


TEST CERTIFICATE

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Certificate No.: 105707
Transmission Date: 12/03/21

Customer: H J ASMUSS AND CO LTD PO BOX 14-441 AUCKLAND	Supplier: INFRABUILD STEEL SYDNEY, N.S.W. AUSTRALIA A.B.N. 42 004 651 325
Ship To: TAURANGA CD WELLINGTONTAURANGA,	Sales Order No: Z1216 Printed on: 12/03/2021

 <p>Accredited for compliance with ISO/IEC 17025 - Testing. This document shall not be reproduced except in full.</p>	<p>Chemical results as identified are from InfraBuild Steel NSW 2482 Approved Signatory - A. Prasad Mechanical results as identified are from InfraBuild Steel NSW 0279 Approved Signatory - G. Irani</p>
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STEELMAKING: Electric Arc - Billet Cast

INSPECTION: Supplier
CERTIFICATION: Supplier

ITEMS COVERED BY THIS TEST CERTIFICATE

Item No	Heat No	Customer Order	Section	Grade
0123X	760467	110867	50MM X 12MM S.E. FLAT	300PLUS (AS/NZS 3679.1-300)

CHEMICAL ANALYSIS

Percentage of element by mass (L=Cast, P=Product, -S=Soluble, -T=Total, CF=Chemical Formula, n=Min, x=Max)

Element	Carbon (C)	Phosphorus (P)	Manganese (Mn)	Silicon (Si)	Sulfur (S)	Nickel (Ni)	Chromium (Cr)	Molybdenum (Mo)
Percentage (%)	0.20	0.012	11	32	55	99	0.068	0.01
Element	Aluminium (Al-T)	Niobium (Nb)	Titanium (Ti)	Boron (B)	Vanadium (V)	CF1	Copper (Cu)	
Percentage (%)	0.001	0.001	0.001	0.0003	0.003	8	0.22	

$$CF1 = C + MN/6 + (CR + MO + V)/5 + (NI + CU)/15$$

MECHANICAL TESTING

Tensile AS 1391

Item No	Heat No	NATA Lab	Cat	YS MPa	UTS MPa	Lo	ELONGN %
0123X	760467	0279	B	345	500	A	30
0123X	760467	0279	B	355	500	A	31

Yield Strength - determined in accordance with requirements of nominated product standard

TEST CATEGORY (Cat) B=Batch

GAUGE LENGTH (Lo) A = 5.65 * square root of the original cross-sectional area of the test piece

BUNDLES

Item No	Heat No	Bundles
0123X	760467	RM3642066

COMMENTS

INFRABUILD STEEL SYDNEY IS QUALITY ENDORSED TO ISO 9001 UNDER SAI GLOBAL. CERTIFICATE NO: QEC2212. LAB 2482 - THE METHODS OF SAMPLING AND CHEMICAL ANALYSIS ARE CARRIED OUT IN ACCORDANCE TO IN-HOUSE PROCEDURES SWP/NQ779 & SWP.CCM.004; LAB 0279 - SAMPLING CONDUCTED IN ACCORDANCE TO IN-HOUSE PROCEDURE SWP/MT11. MECHANICAL TESTING CONDUCTED IN ACCORDANCE TO THE REFERENCED STANDARD.

To view Measurement Uncertainty [click here](#)