

Fuzhou Lexfit Plastic Co., Ltd

TEST REPORT NO.: J210104001-2



T <i>i i i</i>		1 0 0001
lest standard:	Issue Date:	Jun 9, 2021
AS/NZS 1260: 2017	Revised Date:	N/A
PVC-U pipes and fittings for drain, waste and vent applications	Total Pages:	19
	Document Control No.:	TRF AS/NZS 1260: 2017

Applicant's name	Fuzhou Lexfit Plastic Co., Ltd	
Address:	Chikeng Industrial Zone, Long China	gtian Town, Fuqing City, Fujian Province,
Trade Mark:	LEXFIT/PLUMFIT/AQUALINE	/ER PVC/
Manufacturer:	Quanzhou Xingyuan New Ma	terial Technology Co., Ltd
Testing Laboratory name:	Guangzhou Intelligence Quali	ty Assurance Co., Ltd
Address:	DeShi Science and Technolog Guangzhou Science City, GE	gy Parks No. 46 Nan Xiang San Road, TDD, Guangzhou, 510663 China
Testing location:	Same as above	
Tel :	+86 20 8202 8651	
Email:	service1@iqa-testing.com	
Test item description	PVC-U pipes and fittings	
Date of receipt of test item :	May 7, 2021	
Date (s) of performance of tests :	May 7, 2021 – May 31, 2021	
Tested by (name and signature) :	Harvey Lin	Harvey Lin
Approved by (name and signature) . :	Carson Qiu	Carson Qiu
Report contents:	Total test report 19 pages incl Cover page: 1 page Report text: 12 pages Appendix A for tested product Appendix B for revision page:	uding: photos: 5 pages 1 page
General remarks:		
The tested samples were delivered by the client This test report is only applicable for the tested s This test report should not be reproduced except	and were in good condition when receisample. t in full, without written approval of the	ived. laboratory.
Possible test case verdicts:		
 test case does not apply to the test object: N/A test object does meet the requirement: P (Pass test object does not meet the requirement: F (F When required a statement of conformity by ta ISO/IEC Guide 98-4: 2012 JCGM 106: 201 CNAS-GL015: 2018 RB/T 197: 2015 When required a statement of conformity but the Procedure 2 of IEC Guide 115: 2021 	s) Fail) king into account the measurement und 2 □ILAC-G8-03/09: 2009/2019 □Pro ne measurement uncertainty was not re	certainty, one of the following standards was used: cedure 1 of IEC Guide 115: 2021 equired to check, the following standards was used:

Summary of testing:

The submitted samples were tested and found to **COMPLY WITH** applicable requirements of AS/NZS 1260: 2017 according to the test plan.

General product information:					
No.	Model No.	Product Description			
1	10032	PVC DWV Pipe, 36.2-36.5			
2	100150	PVC DWV Pipe, 160.0160.5			
3	100475	PVC DWV Pipe, 500.0501.0			
4	10710045RH	45 Degree Side Access Plain Junction RH (Small Cap) DN100			
5	129100L	Inspection Pipe M/F (Large Cap) DN100			
6	128100	Pan Connector Offset M/F DN100			
7	AQ-FF100	Flexi Fin Pan Connector Straight DN100			
8	174805444	88 Degree Four Way Riser Junction M/F DN80*50*40*40*40			
9	17110088	88 Degree Bend Fitting M/F DN100			
10	11250	Female Connector DN50			
11	11332	Male Connector DN32			
12	179150	Screw Cap &Base Socket End Fitting DN150			
13	137150	Push On Cap DN150			
14	110100T	Straight Coupler (Threaded) DN100			
15	12410040	Socket Reducing Bush Fitting DN100*40			
16	1238065	Level Invert Taper M/F DN80*65			
17	140100	Pipe Saddle Clip DN100			
18	1598065	Floor Waste Gully Fitting DN80*65			
19	4770459	PVC Leak Control Socket Connector 80/50mm			
20	4770451	PVC Floor/Wall Flange 40mm			
21	4770462	PVC Leak Control Connector in Pipe 80mm			
22	4770456	PVC Leak Control Brass Waste Adaptor 50/40mm			
23	4770467	PVC Leak Control Brass Waste Adaptor 100mm			
24	4770461	PVC Leak Control Cap 80mm			
25	4770455	PVC Leak Control Socket Connector 50/40mm			
26	178100	Slab Repair Coupler DN100			

