

## BISALLOY® PROTECTION 500 STEEL

### Introduction

BISALLOY® PROTECTION 500 steel is a quenched and tempered steel suitable for use in applications where light weight and resistance to ballistic projectiles are critical, including armoured cars and limousines, patrol vehicles, valuable transportation and protected buildings and rooms.

### Brinell hardness

Thickness (mm)	Specification	Typical
2.5 - 50 <sup>1</sup>	477 - 534 HB	500 HB

### Mechanical properties

Property	Typical
0.2% Proof Stress	1350 MPa
Tensile Strength	1640 MPa
Elongation in 50 mm G.L.	10%
Charpy Impact (Longitudinal) - 40°C (10x10mm)	25 J

### Thickness tolerance

Thickness	Tolerance <sup>2</sup>
2.5 - 25mm	-0.0 + 1.0
>25 - 50mm	-0.0 + 1.2

### Test frequency

Per Plate	By Agreement
Hardness	Charpy (L), Charpy (T) Thickness, Tensile, Ballistic Properties, Product Analysis

### Fabrication

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

\* Typical for 12mm plate

<sup>1</sup> Other thicknesses may be available on application

<sup>2</sup> Tighter tolerance available by agreement

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 August 2020**