

# TEST REPORT



**AS 60529**  
**Degrees of protection provided by enclosures**  
**(IP 34)**

**Test Report**

Reference No.....: **12CA16200-SA00**

Tested by (+ signature).....: Rajasekar Perumanandham  
**ENGINEER**

Approved by (+ signature).....: Mahendrakumar Patel  
**SENIOR PROJECT ENGINEER**

Date of issue.....: 16 April 2012

Date of testing.....: April 2012

Contents.....: 6 pages

  
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**Laboratory details**

Name.....: **UL International New Zealand Ltd**

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Contact Details.....: Telephone (+64) 9 415 3355 Facsimile (+64) 9 415 3356

**Test specification**

Standard.....: AS 60529 – 2004

**Client details**

Applicant.....: Lake Products Ltd.

Address.....: 16 Beatrice Tinsley Crescent Albany Auckland NEW ZEALAND

**Product details** (see additional details on page 3)

Type of test object.....: Flexible Self Sealing Wall Boot

Model/type reference.....: Pipetite standard 0-25mm / Pipetite Grommet 0-25mm  
Pipetite standard 0-65mm / Pipetite Grommet 0-65mm

Rating.....: IP34

**Accreditation details**

  International Accreditation New Zealand (IANZ) has a Mutual Recognition Agreement (MRA) with the National Association of Testing Authorities, Australia (NATA) such that both organisations recognise accreditations by IANZ and NATA as being equivalent.

 All tests reported herein have been performed in accordance with the laboratory's scope of accreditation

TRF revision 100323

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**Possible results**

Test case does not apply to the test object ..... : N(.A.)

Test sample does meet the requirement..... : P(ass)

Test sample does not meet the requirement..... : F(ail)

**General remarks**

"(see remark #)" refers to a remark appended to the report.

"(see appended table)" refers to a table appended to the report.

"(see appended results)" refers to results appended to the report.

The test results presented in this report relate only to the samples tested.

The test samples were provided by the client and were tested as submitted.

This report does not contain corrections or erasures.

This report shall not be reproduced except in full without the written approval of the testing laboratory.

**Specific remarks**

Client submitted two boxes attached with following grommet for IP34 assessment according to AS 60529:2004:

- (1) Pipetite Standard 0-25mm
- (2) Pipetite Standard 0-65mm
- (3) Pipetite Grommet 0-25mm
- (4) Pipetite Grommet 0-65mm

The results of this test report apply to all the tested models unless otherwise specified.

**Statement of results**

The test samples were assessed for a classification of IP34 in accordance with the test specification.

The test samples COMPLY with the tests for a classification of IP34.



**AS 60529**

Clause	Requirement – Test	Remark	Result
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13.	TESTS FOR PROTECTION AGAINST SOLID FOREIGN OBJECTS INDICATED BY THE FIRST CHARACTERISTIC NUMERAL		
13.1	Test means and main test conditions as per Table 7		P
13.2	Test conditions for first characteristic numerals 1, 2, 3, 4		P
	Object probe pushed against any openings of the enclosure with a test force as specified in Table 7		P
	Object probe	2.5 mm (Ø) rod	
	Test force	3 N	
13.3	Acceptance conditions for first characteristic numerals 1, 2, 3, 4		P
	Full diameter of the object probe does not pass through any opening		P

14.	TESTS FOR PROTECTION AGAINST WATER INDICATED BY THE SECOND CHARACTERISTIC NUMERAL		
14.1	Test means and main test conditions as per Table 8		P
14.2	Test conditions		
	Tests conducted with fresh water as specified		P
	Water temperature	16 °C	
14.2.4	Test for second characteristic numeral 4 with the oscillating tube or spray nozzle		P
	Test means	oscillating tube	
	Enclosures subjected to spraying water through angle of almost 360°, 180° either side of vertical		P
	Water flow rate	0.07 l/min per hole	
	Test duration	10 min	
14.3	Acceptance conditions		P
	No water entered enclosure; or		P
	If water has entered:		N
	Not sufficient to interfere with correct operation of the equipment or impair safety		N
	Not deposited on insulation parts where it could lead to tracking along creepage distances		N
	Not reach live parts or windings not designed to operate when wet		N
	Not accumulate near cable end or enter cable		N
	Enclosure provided with drain holes; any water which enters does not accumulate and drains away		N
	Enclosure without drain holes, water cannot accumulate to reach live parts		N

