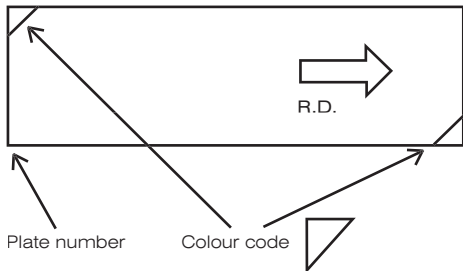


Plate Corners – two diagonal corners of the plate are coloured with the relevant grade colour code. One plate corner is hard stamped with the plate number.



Grade Colour Code

BISPLATE® 60	- White
BISPLATE® 70	- Lime Green
BISPLATE® 80	- Pink
BISPLATE® 80PV	- Pink/Red
BISPLATE® 320	- Light Blue
BISPLATE® 400	- Orange
BISPLATE® 450	- Yellow
BISPLATE® 500	- Black

Testing and Certification

MECHANICAL TESTING

Brinell Hardness Test – Brinell hardness test is performed in accordance with the requirements of AS 1816 – 1990. All plates are individually hardness tested.

Tensile Tests – Structural steel grades only are tensile tested in accordance with the requirements of AS1391 – 1991 and these tensile tests are done on a batch basis, per requirement of AS 3597.

Charpy V-Notch Impact Tests – Structural steel grades only are impact tested. Charpy V-Notch tests are done on a batch basis, per requirement of AS 3597.

Standard test direction is longitudinal and standard test temperature is -20 deg C.

Tests conducted in accordance with AS 1544.2 – 1989 requirements

CERTIFICATION

A separate NATA certified test certificate will be issued for each full plate supplied. Tests are conducted in our NATA certified laboratory and will detail chemical analysis, hardness and relevant mechanical test information dependent on the grade ordered.

NATA ACCREDITED LABORATORY

THIS LABORATORY IS ACCREDITED BY THE NATIONAL ASSOCIATION OF TESTING AUTHORITY (NATA) AUSTRALIA. THE TESTS REPORTED HEREIN HAVE BEEN PERFORMED IN ACCORDANCE WITH THE TERMS OF ACCREDITATION. THIS DOCUMENT SHALL NOT BE REPRODUCED WITHOUT THE LABORATORY'S WRITTEN PERMISSION.

Bisalloy Steels

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TEST CERTIFICATE

PRINT DATE: 15/05/2006
 ISSUE DATE: 2/01/2005
 CERTIFICATE NO: 265113

CUSTOMER: VULCAN STEEL 29 NEALES ROAD EAST TAMAKI NEW ZEALAND		SPECIFICATION: BISPLATE 80 :AS397-1993 GRADE 700												
CHEMICAL ANALYSIS		PERCENTAGE OF ELEMENT BY MASS												
HEAT No	ANALYSIS	C	P	Mn	Si	S	Ni	Cr	Mo	Cu	Al	Sn	Ti	B
9423145	LADLE	0.165	0.010	1.280	0.180	0.002	0.021	0.016	0.300	0.002	0.017	0.000	0.019	0.0018
		CA = 0.007 N = 0.046 NB = 0.010 V = 0.000 C(ETW) = 0.1913												
HEAT TREATMENT DETAILS:		93C WQ 610C QT												
MECHANICAL TESTS		TEST METHODS			AS 1391			AS 1816			AS 1544			
CUSTOMER QING	ITEM NO.	SERIAL NO.	PLATE SIZE		0.2% PROOF STRESS MPa	TENSILE STRENGTH MPa	ELONGATION %	EDGE CRACKS	HARDNESS HENW J10/3000	CHARPY V-NOTCH IMPACT TEST				
			WIDTH	THICKNESS						TEMP °C	ENERGY J	LATERAL DEVIATION (mm)		
124187	108650	62999			780	810	33	50	0.83	216	10 x 5	L	-30	85 08 04
124187	108650	63000	3500 x 8 x 6.000											

METRIC/IMPERIAL CORRECTION FACTORS PER ASTM E888

Temp = 28.86mm
 Dia = 0.00001mm
 W = (W x 1.8) + 3.2
 Th. W = 1.25000mm

*** Plate No 62999 is a BATCH TEST plate only ***

THE ABOVE CHEMICAL ANALYSIS ARE REPRODUCED FROM AUCOSCOPE STEEL LIMITED INDUSTRIAL ANALYSIS NATA ENDORSED TEST LABORATORY NO. 5025

WE CERTIFY THAT THE ABOVE INFORMATION IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD AND CONFORMS TO THE SPECIFICATION AS STATED.

BISALLOY STEEL CERTIFICATE NO. Q31395

DATE: 10/02/2005

R.11110 Sargent
 NATA SIGNATORY

Hardness Testing BISPLATE®

WHAT IS HARDNESS?

Hardness is the resistance of material to plastic deformation – usually by indentation or penetration. It also defines the ability of material to resist scratching, abrasion or cutting.

WHY TEST FOR IT?

Hardness testing is undertaken to:

1. Specify and certify a range of wear resistance products.
2. Double check the tensile strength of structural grade materials.
3. Assist in failure analyses and material identification.