

## BISALLOY® ARMOUR RHA 300 STEEL

### Introduction

BISALLOY® ARMOUR RHA300 steel (Rolled Homogeneous Armour) - quenched and tempered steel armour plate suitable for use in military applications where light weight and maximum resistance to high rates of shock loading is required.

### Brinell hardness

Thickness (mm)	Specification	Typical
5 - 50 <sup>1</sup>	260-310 HB	280 HB

### Tensile properties

Property	Typical
0.2% Proof Stress	900 MPa
Tensile Strength	1000 MPa
Elongation in 50 mm GL	16%

### Charpy impact values

Thickness (mm)	Test Piece	Test Temp	Min. Energy (Transverse)	Min. Energy (Longitudinal)
5	10 x Thk	-40°C	By Agreement	By Agreement
6 - <8	10 x 5	-40°C	24J	24J
8 - <12	10 x 7.5	-40°C	37J	37J
≥12	10 x 10	-40°C	49J	49J

### Chemistry

The chemical specification conforms to the requirements of MIL-DTL-12560, although it is tighter than the requirements of that specification so as to optimise the material's performance. Product chemical analyses are taken on a per-heat basis. Chemical analysis is as follows:

#### Chemical composition

Thickness (mm)	Weight %	C	P	Mn	Si	S	Ni	Cr	Mo	B	CE(IIW)	CET
5 - 50 <sup>1</sup>	Maximum	0.32	0.025	1.50	0.60	0.005	0.50	1.20	0.30	0.002	0.61*	0.40*

### Thickness tolerance

Thickness (mm)	Special Tolerance
5 - 25	-0.0 + 1.0
>25 - 50	-0.0 + 1.2

### Test frequency

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

# PRODUCT DATA SHEET



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### Other

Equivalent Specification	Surface Finish
MIL - DTL - 12560 class 2	Shotblasted

### 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

† Other thicknesses may be available on application

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 November 2019**



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