PRODUCT **DATA SHEET**

Bisalloy ARMOUR

BISALLOY® ARMOUR 80A STEEL

Introduction

BISALLOY® ARMOUR 80A steel is a specialised armour grade of quenched and tempered steel armour plate suitable for use in military applications where the maximum resistance to high rates of shock loading is required.

Brinell hardness

Thickness (mm)	Specification	Typical
5 - 50[1]	-	255 HB

[1] Other thicknesses may be available on application

Tensile properties

Property	Specification
0.2% Proof Stress	690 MPa
Tensile Strength	790 MPa
Elongation in 50 mm GL	18%

Charpy impact values

Thickness (mm)	Test Piece	Test Temp	Min. Energy (Transverse)	Min. Energy (Longitudinal)
≥12	10 x 10	-40°C	-	40J

Chemical composition

Thickness (mm)	Weight %	C	P	Mn	Si	S	Cr	Mo	B	CE(IIW)*	CET*
5 - <30	Maximum	0.18	0.025	1.2	0.60	0.008	1.00	0.25	0.002	0.44	0.26
30 - 50	Maximum	0.18	0.025	1.3	0.60	0.008	1.00	0.25	0.002	0.54	0.32

* Typical average

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

Other

Equivalent Specification	Surface Finish
NIL	Shotblasted

Fabrication

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

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 2025**

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