

TEMPORARY IMMERSION AND DUST TEST REPORT

Company : GlacialTech Inc.
 Address : 9Fl., No. 352, Sec. 2, Jung Shan Rd., Jung He City, Taipei 235,
 Taiwan, R.O.C
 Product Name : LED Driver
 Model Name : GP-LS35P-xyzzz; xx can be 30 or 42 or 48; y can be A or B or blank;
 zzz can be any alphanumeric or blank.
 Date Received : JUL 24, 2009
 Date Tested : JUL 24, 2009 ~ JUL 27, 2009

TESTING LABORATORY IS ACCREDITED BY:

IEC/IECQ 17025 certificate of independent test laboratory approval

Certificate No. : T1091

ISO 17025 accredited in respect of laboratory is approved by TAF

Certificate No. : L0835-080922

ISO 9001 certificate is approved by TUV CERT certification body of TUV NORD Cert GmbH

WE HEREBY CERTIFY THAT:

The test(s) shown in the attachment were conducted according to the indicating procedures. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all personnel performing them.

	Name	Signature	Date
Test Engineer	Ethan Chen	<i>Ethan Chen</i>	JUL 28, 2009
Manager	General Lee	<i>General Lee</i>	JUL 29, 2009

NOTE :

1. This report will be invalid if reproduced in part or altered in any way.
2. This report refers only to the specimen(s) submitted to test, and is invalid if used otherwise.
3. This report is ONLY valid with the examination seal and signature of this institute.
4. The tested specimen(s) will only be preserved for thirty days from the date issued, if not collected by the applicant.



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1. GENERAL INFORMATION

1.1 DESCRIPTION OF UNIT

MANUFACTURER : GlacialTech Inc.

PRODUCT NAME : LED Driver

MODEL NAME : GP-LS35P-xyzzz; xx can be 30 or 42 or 48; y can be A or B or blank; zzz can be any alphanumeric or blank.

SAMPLE QUANTITY : 1 unit

1.2 UNIT TESTING SETUP:

See attachment on page 5

1.3 UNIT OPERATING CONDITION:

None

2. TEMPORARY IMMERSION TEST

2.1 TEST EQUIPMENT

Model	Calibration Date
ETL-L180 Water Leakage Test Chamber	NCR

2.2 LABORATORY AMBIENCE CONDITION

Temperature : $23\pm 3^{\circ}\text{C}$

Relative humidity : $55\%\pm 3\%$ (RH)

2.3 REFERENCE DOCUMENT

This test is based on IEC 60529 IPX7.

2.4 TEST CONDITION

Unit is non-operating.

The water temperature is $+25^{\circ}\text{C}$

The lowest point of unit is locating 1000mm below surface of the water.

The duration of test is 30 minutes

2.5 SUMMARY OF TEST

After testing, visual inspection showed no water permeated into unit (the inner unit was dry). No functions check requested from customer.

3. DUST TEST

3.1 TEST EQUIPMENT

Model	Serial Number	Calibration Date
Vötsch- VDT 1000A	59566059640010	NOV 06, 2008

3.2 LABORATORY AMBIENCE CONDITION

Temperature : 23±3°C

Relative humidity : 55%±3% (RH)

3.3 REFERENCE DOCUMENT

The test is based on IEC60529 IP6X Dust Test Protected.

3.4 TEST CONDITION

Unit is non-operating.

Dust material : Talcum powder (100% dry fine)

Particle size	Amount (%)
< 5 µm (Diameter)	42.31%±5
5~10 µm (Diameter)	35.85%±5
10~20 µm (Diameter)	21.15%±5
20~40 µm (Diameter)	0.69%±5
> 40 µm (Diameter)	0%

Amount of talcum powder : 2 kg/m³ (chamber volume)

Dust density : 2.03 g/cm³

Depression level : 10 mbar

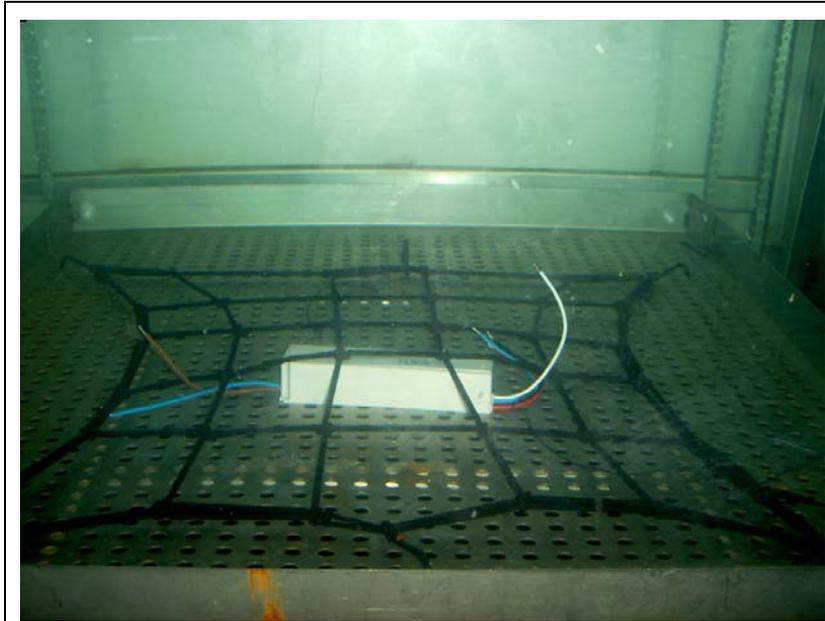
Air direction : Vertically to achieve slowest possible downward settlement

Duration of exposure : 8 hours

3.5 SUMMARY OF TEST

After testing, visual inspection showed no dust particle permeated into unit. No functions check requested from customer.

Attachment 1 : Photo of temporary immersion test setup

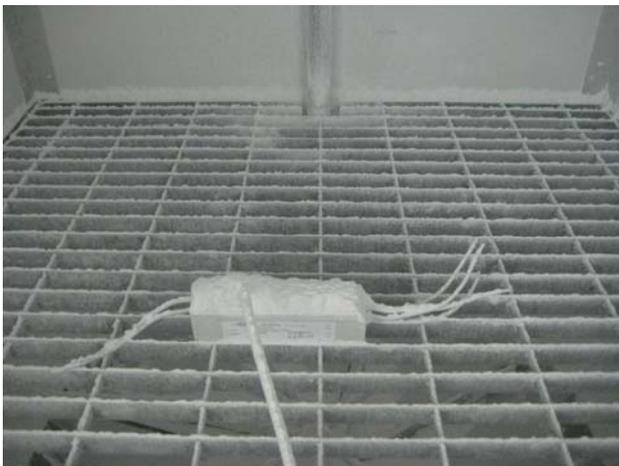


Attachment 2 : Photo of temporary immersion test setup

Before test



After test



Depression level



Attachment 3 : Photo of unit after dust test / temporary immersion test

No dust permeated/ No water permeated

