



Product Test Certificate	15072	12/08/2015
	Number	Date

Line	Pack NoNo included		RHS/SHS/CHS Nominal Size (mm)				Specification	Grade	Steel Supplier	Testing Authority/ NATA (ILAC) No			Steelmaking process
	From	To	d /do	b	t	L				Tensile	Impact	Chemical	
1	15222M10021	15222M10023	50	25	2	Any	AS1163	C350 L0	Bengang Steel	MTL/17219		Bengang Ste	BO,CC
2	15222M10024	15222M10037	50	25	3	Any	AS1163	C350 L0	Hyundai Steel	MTL/17219		Hyundai Ste	BO,CC
3	15223M10001	15223M10013	100	50	2	Any	AS1163	C350 L0	Bengang Steel	MTL/17219		Bengang Ste	BO,CC
4	15223M10014	15223M10020	100	50	2.3	Any	AS1163	C350 L0	Bengang Steel	MTL/17219		Bengang Ste	BO,CC
5	15223M10021	15223M10023	100	50	2.5	Any	AS1163	C350 L0	Bengang Steel	MTL/17219		Bengang Ste	BO,CC
6	15223M10024	15223M10028	100	50	2.3	Any	AS1163	C350 L0	Bengang Steel	MTL/17219		Bengang Ste	BO,CC

Line	STEEL CHEMICAL ANALYSES (%)-As supplied by Steelmaker ("L")																MECHANICAL TEST RESULTS (Orientation-"L")									
	HEAT No	C	P	Mn	Si	S	Ni	Cr	Mo	Cu	Al	Ti	Nb	V	B	CE	SiE	Testing Report No- Sample ID	Condition	Tensile test			Impact test at 0°C			
		x100															YS			TS	E	1	2	3	Ave	
1	1476680A	16.0	1.0	57.0	3.0	0.5					2.3					27	6	T2974-3421	A	398	475	34				
2	N46997	16.0	1.2	93.0	1.0	0.7	1.0	2.0	0.0	1.8	3.0	0.1	1.0	0.1	0.01	33	4	T2974-3422	A	555	628	19				
3	1476680A	16.0	1.0	57.0	3.0	0.5					2.3					27	6	T2974-3423	A	360	450	34				
4	1476680A	16.0	1.0	57.0	3.0	0.5					2.3					27	6	T2974-3424	A	444	527	23				
5	1532040	15.0	1.0	70.0	1.0	0.8					2.8					28	4	T2974-3425	A	420	505	34				
6	1476680A	16.0	1.0	57.0	3.0	0.5					2.3					27	6	T2974-3424	A	444	527	23				

Notes: 1) CE=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15; 2) SiE=Si+2.5P; 3) Gauge Length for E= 5.65VSo; 4) Impact test piece thickness is 5 mm; 5) For t less than 6 mm L0 properties derived as per Cl 10.6.2.2 of AS/NZS 1163; 6) Data in the table refers to the samples representative for each line; 7) BSL=BlueScope Steel; YPE=Yien Phui Enterprise CO., LTD; BO,SC= Basic Oxygen,Continuous (Slab) Casting; ALS=Australian Laboratory Services Industrial; 8) The production date in the format yyddd constitutes the first 5 digits of the pack number and is printed on each length; 9) Information provided by BSL " STEEL FEED: IN ACCORDANCE WITH CLAUSES 6 AND 10.6.2.2 OF AS/NZS 1163:2009 THESE COILS WERE PRODUCED FROM ALUMINIUM FULLY KILLED, FINE GRAINED STEEL AND ALUMINIUM HAS BEEN USED AS THE GRAIN REFINING ELEMENT".

Packs covered by this certificate

Line	Heat	Pack numbers
1	1476680A	15222M10021 15222M10022 15222M10023
2	N46997	15222M10024 15222M10025 15222M10026 15222M10027 15222M10028 15222M10029 15222M10030 15222M10031 15222M10032 15222M10033 15222M10034 15222M10035 15222M10036
	N46997	15222M10037
3	1476680A	15223M10001 15223M10002 15223M10003 15223M10004 15223M10005 15223M10006 15223M10007 15223M10008 15223M10009 15223M10010 15223M10011 15223M10012 15223M10013
4	1476680A	15223M10014 15223M10015 15223M10016 15223M10017 15223M10018 15223M10019 15223M10020
5	1532040	15223M10021 15223M10022 15223M10023
6	1476680A	15223M10024 15223M10025 15223M10026 15223M10027 15223M10028

Australian Pipe & Tube confirms that products listed above were manufactured, tested, and supplied in full compliance with the specifications quoted in this certificate

Authorized signatory: ***R.Fisher***