**MEASUREMENT UNCERTAINTY**

The recorded measurement uncertainties apply to all measurements within this test report unless otherwise specified.

All measurement uncertainties have a stated uncertainty at a 95% confidence level.

Measurand (x)	Calibrated Range	Measurement Uncertainty
Voltage (AC/DC)	$x \leq 1\text{V}$	1.5%
	$1\text{V} < x \leq 1\text{ kV}$	1.0%
	$1\text{ kV} < x \leq 10\text{ kV}$	3.0%
Current (AC/DC)	$x \leq 1\text{A}$	1.5%
	$1\text{A} < x \leq 10\text{A}$	1.0%
	$10\text{A} < x \leq 100\text{A}$	1.5%
Power	$x \leq 10\text{ kW}$	0.5W
Resistance	$x \leq 320\ \Omega$	2%
	$320\ \Omega < x \leq 10\text{ M}\Omega$	1.0%
Frequency	$x \leq 1\text{ kHz}$	0.2%
	$1\text{ kHz} < x \leq 50\text{ kHz}$	0.1%
Temperature (thermocouple)	$x \leq 50^\circ\text{C}$	2°C
	$50^\circ\text{C} < x$	5°C
Temperature ( $\Delta$ resistance)	$x$	2°C
Length	$x \leq 150\text{ mm}$	0.06 mm
	$150\text{ mm} < x$	3.0 mm
Mass	$x \leq 300\text{g}$	1.5%
	$300\text{g} < x \leq 10\text{ kg}$	1.5%
	$10\text{ kg} < x \leq 50\text{ kg}$	0.2 kg
Force	0-500N	1.5%



REMARKS
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No remarks.

