

## Test Report

No.: GZHG13070249700T

Date: Jul 30, 2013

Page 1 of 6

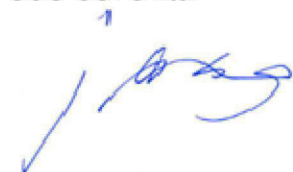
GuangZhou Ning E-plastics Co.Ltd

Add.:Rm.136,Lin he zhong Rd.TianHe,GZ,China

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

Sample Description : PE  
Test Performed : Selected test(s) as requested by applicant  
Sample Receiving Date : Jul 15, 2013  
Test Performing Date : Jul 15, 2013 to Jul 29, 2013  
Test Result(s) : For further details, please refer to the following page(s)

Signed for and on behalf of  
SGS-CSTC Ltd.



Jason Cheung  
Approved Signatory

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SGS-CSTC Standards Technical Services Co., Ltd.  
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# Test Report

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I . SGS Ref No.: CAN13-110067

Test Requested	Result
To determine Content(s) of Cadmium(Cd), Lead(Pb), Mercury(Hg), Hexavalent Chromium(CrVI), PBBs & PBDEs in the selected parts on the submitted sample(s) with reference to RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.	PASS

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	CAN13-110067.001	White plastic board

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

## RoHS Directive 2011/65/EU

Test Method : With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
- (5) Determination of PBBs / PBDEs content by GC-MS.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1000	mg/kg	2	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND

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Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

### Notes :

- (1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II

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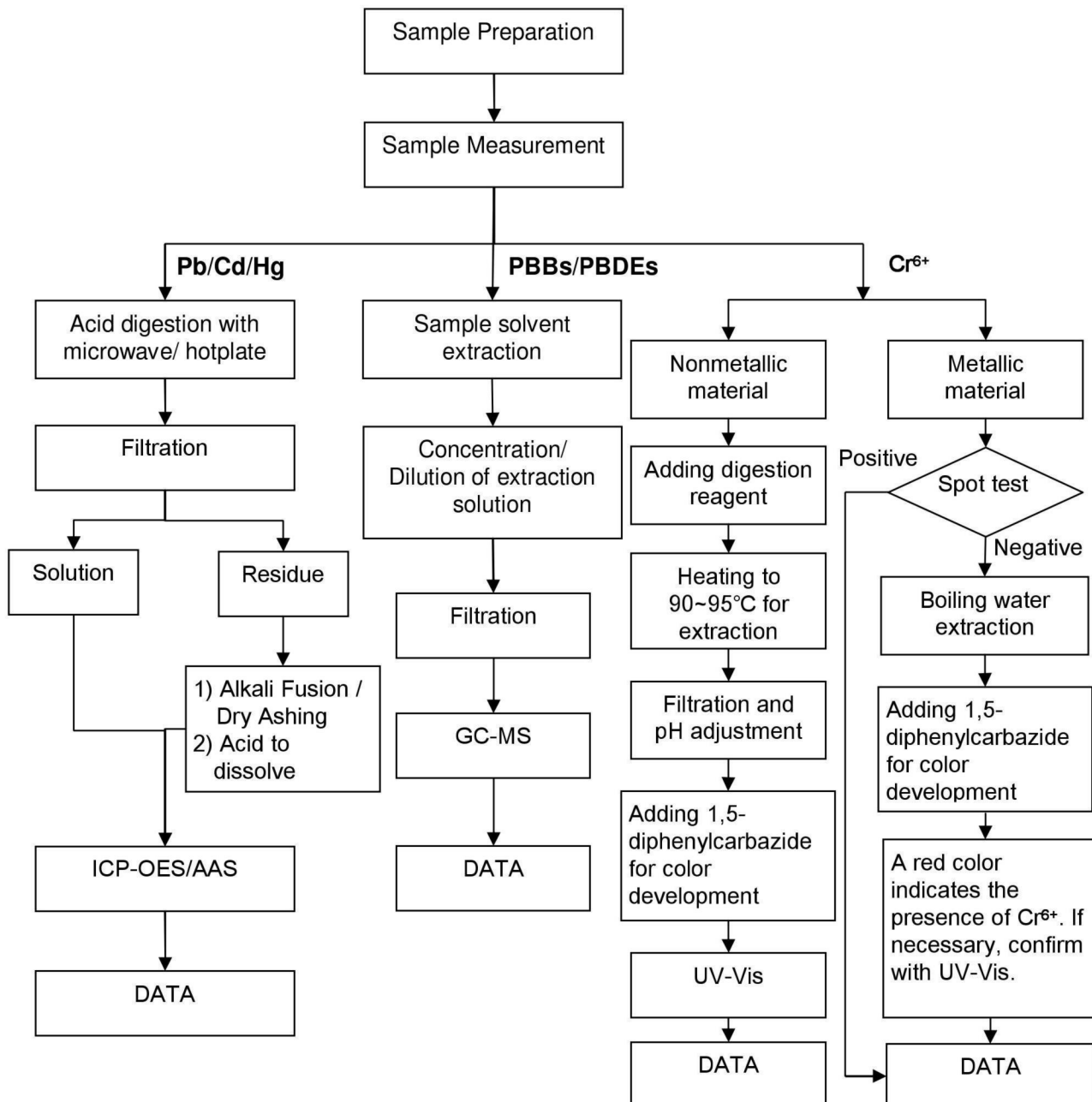
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### ATTACHMENTS

