

No. : SHMR090401161 Date : Apr.14,2009 Page: 1 of 7

ITW ELECTRONIC COMPONENTS/PRODUCTS (SHANGHAI) CO., LTD. BUILDING 5, 789 SHENFU ROAD, XINZHUANG INDUSTRIAL PARK, SHANGHAI, CHINA

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name	:	FORMEX GK-17 BK
Sample No.	:	SHMR090401161
Product specification	:	FORMEX GK-17 BK
Date of Receipt	:	Apr.02,2009
Test Period	:	Apr.02,2009 to Apr.13,2009
Test result(s)	:	For further details, please refer to the following page(s)

\*\*\*\*\*\*\*\* To be continued\*\*\*\*\*\*\*

Signed for SGS-CSTC Standards Technical Services Co.. Ltd

Zhu

Ivy Zhu Lab Technical Supervisor

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 sting Center
 中国・上海・上海浦东康桥东路1159弄69号8号楼
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### 1. Temperature rapid change test #1 (refer to IEC 60068-2-14 Nb: 1986 & as per client's requirement)

#### 1.1 Test conditioning:

- Step 1: Expose sample to room temperature (23 °C/ 50%RH) for 1 hour.
- Step 2: Change time: 1 hour. ( $23^{\circ}C \rightarrow -55^{\circ}C$ )
- Step 3: Expose sample to cold temperature  $(-55^{\circ}C)$  for 24 hours.
- Step 4: Change time: 1 hour. (-55°C→23°C)
- Step 5: Expose sample to room temperature (23  $^\circ\!C/$  50%RH) for 24 hours.

#### 1.2 Test sample:

Sample condition:	Unpacked
Sample No.:	#1 $\sim$ #4 (Group one)
Quantity:	Total 4 pcs

#### 1.3 Requirement:

1.3.1 Visual checks the test sample after test and record any defect.

#### 1.4 Test Result (The test data were provided to the client for their own analysis):

Sample No.	Visual check after test
#1 $\sim$ #4 (Group one)	No signs of cracking, discoloration or bubbling after test.

\*\*\*\*\*\*\*To be continued\*\*\*\*\*\*\*

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### 1.5 Test photos:

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In the chamber

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### 2. Temperature rapid change test #2 (refer to IEC 60068-2-14 Nb: 1986 & as per client's requirement)

#### 2.1 Test conditioning:

- Step 1: Expose sample to room temperature (23 °C/ 50%RH) for 1 hour.
- Step 2: Change time: 1 hour. ( $23^{\circ}C \rightarrow -55^{\circ}C$ )
- Step 3: Expose sample to cold temperature  $(-55^{\circ}C)$  for 48 hours.
- Step 4: Change time: 1 hour. (-55°C→23°C)
- Step 5: Expose sample to room temperature (23  $^\circ\!C/$  50%RH) for 48 hours.

#### 2.2 Test sample:

Sample condition:	Unpacked
Sample No.:	#1~#4 (Group two)
Quantity:	Total 4 pcs

#### 2.3 Requirement:

2.3.1 Visual checks the test sample after test and record any defect.

#### 2.4 Test Result (The test data were provided to the client for their own analysis):

Sample No.	Visual check after test
#1 $\sim$ #4 (Group two)	No signs of cracking, discoloration or bubbling after test.

\*\*\*\*\*\*\*To be continued\*\*\*\*\*\*\*

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#### 2.5 Test photos:

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### 3. High potential test (Refer to IPC-TM-650 2.5.6.1 & per client's requirement)

### 3.1 Test sample:

#1~#4 (Group one), #1~#4 (Group two) Sample No.:

Quantity: Total 8 pcs

#### 3.2 Test result

High potential test (3000VAC/1minute)					
San	nple No.	#1	#2	#3	#4
	Temperature rapid change test #1	Pass	Pass	Pass	Pass
Test result	Temperature rapid change test #2	Pass	Pass	Pass	Pass

Note: 1.Pass = No signs of breakdown, flashover or leakage.

### 3.3 Test photo:



<sup>\*\*\*\*\*\*\*\*</sup>To be continued\*\*\*\*\*\*\*

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### 4. Appendix information:

lest equipment:
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Name	Model	Equipment No.	Due date
High Voltage Insulation Tester	AR3126	POLY-I-088	2009.06.25
Humidity chamber	CH600CES	POLY-I-263	2009.11.03

#### Lab Environmental Conditions:

Ambient temperature:  $15^{\circ}$ C ~  $35^{\circ}$ C

Relative humidity: 25%R.H. ~ 75%R.H.

- The test was carried out by SGS Guangzhou laboratory.

\*\*\*\*\*\*\*\* End of report \*\*\*\*\*\*\*\*

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