Remark:

1. Only listed the tested models.

2. Model 140100 was pipe saddle clip which was not contact with DWV and only used to fixed the pipe.

3. Model 4770451 was floor/wall flange which was not contact with DWV and only used to fixed the pipe.

4. Model 4770455, 4770456 and 4770458 made up a set of Leak control, which was connect to DWV pipe though 4770455. Same as follow models:
4770459, 4770460 and 4770461;
4770462, 4770463 and 4770461;
4770466, 4770467 and 4770468.

AS/NZS 1260: 2017			
Clause	Requirement - Test	Result - Remark	Verdict
2.2	Composition The material from which the pipe or fitting is produced shall consist of poly (vinyl chloride) (PVC) and suitable additives such as lubricants, pigments and stabilizers. The PVC content of the pipe or fitting shall be not less than 80% by mass. Additives shall include a minimum of 1.5 parts of rutile titanium dioxide (TiO2) pigment per 100 parts by mass of PVC content. The titanium dioxide pigment shall contain at least 90% by mass of TiO2. Establishment of the TiO2 content shall be by process control methods. This requirement does not apply to fittings with parallel sockets. Additives containing compounds based on lead (Pb), cadmium (Cd) or mercury (Hg) shall not be used except that recycled PVC-U material containing these elements may be used in the core of sandwich construction pipe. When determined in accordance with AS/NZS 1462.15, the vinyl chloride monomer level shall not exceed 1 mg/kg. If the pipe is manufactured from resin with a residual vinyl chloride monomer content of less than 1 mg/kg, this requirement shall be deemed to have been met. This requirement is not applicable to recyclate.	Manufacturer will provide the formula to certificate body. No recycled material was used.	
2.3	COLOUR Except where otherwise specified in this Clause the colour of pipes and fittings shall be grey, no lighter than the colour pearl grey N11 and no darker than the colour cloud grey N22 of AS 2700. For sandwich construction pipes, this requirement shall only apply to the outer wall. Fittings greater than DN 150 with parallel sockets have no colour requirement. Where specified by the purchaser for particular applications, the pipe and fittings may be white. NOTE: White pipe has been and is used for internal exposed situations. For export purposes, outside of Australia and New Zealand, the colour may be specified as required. NOTE: Compliance with the colour requirements may be evaluated by visual examination against the relevant colour reference of AS 2700. In the case of a dispute, measure the colour ordinates of the pipe or fitting.	Grey N12 or white as required by purchaser	Ρ
3.2.6	Softening temperature (Vicat test) When tested in accordance with AS/NZS 1462.5, the softening temperature of the pipes shall be not less than 76°C. This test does not apply to the intermediate layer of a sandwich wall pipe.	Model no. Softening temperature 10032 79.9°C 100150 80.1°C 100475 79.9°C	Р

