standards, but has become the standard, in Australia and overseas.



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#### **Disclaimer:**

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Images included in this manual are for illustrative purposes only. Images are indicative only of the type of applications which may use a Bisalloy Steels product.

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