CTI 华测检测 CENTRE TESTING INTERNATIONAL

Test Report

Report No.: SCL01H08930301

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 : CY460#

Colour : Red brown

Batch No. : 20150916

Sample Received Date : Oct. 20, 2015

Testing Period : Oct. 20, 2015 to Oct. 26, 2015

Test Requested:

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

Test Results: Please see attached sheets.

Tested by Jianqiang Wang Reviewed by Darcy

Approved by Alina Date Nov. 3, 2015

Alina
Approved Signatory

CENTRE TESTING INTERNATIONAL GROUP CO.,LTD CTI Report Seal

No. R199532268

Test Report

Test Item 9: 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(℃)
A84300002	1	55
	2	55
	3	56
	Ave.	55
	Specification	50~60
	Conclusion	Pass

Remark: Specification was supplied by client.

Remark: The test results of sample A89303001 are presented in reference to the results that reported in SCL01H089303R1.
The test results of sample A84300002 are presented in reference to the results that reported in SCL01H084300002R1.

*** End of Report ***

Test Report

Test Curve:

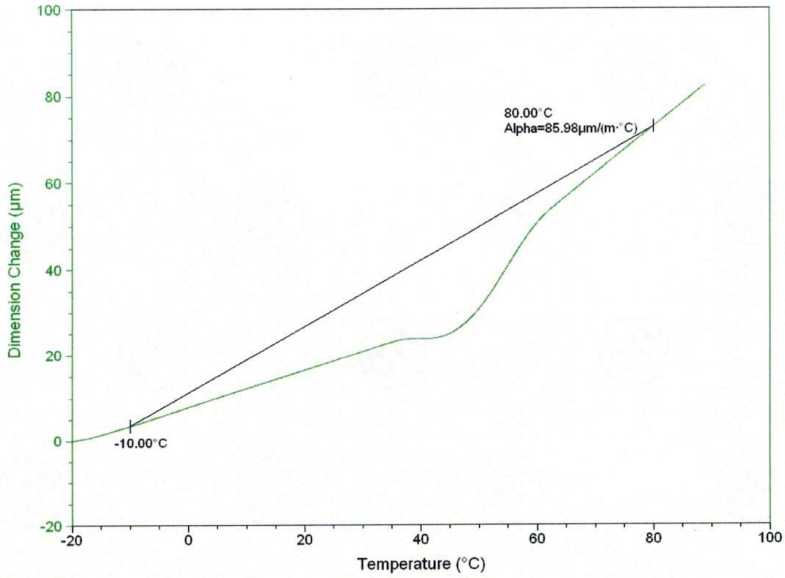

Fig4. The cross flow direction CTE test curve of sample A84300002

Test Report

Test Item 8: 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)
A84300002	-10~80	86.0

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Test Item 7: 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（%）
A84300002	1	1.45
	2	1.41
	3	1.59
	Ave.	1.48
	Specification	1~2
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Item 5: 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）
A84300002	1	71
	2	72
	3	72
	4	72
	5	71
	Med	72
	Specification	69~74
	Conclusion	Pass

Remark: Specification was supplied by client.

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Test Item 4: 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）
A84300002	1	29.1
	2	30.2
	3	31.0
	4	29.8
	5	29.0
	Ave.	29.8
	Specification	25~35
	Conclusion	Pass

Remark: Specification was supplied by client.

Test Item 3: 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）
A84300002	1	45.0
	2	48.4
	3	45.1
	4	48.6
	5	47.2
	Ave.	46.9
	Specification	40~60
	Conclusion	Pass

Remark: Specification was supplied by client.

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Test Item 2: 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）
A84300002	1	20.8
	2	21.4
	3	21.5
	4	19.9
	5	21.8
	Ave.	21.1
	Specification	20~30
	Conclusion	Pass

Remark: Specification was supply by client.

Test Report

Test Item 1: Density

(1) Test Equipment:

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

(2) Environmental Conditions:

Temperature: 23.6℃; Humidity: 54%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）
A89303001	1	0.702
	2	0.703
	3	0.702
	Ave.	0.702
	Specification	0.68~0.71
	Conclusion	Pass

Remark: Specification was supplied by client.

