



<b>Product Test Certificate</b>	<b>15110</b>	<b>10/11/2015</b>
	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	15299M10071	15299M10080	75	75	4	Any	AS1163	C350 L0	YPE	MTL/17219	MTL/17219	YPE	BO,CC
2	15299M10081	15299M10089	75	75	2.5	Any	AS1163	C350 L0	Hyundai Steel	MTL/17219	MTL/17219	Hyundai Steel	BO,CC
3	15300M10001	15300M10015	75	75	4	Any	AS1163	C350 L0	YPE	MTL/17219	MTL/17219	YPE	BO,CC
4	15300M10016	15300M10019	75	75	2.5	Any	AS1163	C350 L0	YPE	MTL/17219	MTL/17219	YPE	BO,CC
5	15300M10025	15300M10047	100	50	1.6	Any	AS1163	C350 L0	Hyundai Steel	MTL/17219	MTL/17219	Hyundai Steel	BO,CC
6	15300M10048	15300M10080	100	50	1.6	Any	AS1163	C350 L0	YPE	MTL/17219	MTL/17219	YPE	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	55L564A001	14.0	3.0	53.0	1.2	0.8					3.3					24	9	T3030-3651	A	494	567	25				
2	KFJ457202/2	16.0	1.5	94.0	1.4	0.7	1.0	2.0	0.0	1.9	2.8	0.1	0.9	0.1	0.01	33	5	T3030-3652	A	424	534	32				
3	55L564A001	14.0	3.0	53.0	1.2	0.8					3.3					24	9	T3030-3651	A	494	567	25				
4	54L496B002	12.0	3.0	51.0	1.2	0.8					3.3					24	9	T3030-3645	A	406	463	28				
5	14MD6580	14.9	1.8	49.0	1.6	0.9					0.0					24	6	T3031-3646	A	377	484	40				
6	55L602B003	12.0	3.0	55.0	1.2	0.8					3.2					24	9	T3031-3647	A	336	424	44				

**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	55L564A001	15299M10071 15299M10072 15299M10073 15299M10074 15299M10075 15299M10076 15299M10077 15299M10078 15299M10079 15299M10080
2	KFJ457202/2	15299M10081 15299M10082 15299M10083 15299M10084 15299M10085 15299M10086 15299M10087 15299M10088 15299M10089
3	55L564A001	15300M10001 15300M10002 15300M10003 15300M10004 15300M10005 15300M10006 15300M10007 15300M10008 15300M10009 15300M10010 15300M10011 15300M10012 15300M10013
	55L564A001	15300M10014 15300M10015
4	54L496B002	15300M10016 15300M10017 15300M10018 15300M10019
5	14MD6580	15300M10025 15300M10026 15300M10027 15300M10028 15300M10029 15300M10030 15300M10031 15300M10032 15300M10033 15300M10034 15300M10035 15300M10036 15300M10037
	14MD6580	15300M10038 15300M10039 15300M10040 15300M10041 15300M10042 15300M10043 15300M10044 15300M10045 15300M10046 15300M10047
6	55L602B003	15300M10048 15300M10049 15300M10050 15300M10051 15300M10052 15300M10053 15300M10054 15300M10055 15300M10056 15300M10057 15300M10058 15300M10059 15300M10060
	55L602B003	15300M10061 15300M10062 15300M10063 15300M10064 15300M10065 15300M10066 15300M10067 15300M10068 15300M10069 15300M10070 15300M10071 15300M10072 15300M10073
	55L602B003	15300M10074 15300M10075 15300M10076 15300M10077 15300M10078 15300M10079 15300M10080

**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**