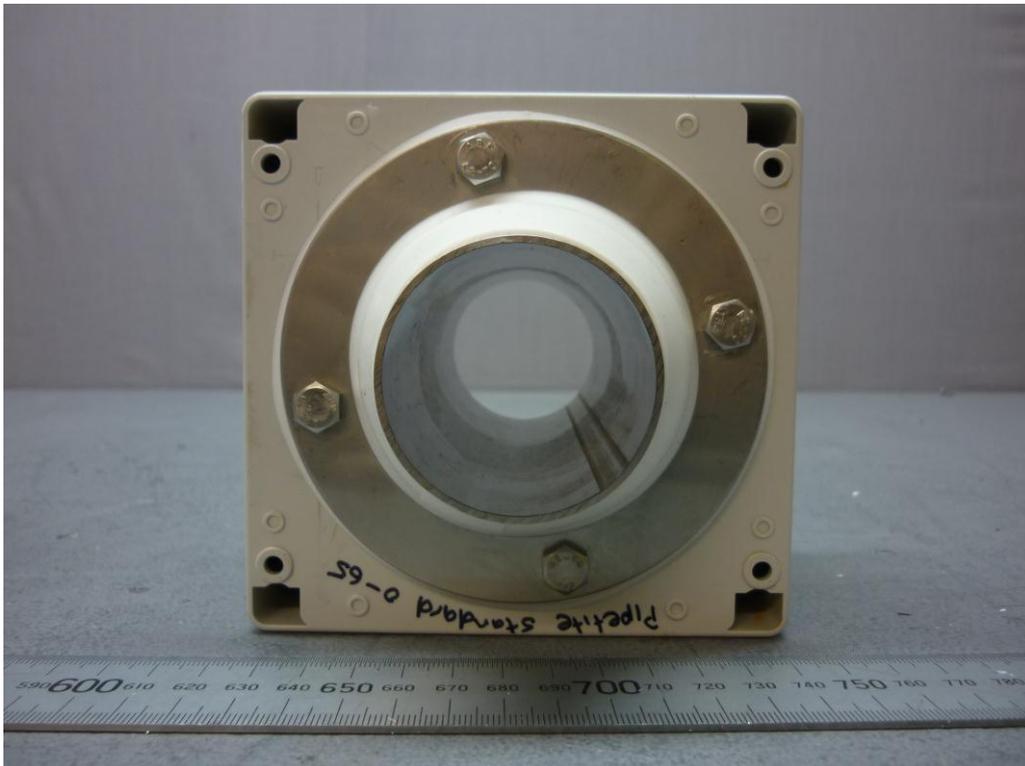
**\*\* END OF TEST REPORT \*\***



PHOTOGRAPH ATTACHMENT



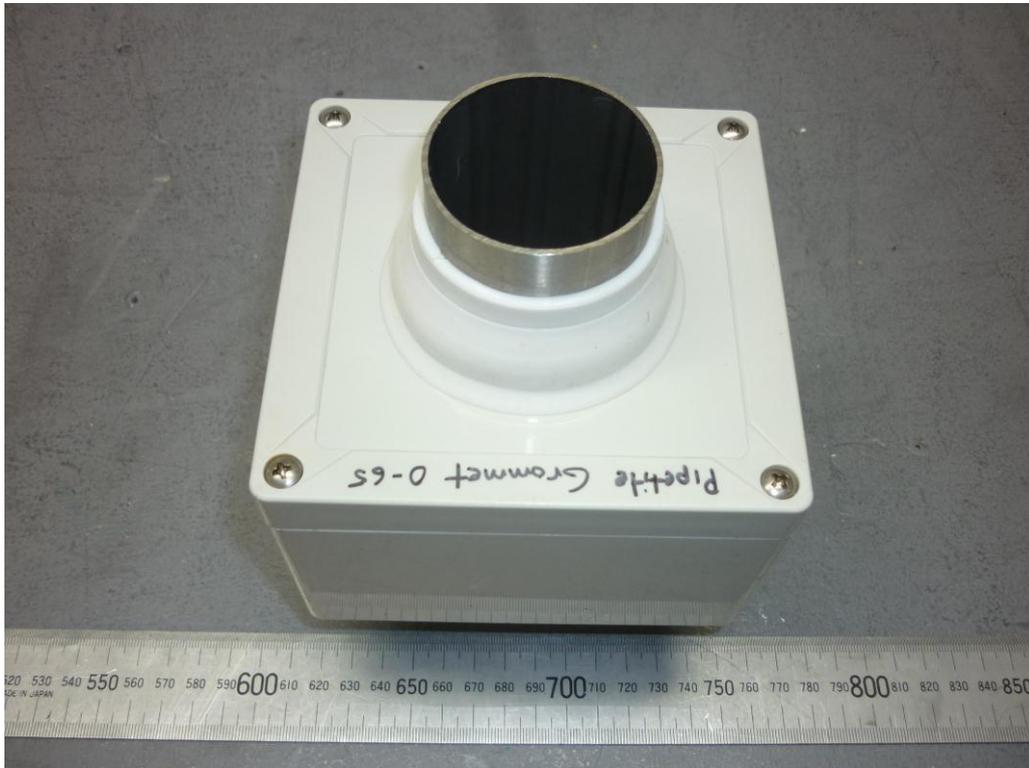
Pipette Standard 0-65mm & Pipette Grommet 0.65mm