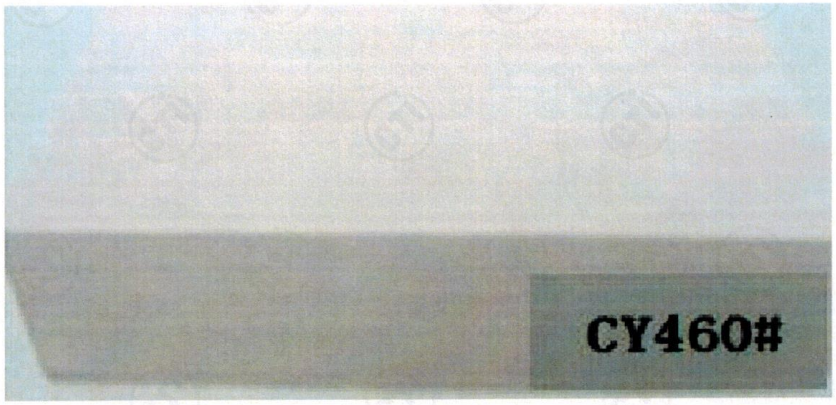

Fig2. Sample A84300002（The sample of product）

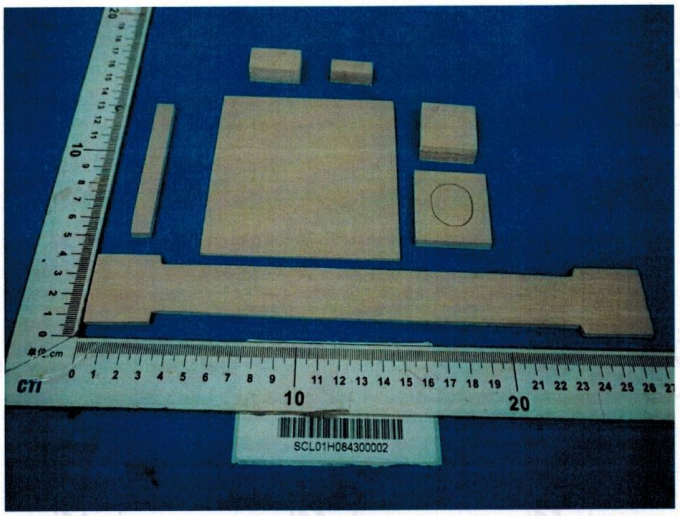

Fig3. Sample A84300002

Test Report

Tested Sample:

Sample No.	Sample Name	Type
A89303001	Polyurethane resin board	CY460#
A84300002	Polyurethane resin plate	CY460#

Sample Photos before the Test:

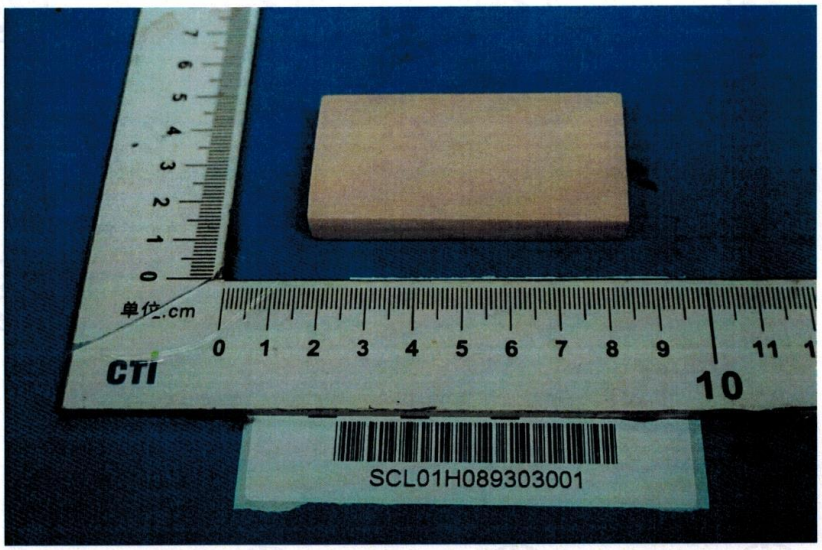

Fig1. Sample A89303001