

Product Test Certificate	13076	1/08/2013
	Number	Date

Line	Pack NoNo included		RHS/SHS/CHS Nominal Size (mm)				Specification	Grade	Steel Supplier	Testing Authority/ NATA (ILAC) Accreditation No			Steelmaking process
	From	To	d /do	b	t	L				Tensile	Impact	Chemical	
1	13210M10012	13210M10020	50	50	2	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
2	13210M10021	13210M10033	50	50	2.5	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
3	13210M10034	13210M10044	50	50	3	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
4	13210M10045	13210M10058	50	50	4	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
5	13210M10059	13210M10080	50	50	5	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
6	13210M10084	13210M10094	65	35	3	Any	AS/NZS 1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9

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	CE	SiE	Testing Report No- Sample ID	Condition	Tensile test			Impact test at 0°C				
		x100																	YS	TS	E	1	2	3	Ave	
																			MPa		%		Joules			
1	7353759	14.8	1.3	73.0	0.6	0.9	1.1	1.6	0.4	1.8	4.2	0.2	0.1	0.3	28	4	T 2372-1464	A	435	505	23					
2	7359039	15.0	1.5	78.0	0.7	1.3	1.0	2.0	0.3	2.2	3.9	0.2	0.1	0.3	29	4	T 2372-1465	A	453	524	25					
3	6350809	15.2	1.5	75.0	0.5	1.3	1.3	1.6	0.6	2.1	3.3	0.2	0.1	0.3	29	4	T 2372-1466	A	461	529	24					
4	7351369	14.9	1.7	96.0	0.9	1.1	1.4	2.0	0.3	2.6	2.7	0.2	1.4	0.3	32	5	T 2372-1467	A	481	554	21					
5	6354539	15.0	1.1	94.0	0.5	0.6	1.0	1.2	0.4	2.3	2.6	0.2	1.4	0.3	32	3	T 2372-1468	A	529	591	21					
6	7340429	15.4	1.5	74.0	0.8	1.2	1.1	2.0	0.2	1.6	4.2	0.2	0.1	0.3	29	5	T 2372-1469	A	486	541	24					

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 the steel supplier " 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	7353759	13210M10012 13210M10013 13210M10014 13210M10015 13210M10016 13210M10017 13210M10018 13210M10019 13210M10020
2	7359039	13210M10021 13210M10022 13210M10023 13210M10024 13210M10025 13210M10026 13210M10027 13210M10028 13210M10029 13210M10030 13210M10031 13210M10032
	7359039	13210M10033
3	6350809	13210M10034 13210M10035 13210M10036 13210M10037 13210M10038 13210M10039 13210M10040 13210M10041 13210M10042 13210M10043 13210M10044
4	7351369	13210M10045 13210M10046 13210M10047 13210M10048 13210M10049 13210M10050 13210M10051 13210M10052 13210M10053 13210M10054 13210M10055 13210M10056
	7351369	13210M10057 13210M10058
5	6354539	13210M10059 13210M10060 13210M10061 13210M10062 13210M10063 13210M10064 13210M10065 13210M10066 13210M10067 13210M10068 13210M10069 13210M10070
	6354539	13210M10071 13210M10072 13210M10073 13210M10074 13210M10075 13210M10076 13210M10077 13210M10078 13210M10079 13210M10080
6	7340429	13210M10084 13210M10085 13210M10086 13210M10087 13210M10088 13210M10089 13210M10090 13210M10091 13210M10092 13210M10093 13210M10094

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

Authorized signatory: *R.Fisher*