	AS/NZS 1260: 2017		
Clause	Requirement - Test	Result - Remark	Verdict
3.3.1	Hydrostatic pressure test (applicable only to fittings with inspection or access openings and to fabricated fittings) When tested in accordance with the hydrostatic pressure test of AS/NZS 1462.8, at an internal pressure of 85 +5, -0 kPa for 60 +5, -0 min, the assembled fitting shall not leak.	For model 10710045RH and 129100L After test, there were no leakage.	Р
3.3.2	Hydrostatic pressure test (applicable to pan connectors) When connected to a minimum pan spigot complying with AS 1172.1, pan connectors shall be capable of withstanding a hydrostatic pressure of 2 +0.1, -0 m head of water for 5 +1, -0 min without any leakage.	For model 128100 and AQ-FF100 After test, there were no leakage.	Ρ
3.3.3	Liquid infiltration test (applicable only to fittings with inspection or test openings) When an assembled fitting, tightened to a torque of 15 +1, -0 N.m, where applicable, is subjected to an internal vacuum or external hydrostatic pressure resulting in a pressure differential of 80 +5, -0 kPa for 60 +5, -0 min, in accordance with AS/NZS 1462.8, it shall not leak.	For model 10710045RH and 129100L After test, there were no leakage.	Р
3.3.5	Softening temperature (Vicat test) When tested in accordance with AS/NZS 1462.5, the softening temperature of injection-moulded fittings shall be not less than 74°C. This test does not apply to the intermediate layer of a sandwich wall fitting.	Model Nominal Softening no. size temperature 11332 DN32 78.4°C 1238065 DN65 78.2°C 137150 DN150 78.2°C	P
5.2	DIMENSIONS OF MOULDED FITTINGS		
5.2.1	General Fitting dimensions shall be in accordance with the appropriate values set out in Tables 5.1 to 5.10.	Complied	Р
5.2.2	Spigot ends Outside diameters of spigot ends on moulded fittings shall comply with the values given for plain wall pipes in Table 4.1.	Model no.Spigot sizeMean outside diameter of spigot end (mm)174805444DN8082.6	Р
	be in accordance with Clause 5.3. Radiused or bevelled spigot ends shall extend for no more than 50% of the wall thickness (see Figure 5.1).	1/110088 DN100 110.3 1238065 DN80 82.6 129100L DN100 110.2	

AS/NZS 1260: 2017				
Clause	Requirement - Test	Result - Remark	Verdict	

			1
	Sockets on moulded fittings Sockets formed on the ends of fittings shall be parallel within 1° with the axis of the fitting. The dimensions of		
5.2.3	 within 1 with the taxls of the fitting. The dimensions of sockets on moulded fittings for solvent cement jointing shall be in accordance with Table 5.1 for tapered sockets and Table 5.2 for parallel sockets. If parallel, the mean inside diameter of the socket (Dsm) shall apply over the entire length of the socket. Sockets on moulded fittings for elastomeric seal jointing shall be in accordance with the requirements of Section 7. The jointing surfaces of tapered sockets on fittings for solvent cement jointing shall taper uniformly from the mouth to the root of the socket. Note: Injection-moulded fittings of diameters greater than DN 150 with parallel solvent-welded sockets are predominantly imported fittings and have not specific requirements for colour or titanium dioxide to provide UV protection. Additional marking requirements have been specified for these fittings to highlight the parallel sockets, the need for gap –filling solvent cements and UV protection when used outdoors. Push-on caps, vent cowls, safe waste trays and weathering aprons in accordance with the appropriate performance requirements of this Standard may be manufactured with socket lengths less than those specified in Table 5.1. 	Model 137150 was push-on caps. Nominal size: DN150 Socket length: 38.2mm Socket root diameter: 159.8mm Socket mouth diameter: 160.8mm Model 4770451 was flange used to fixed the pipe only. Nominal size: DN40 Socket length: 21.0mm Socket root diameter: 43.6mm Socket mouth diameter: 43.9mm For other models Refer to table below for details of socket.	Ρ

AS/NZS 1260: 2017				
Clause	Requirement - Test	Result - Remark	Verdict	

Dimension of tape	ered socket co	mplied with Table 5.2	of AS/NZS 1260:	
Madalina	Socket	Socket length	Socket root diameter	Socket mouth diameter
Model no.	size	(mm)	(mm)	(mm)
10710045RH	DN100	50.9	110.1	110.7
	DN40	27.5	42.5	43.3
174805444	DN50	30.6	55.5	56.2
	DN80	44.5	82.2	83.2
17110088	DN100	50.8	110.1	110.7
11250	DN50	30.5	55.7	56.1
11332	DN32	24.5	36.2	36.6
12410040	DN40	28.1	42.7	43.3
1238065	DN65	38.7	68.6	69.3
4500005	DN65	38.5	68.5	69.3
1598065	DN80	44.5	82.3	83.0
4770459	DN50	37.3	55.7	56.3
129100L	DN100	50.8	109.9	110.7
4770455	DN40	31.5	42.9	43.4
178100	DN100	50.1	109.8	110.7

