CTI 华测检测 CENTRE TESTING INTERNATIONAL

Test Report

Report No.: SCL01H084300001R1

Applicant : GUANGZHOU CHENG YI NEW MATERIALS CO.,LTD

Address : NO.138, SHIYU ROAD, DONGCHONG TOWN, NANSHA DISTRICT, GUANGZHOU CITY

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

Sample Name : Polyurethane resin board

Type : CY5166#

Colour : Milky white

Batch No. : 20150916

Sample Received Date : Sep. 30, 2015

Testing Period : Sep. 30, 2015 to Oct. 12, 2015

Test Requested:

Test Sequence	Test Item
1	Tensile Strength
2	Compressive stress at yield
3	Flexural Strength
4	Shore hardness
5	Density
6	Water Absorption
7	Coefficient of Linear Thermal Expansion（CTE）
8	Heat Distortion Temperature

Test Results: Please see attached sheets.

Tested by Jianqing Wang Reviewed by Daicy

Approved by Alina Date Nov. 3, 2015

Alina
Approved Signatory

No. R199531796

Test Report

Tested Sample:

Sample No.	Sample Name	Type
A84300001	Polyurethane resin board	CY5166#

Sample Photos before the Test:

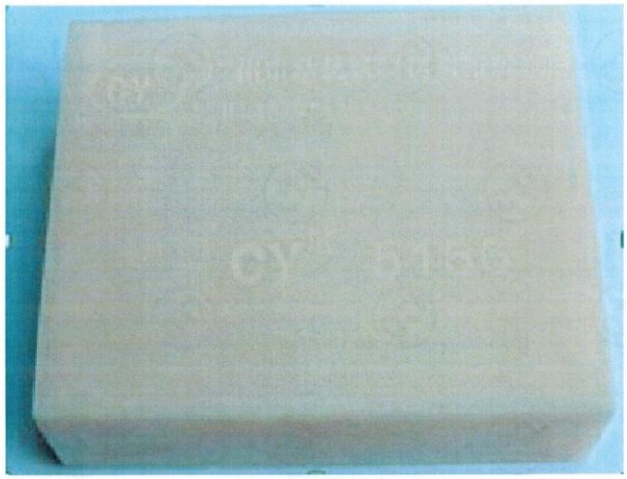

Fig1. Sample A84300001（The sample of product）

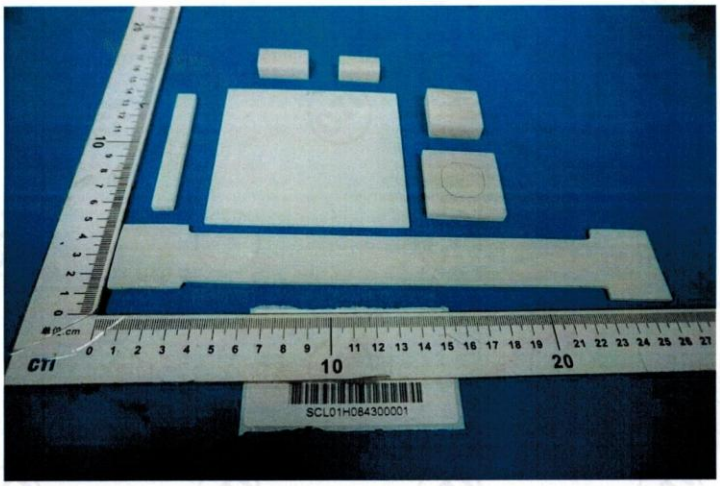

Fig2. Sample A84300001

Test Report

Test Item 1: Tensile Strength

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Microcomputer control testing machine	ETM501B	TTE20120135	Mar. 16, 2016

(2) Environmental Conditions:

Temperature: 22.4℃; Humidity: 53%RH

(3) Reference Standard: ISO 527-2:2012

(4) Tested Condition: Tensile speed: 5mm/min

(5) Test Results:

Test Sample		Test Results（MPa）
A84300001	1	21.2
	2	22.6
	3	21.2
	4	23.2
	5	21.6
	Ave.	22.0
	Specification	20~30
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Report

Test Item 2: Compressive stress at yield

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Microcomputer control testing machine	CMT5105	BTTEIRFA00030	Jun. 15, 2016

(2) Environmental Conditions:

Temperature: 22.8 ℃; Humidity: 54%RH

(3) Reference Standard: ISO 604:2002

(4) Tested Condition: Test speed:15mm/min

(5) Test Results:

Test Sample		Test Results（MPa）
A84300001	1	103
	2	108
	3	108
	4	107
	5	107
	Ave.	107
	Specification	95~110
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Report

Test Item 3: Flexural Strength

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Microcomputer control testing machine	ETM501B	TTE20120135	Mar. 16, 2016

(2) Environmental Conditions:

Temperature: 22.4℃; Humidity: 53%RH

(3) Reference Standard: ISO 178:2010

(4) Tested Condition: Test speed: 2mm/min

(5) Test Results:

Test Sample		Test Results（MPa）
A84300001	1	45.8
	2	45.3
	3	44.9
	4	46.4
	5	44.8
	Ave.	45.4
	Specification	40~50
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Report

Test Item 4: Shore hardness

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Rubber hardness tester	LX-D	BTTEIRFA00021-1	Jun. 17, 2016

(2) Environmental Conditions:

Temperature: 22.2℃; Humidity:52 %RH

(3) Reference Standard: According to customer's requirement and test method refer to DIN 53505-2000

(4) Tested Condition: Use LX-D durometer, make the presser foot fully in contact with the specimen, after 15s, record the reading.