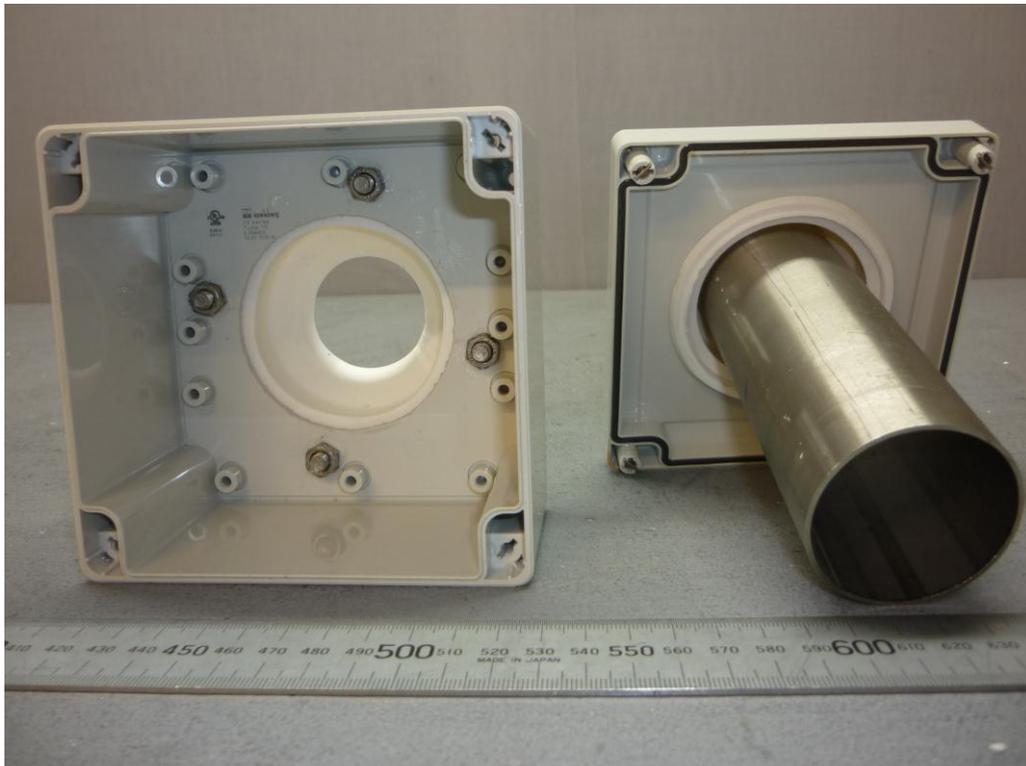
Assembly External View



PHOTOGRAPH ATTACHMENT



Assembly External View



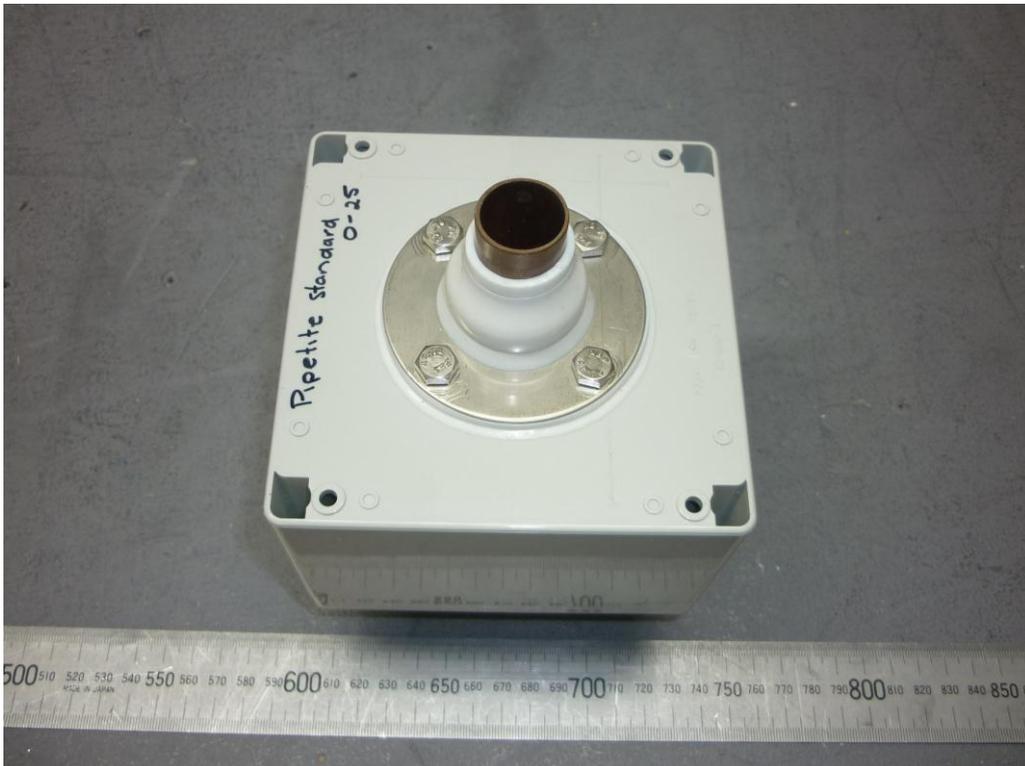
Assembly Internal View



PHOTOGRAPH ATTACHMENT