Dimension of parallel socket complied with Table 5.2 of AS/NZS 1260:

Model r	10.	Socket size	Socket	length (mm)	nm) Mean socket inside diameter (mm)		r (mm)		
110100	т	DN100		51.3		110.5			
5.2.4	Tapered spigot ends for solvent cement jointing The dimensions of tapered spigot ends for solvent cement jointing shall be in accordance with Table 5.3. Tapered spigot ends shall only be used on fittings that constitute an entry point to the DWV system (e.g., pan connectors and floor grates) or on fittings that effect a change of size such as eccentricpers.			For other models Refer to table below.			Р		
Model	no.	Tapered spi	got size	Taper Length (mm)	n Mean	minor diameter (mm)	Mear	n major diam (mm)	eter
124100	040	DN10	0	50.5		102.8		104.9	
12810	00	DN10	0	50.2		102.8		105.0	
47704	62	DN80)	44.2		75.3		76.1	
17810	00	DN10	0	122.5		102.8		105.0	

AS/NZS 1260: 2017						
Clause	Requi	irement - Test			Result - Remark	Verdict
	WALL THICKNESS					
	the ap from c avera to or e	dance with AS/N ppropriate values propriate, except core shifting is pe ge of two opposi exceed the value	ZS 1462.1 shall be not le specified in Table 5.1 or T that a reduction of 5% re ermitted. In such cases, th te wall thicknesses shall l s given in Table 5.1 or Ta	ss than able 5.4, esulting he be equal ble 5.4.		
5.3	.3 For fittings with unequal sized connection ends, the wall thickness at any point shall be not less than the value specified in Table 5.1 or Table 5.4 for nominal size at that point.			Refer to table below.	P	
	For tapered fittings, the wall thickness of the tapered section shall be not less than the wall thickness specified in Table 5.4 for the larger diameter. NOTE: Fittings may be reinforced by external integral				t.	
1	ribs or other suitable means.					
Model	no.	Nominal size	Wall thickness (mm)	-		
1071004	10710045RH DN100 3.00		3.00	-		
		DN40	2.30	-		
174805	5444	DN50	2.55	-		
	DN8		2.95	-		
1/110	880	DN100	3.00	-		
1125	50	DN50	2.55	-		
1133	32	DN32	2.15	-		
1371	50	DN150	4.10	-		
11010	00T	DN100	3.20	-		
12410	040	DN40	2.35	-		
		DN100	3.15	-		
12380)65	DN65	2.65	-		
		DN80	2.85	-		
15980)65	DN65	2.70	-		
		DN80	2.95	-		
1281	00	DN100	3.45	-		
47704	159	DN50	3.10			
12910	00L	DN100	3.00			
47704	151	DN40	3.05			
47704	162	DN80	3.05	-		
47704	155	DN40	3.05			
1781	00	DN100	2.95			
5.4	GEON	METRY OF FITT	INGS			

AS/NZS 1260: 2017 Clause **Requirement - Test** Verdict **Result - Remark** Passage of a Model no. Size sphere (mm) 10710045RH DN100 98 174805444 **DN80** 72 17110088 DN100 98 48 11250 **DN50** Clear bore 11332 **DN32** 30 Where applicable, the clear bore of a fitting shall be 5.4.1 Ρ determined by its ability to accept passage of a sphere of 110100T DN100 98 appropriate diameter as given in Table 5.5. 12410040 **DN40** 36 1238065 60 DN65 1598065 **DN65** 60 4770459 **DN50** 48 129100L DN100 98 4770451 **DN40** 36 4770455 DN40 36 Sweep junctions and bends For sweep junctions (single or double) and bends having an angle (α) of 76° or greater, the dimensions marked 'b' and 'c' shall be in accordance with the Model no. b (mm) c (mm) dimensions given in Table 5.6. Ρ 5.4.2 17110088 35.89 36.29 NOTE: See Figures B1, B4, B6 and B7 for typical examples of sweep junctions (single or double) and bends. The tolerance on angles shall be $\pm 1^{\circ}$. Eccentric tapers Model no. Taper angle (α) The taper angle (α) shall be not greater than 45°. 5.4.3 Ρ 1238065 45° NOTE: See Figure B20 of Appendix B for an example of an eccentric taper. 5.4.4 Gullies **Disconnector gullies** Disconnector gullies shall be designed such that the top of the inlet is not more than 5mm below the invert of the 5.4.4.1 N/A outlet. The depth of seal shall be 50±5 or 75±10mm. NOTE: See Figure B25 of Appendix B for an example of a disconnector gully. Floor waste gullies Floor waste gullies shall be designed such that the Model no. Depth of seal (mm) 5.4.4.2 Р depth of seal is 75±10mm. 1598065 68 NOTE: See Figure B26 of Appendix B for an example of a floor waste gully. 5.4.6 Pan connectors

