



Product Test Certificate	15135	17/12/2015
	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	15343M10001	15343M10010	100	50	4	Any	AS1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
2	15343M10011	15343M10018	100	50	5	Any	AS1163	C350 L0	BSL	MTL/17219		BSL/632	BO,CC +note 9
3	15343M10019	15343M10026	100	50	5	Any	AS1163	C350 L0	Hyundai Steel	MTL/17219		KOLAS/533	BO,CC +note 9
4	15343M10027	15343M10032	100	50	6	Any	AS1163	C350 L0	BSL	MTL/17219	MTL/17219	BSL/632	BO,CC +note 9
5	15343M10033	15343M10048	100	50	2.5	Any	AS1163	C350 L0	YPE	MTL/17219		SS/19570	BO,CC
6	15343M10052	15343M10066	75	75	2.5	Any	AS1163	C350 L0	YPE	MTL/17219		SS/19570	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
		MPa	%		Joules																					
1	7474009	14.9	1.7	101.0	1.3	0.8	1.3	2.6	0.4	3.5	3.7	0.2	1.6	0.3	0.0	32.7	32.7	T3067-3836	A	465	564	29				
2	7474019	14.9	1.6	75.0	0.7	0.5	2.2	3.1	0.4	2.4	3.5	0.2	0.1	0.3	0.03	28	28	T3067-3837	A	475	554	26				
3	N54336	16.0	1.4	104.0	1.3	0.5	1.0	2.0	0.0	1.8	2.8	0.1	1.7	0.1	0.01	34	34	T3067-3838	A	469	560	29				
4	7474009	14.9	1.7	101.0	1.3	0.8	1.3	2.6	0.4	3.5	3.7	0.2	1.6	0.3	0.03	33	33	T3067-3839	A	485	558	25	61	54	63	63
5	15Y4-5845	16.0	2.2	66.0	2.0	1.3	1.0	2.0	1.0	1.0	4.7	1.0	2.0	1.0	0.05	28	28	T3067-3840	A	483	561	27				
6	15Y5-4804	17.0	2.1	65.0	3.0	1.5	1.0	1.0	1.0	1.0	5.4	1.0	3.0	1.0	0.05	29	29	T3067-3843	A	471	554	30				

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	7474009	15343M10001	15343M10002	15343M10003	15343M10004	15343M10005	15343M10006	15343M10007	15343M10008	15343M10009	15343M10010		
2	7474019	15343M10011	15343M10012	15343M10013	15343M10014	15343M10015	15343M10016	15343M10017	15343M10018						
3	N54336	15343M10019	15343M10020	15343M10021	15343M10022	15343M10023	15343M10024	15343M10025	15343M10026						
4	7474009	15343M10027	15343M10028	15343M10029	15343M10030	15343M10031	15343M10032								
5	15Y4-5845	15343M10033	15343M10034	15343M10035	15343M10036	15343M10037	15343M10038	15343M10039	15343M10040	15343M10041	15343M10042	15343M10043	15343M10044	15343M10045	
	15Y4-5845	15343M10045	15343M10046	15343M10047	15343M10048										
6	15Y5-4804	15343M10052	15343M10053	15343M10054	15343M10055	15343M10056	15343M10057	15343M10058	15343M10059	15343M10060	15343M10061	15343M10062	15343M10063	15343M10064	
	15Y5-4804	15343M10065	15343M10066												

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**