Pipette Standard 0-25mm & Pipette Grommet 0.25mm



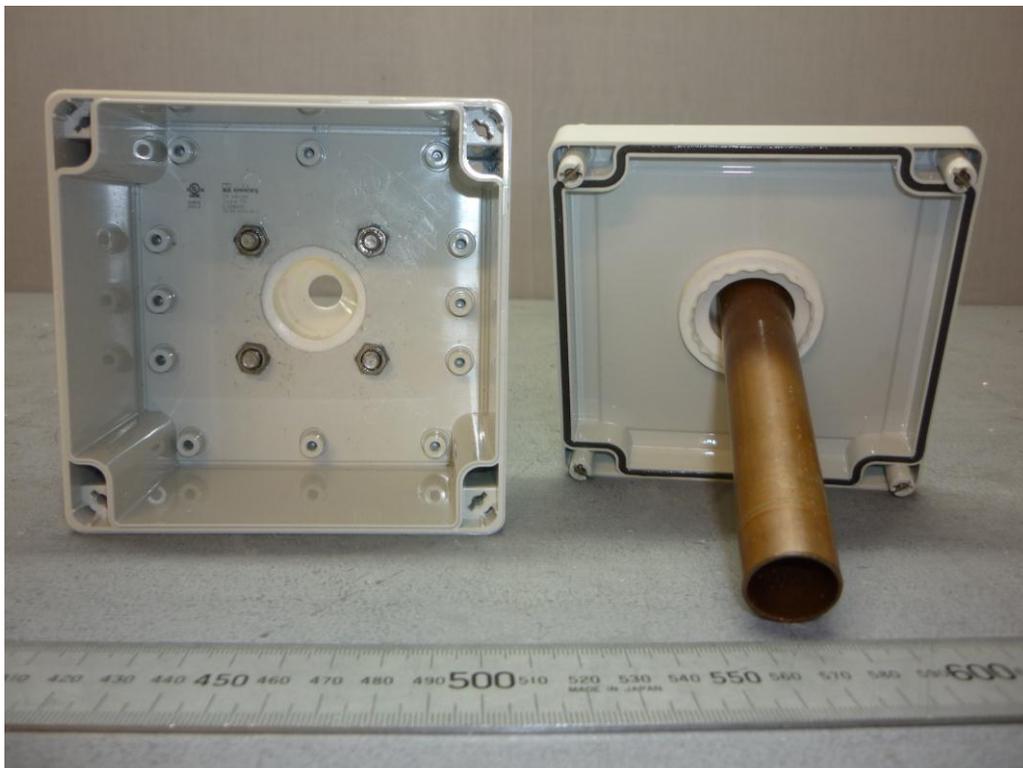
Assembly External View



PHOTOGRAPH ATTACHMENT



Assembly External View



Assembly Internal View