AS/NZS 1260: 2017				
Clause	Requirement - Test	Result - Remark	Verdict	

	Outlet						For	model 12	8100		
5.4.6.1	The outlet end of pan connectors shall be in accordance with Clause 5.2.2, Clause 5.2.3 or Table 5.3.					The outlet end of pan connectors was complied with Table 5.3.			Р		
						Refer to test result of clause 5.2.4.					
	Inlet						For model 128100				
5.4.6.2	5.4.6.2 The inlet end of pan connectors shall be designed with a flexible diaphragm for connection over the outlet spigot of a water closet pan in accordance with AS 1172.1. The material used for the flexible diaphragm shall be in accordance with the relevant material requirements of AS 1646					The inlet end of pan connectors was designed with a flexible diaphragm for connection over the outlet spigot of a water closet pan in accordance with AS 1172.1.			Р		
	Angle						Neit		040 1831 18	port.	
5.4.6.3	For DI conne	N 100 X DN 80 rec ctors, the angle (β	ducing or DI 3) shall be no	N 100 of ot greate	fset pan er than 3	0°.		Model no 128100).	Angle 30°	Р
	THRE	ADED END CONI	NECTIONS								
	Threaded ends for the connection of pipes and fittings shall conform with the relevant dimensions, configurations and types of fastening pipe threads specified in AS 2887.					gs					
	Note: See also Figure B15 of Appendix B for schematic illustration of thread end connections.					atic	Refer to tables below for the detail of thread. After applied a torque of 30 Nm, the threads were not damage.				
5.5	All threads shall be moulded only. The minimum thickness of the threaded end shall be not less than the appropriate values specified in Table 5.4, except in the case where the dimensions of threaded ends are as specified in AS 2887					the he				Ρ	
	All fittings with threaded ends shall be designed to include wrenching flats, lugs or ribs for restraining the					е					
	fitting while marking a joint.										
	All joints and connections shall be capable of being tightened without damage to the components of the fittings, or jumping or stripping of the threads, when a torque of 30+2 N m is applied										
Internally-threaded connection end was complied with Figure 1.3 of AS 2887											
Mode	Model no. Nominal size A (mm) Thread size Th				Th	nread	d length				
			E	B		C (mm)					
11250 DN50 55		55.4	G	62		23.8					
Externally	/-thread	ed connection end	d was comp	lied with	Figure 1	l.2 of	f AS	2887			
Mode	Model no. Nominal size Inside diameter Thread s		d siz	e	Thread	length]				
	A (mm) B		3		C (r	mm)					
11332		DN32	34.0 GB1 1/4			21	1.1				

