



Laboratory Report

Date **16-March-2015**

Customer **Yintec**
**Unit 13C, Level 3, 35-37 Princes Hwy Engadine NSW
2233**

Test No : **AZT0057.15.xls**



NATA Accredited Laboratory No : 15147

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TESTING LABORATORY REPORT



SIGNATORIES	Reported Robert Irwin by: <i>[Signature]</i>
	Checked Ashley Horne by: <i>[Signature]</i>

Date :	16-Mar-15
	Test No:
AZT0057.15.x Is	

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Wind and Water Penetration Testing

Testing to AS2047 and as per test method AS4420.0 to .6

Manufacturer / Customer

Yintec

Test Sample Data

Deflection Ratio

1
250

Unit type	Fixed Lite	
Unit code	Centre Glazed	
Size	H (mm)	2690
	W (mm)	1000
Design Pa:		

Tested For	Y / N	Rating	Units
Structural Deflection Positive	No	Not tested	Pa
Structural Deflection Negative	No	Not tested	Pa
Air Infiltration	Yes	75	Pa
Operating Force Initial / Constant	No	Not tested	N
Water Penetration	Yes	300	Pa
Ultimate Strength Positive	Yes	4000	Pa
Ultimate Strength Negative	Yes	4000	Pa

Test Unit Specifications

Results

Frame	Sash	Glass	Sizes		Area sq m	Glass Type	Structural Framing Member	Span (mm)	Allowable Deflection	Deflection Result	Actual Ratio	Test Press (Pa)	Results
			H	W									
			2690	1000	2.69		Interlock P			0.00			
			2645	1000	2.65		Interlock N			0.00			
					0.00		Mullion P			0.00			
					0.00		Mullion N			0.00			
			Thickness (mm)				Transom P			0.00			
			8.38	2562	922	2.36	Laminated			0.00			
							Transom N			0.00			
							H/L Trans P			0.00			
							H/L Trans N			0.00			
							H/L Mullion P			0.00			
							H/L Mullion N			0.00			
							Meet Style P			0.00			
							Meet Style N			0.00			
										0.00			
										0.00			

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Test equipments

The test equipment and methods used in the above test comply with the requirements of AS 4420.1-6.

Test Specimen

See drawings at the end of this report.

Test Methods

The test sample was fixed into the rig as outlined in AS 4420.1.

Deflection Test

The test sample was subjected to both positive and negative pressure as prescribed in AS 4420.2. After the initial settling in of the unit at 50% of the required test pressure, the differential pressure was then applied slowly until the nominated design pressure was reached in positive. This process was then repeated for the negative.

Results of Test

Not tested

Observations

Nil

Operating Force Test

A force gauge was attached to the operating handle of the sash to determine the force required to set the sash in motion and thereafter to maintain motion as per AS 4420.3.

Force in Newtons

		Force in Newtons	
		Opening Force	Closing Force
Initiating Movement	Sash 1		
Sustaining Movement	Sash 1		
Initiating Movement	Sash 2		
Sustaining Movement	Sash 2		
Initiating Movement	Sash 3		
Sustaining Movement	Sash 3		

Results of test

Not tested

Observations

Nil

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Air Infiltration Test

The test was first completely sealed as per AS 4420.4 to determine the air leakage of the test rig. It was then subjected to 75 Pa of both positive and negative pressure. Differential pressures were recorded. The test sample was then unsealed and subjected to 75 Pa of both positive and negative pressure. Differential pressures were recorded and air leakage then calculated. The actual leakage of the test sample was then determined.

Barometric pressure (Pbar):	1011		Air temperature (°C)	26
Max Pressure (Pa)	SEALED		UNSEALED	
	Positive (Pa)	Negative (Pa)	Positive (Pa)	Negative (Pa)
75	2	1	3	3

Test Pressure	Pressure Direction	Building / Window Type	Allowable leakage flow L/s m ²	Test results			
				Is ⁻¹ m ⁻² Positive	Is ⁻¹ m ⁻² Negative	Pos +	Neg -
75 Pa	+/-	Air conditioned	1.0	0.11	0.25	Passed	Passed
75 Pa	+	Non air conditioned	5.0	0.11	0.25	Passed	

Results of test

The test unit satisfied the requirement of AS 4420.4. The net flow readings are as per previous page:

Observations

Nil

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WATER PENETRATION

Water was applied to the exterior of the test sample with no less than 0.05 ls-1 m-2 for a period of five minutes at zero pressure. After five minutes, a nominated pressure was applied for fifteen minutes as per AS 4420.5.

Maximum pressure (Pa) applied for 15 minutes (Nominated pressure)

300

Results of test

The test unit satisfied the requirement of AS 4420.5 in positive pressure at the nominated design pressure.

Observations

Nil

ULTIMATE STRENGTH TEST

The test sample shall be subjected to a smoothly increasing differential pressure. The pressure shall be conducted in both a positive and negative direction as per AS 4420.6. The test pressure shall be

Max. pressure reached for 10 seconds	
Positive	Negative
4000	4000

Results of test :	Y or N
Dislodgement of any glass?	No
Dislodgement of a frame or any part of a frame?	No
Removal of alignment with or without its framing sash from a frame?	No
Loss of support of a frame such as when it is unstable in its opening in the building structure?	No
Failure of any sash, locking device, fasteners or supporting stay which would allow an opening light to come open?	No
The test unit satisfied the requirement of AS 4420.6.	

Observations

Nil