(5) Test Results:

Test Sample		Test Results（Shore D）
A84300001	1	89
	2	90
	3	89
	4	88
	5	89
	Med	89
	Specification	88~90
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Report

Test Item 5: Density

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Electronic Balance	XS205DU	TTE20143049	Dec. 14, 2015

(2) Environmental Conditions:

Temperature:23.0 ℃; Humidity: 52%RH

(3) Reference Standard: ISO 1183-1:2012

(4) Tested Condition: Test specimens were cut down from sample uniform parts, and the density test was done on a balance by displacement.

(5) Test Results:

Test Sample		Test Results（g/cm^3）
A84300001	1	1.692
	2	1.693
	3	1.692
	Ave.	1.692
	Specification	1.68~1.71
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Item 6: Water Absorption

(1) Test Equipment:

Test Equipment	Model	Equipment Number	Valid Date to
High Temperature Test Chamber	PHH201	TTE20120125	Jun. 15, 2016
Electronic Balance	XSE205DU	TTE20143049	Dec. 14, 2015

(2) Environmental Conditions:

Temperature: 23.2℃; Humidity: 53%RH

(3) Reference Standard: ISO 62:2008

(4) Tested condition: drying:24h at 50℃,then put specimens into water of 23℃,,The test of saturated water absorption

(5) Test Results:

Test Sample		Test Results（%）
A84300001	1	0.20
	2	0.22
	3	0.19
	Ave.	0.20
	Specification	0.1~0.5
	Conclusion	Pass

Remark: Specification was supplied by client.

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Test Item 7: Coefficient of Linear Thermal Expansion（CTE）

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
TMA	Q400EM	BTTFIRFA00019	Feb. 10, 2016

(2) Environmental Conditions:

Temperature:22.4℃; Humidity: 53%RH

(3) Reference Standard: ISO 11359-2:1999

(4) Tested Condition: Heat from -10℃ to 80℃ at a rate of 5℃/ min in N_2.

(5) Test Results:

Test Sample	Temperature (℃)	Test Result ($10^{-6}K^{-1}$)
		Cross Flow Direction (width direction)
A84300001	-10~80	31.5

Test Curve:

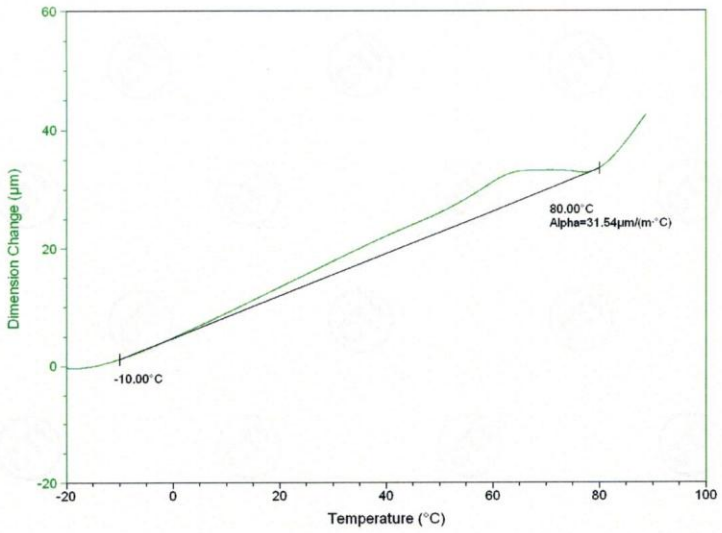

Fig3. The cross flow direction CTE test curve of sample A84300001

Test Report

Test Item 8: Heat Distortion Temperature

(1) Test Equipment:

Equipment Name	Model	Equipment Number	Valid Date to
Microcomputer control HDT & VST tester	HVT302B-1	TTE20110319	Jan. 15, 2016

(2) Environmental Conditions:

Temperature: 22.4℃; Humidity: 53%RH

(3) Reference Standard: ISO 75-1:2013

ISO 75-2:2013

(4) Tested Condition: Bending stress:1.80MPa, heating rate: 120℃/h

(5) Test Results:

Test Sample		Test Results(℃)
A84300001	1	68
	2	68
	3	69
	Ave.	68
	Specification	65~75
	Conclusion	Pass

Remark: Specification was supplied by client.

Remark: This testing report displaces the original report of No. SCL01H084300001, and the original one No. SCL01H084300001 was invalid since the date of this testing report released.

*** End of Report ***