^{5.6} Test openings

AS/NZS 1260: 2017					
Clause	Requirement - Test	Result - Remark	Verdict		

	-						
5.6.1	A test o specifie side en longitud of the te nomina size DN or inser NOTE: of a fitti Matchir	pening shall have a ed in Table 5.7. For f try test opening, the dinal centre-line of th est opening shall be I size DN100, and 1 I150. All test openin t plug (see Clause & See Figure B29 of A ng that incorporates of faces on opening ed and finished that	a minimum clear diamet ittings that incorporate maximum distance from the fitting to the highest a 120mm for fittings of 80mm for fittings of no tigs shall incorporate a 5.6.2). Appendix B for an exam is a side entry opening. Is and their seals shall when property assemb	Refer to table below	Ρ		
	and tight be in ac 3.3.1 ar	ntened down on the coordance with the r nd 3.3.3.	sealing face, the joint sequirements of Clause				
Mode	al no	Size of opening	Clear diameter	Dist	ance from the longitudinal centre-line of the		
Mode	, 110.	Olze of opening	(mm)	fitting	to the highest point to the test opening (mm)		
100710	045RH	DN100	111.7		104.9		
1101	00T	DN100	104.3		N/A		
5.6.2	Doors or insert plugs Doors or insert plugs of test openings shall fit so that they can be positioned in only one way relative to the bore of the fitting. If held in place by set screws or similar fixings, the fixings shall be of a corrosion-resistant material and so spaced that the door can be fitted in only one position. Tapped holes for set-screws shall be made so that the screws cannot protrude into the bore of the fitting. Doors or insert plugs shall fit flush with the bore of the fitting within ±1.0mm. Insert plugs shall be manufactured from PVC-U material in accordance with Clause 2.2. or other plastics having a Vicat softening point of not less than 74°C. The minimum wall thickness of any part of a plug that forms part of a waterway shall be not less thant minimum thickness for a plain wall fitting of the same DN (See Table 5.4).				For model 10710045RH Nominal size: DN100 The insert plug was designed to could be correct positioned only and made from the same PVC-U materials. The minimum wall thickness of plug was no less than 3.0mm.	Ρ	

AS/NZS 1260: 2017							
Clause	Requirement - Test	Result - Remark	Verdict				

5.6.3	Threaded caps All threads shall be moulded with the dimensions of threads on the cap and body being two-start Acme in accordance with Table 5.8. Threads shall have a minimum length of engagement of four full threads. Cap tops shall be designed such that mechanical leverage cannot be readily used to tighten the caps but can be used for loosening.	For model 100710045RH and 110100T The outside diameter of test opening body was 124.2mm and had a length of engagement of four full threads. For model 100710045RH The inside diameter of test opening cap was 120.6mm and had a length of engagement of four full threads. For model 179150 The inside diameter of test opening cap was 170.8mm and had a length of engagement of four full threads.	Ρ
5.7	Access Openings Where fittings incorporate an access opening, the opening shall be fitted with a plug or insert plug and cap. Plugs with a flat internal face shall finish flush with the bore of the fitting to within ±1mm, measured at a point where the fitting inside diameter is nearest to the surface of the plug, when assembled into the fittings. Loose insert plugs that are contoured to suit the bore of the fitting shall fit flush with the bore to within ±1.0mm and shall fit so that they orientate one way only, relative to the bore of the fittings. The plug shall make the opening watertight by means of a durable, compressible sealing ring or washer fittings incorporating access openings that shall be in accordance with the appropriate hydrostatic pressure test and liquid infiltration test requirements of Clause 3.3. Insert plugs shall be manufactured from PVC-U material in accordance with Clause 2.2 or from other plastics having a Vicat softening temperature not less than 74°C. The minimum wall thickness of any part of a plug that forms part of a waterway shall be not less than the minimum thickness for a plain wall fitting of the same DN (see Table 5.4). The minimum clear diameter of access openings shall be not less than that specified in Table 5.9. The plug or cap shall be secured to the boss on the fitting with either a moulded thread or equally suitable means. Threads shall have a minimum number of full threads engaged as specified in Table 5.10.	For model 129100L The fittings incorporate an access opening fitted with an insert plug and cap. The plug was made from the same material of fitting and made the opening watertight by a compressible sealing ring through a lockable cap. Minimum wall thickness of plug: 4.1mm Clear diameter of access opening: 156.2mm	Ρ









Page 18 of 19



Appendix B Revision Page

Revision No.	Date	Changes	Author	Reviewer
0	Jun 9, 2021	First issue	Harvey Lin	Carson Qiu