#### RoHS Testing Flow Chart

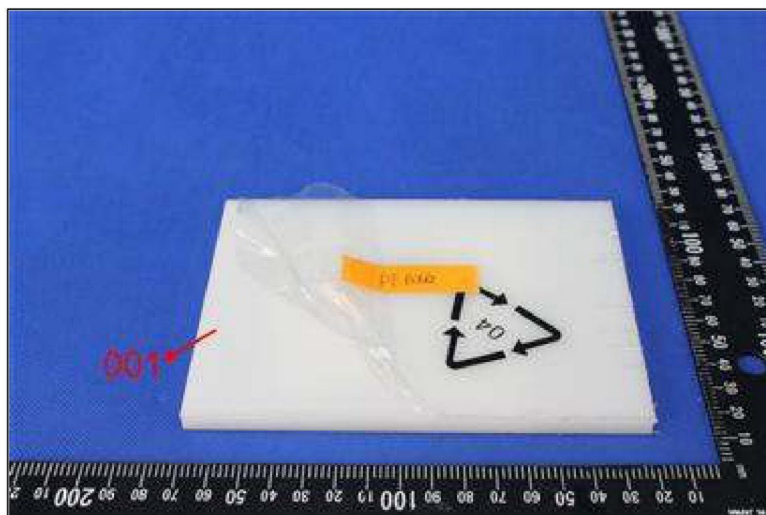
- 1) Name of the person who made testing: Michael Tso / Cutey Yu
- 2) Name of the person in charge of testing: Adams Yu / Yolanda Wei
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr6+ and PBBs/PBDEs test method excluded)



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Sample photo:



## II. SGS Ref No.: GZMR130711722

### Test Information:

Sample description: Bar

Lab environment condition:  $23 \pm 2^\circ\text{C}$ ,  $50 \pm 5\%\text{RH}$

No.	Test item	Test method	Test condition	Test result
1	Tensile strength	ASTM D638-10	Dumbbell specimen middle width: 10.04mm Dumbbell specimen middle thickness: 4.14mm Testing speed: 50mm/min Gauge length: 50mm	27.0MPa
2	Elongation at break			172%
3	Flexural strength	ASTM D790-10 Procedure A	Specimen: 127×12.70×3.16mm Testing speed: 1.3mm/min Span: 51mm	29.7MPa (see note 1)
4	Flexural modulus			1290MPa
5	Charpy notched impact strength	ASTM D6110-10	Specimen width: 3.16mm (Notch preparation: machining) The capacity of pendulum: 7.5J Impact speed: 3.46m/s Span: 101.6mm	(see note 2)

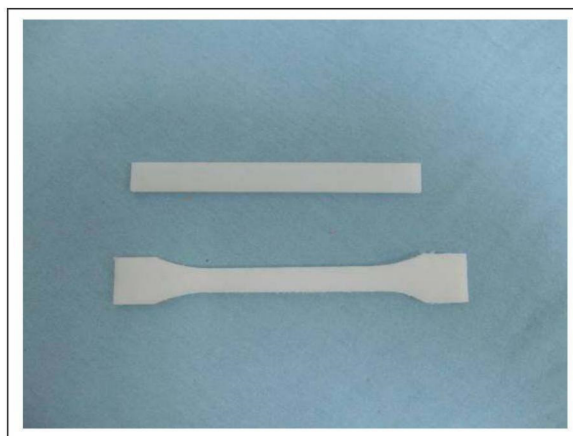
Note: 1. Flexural strength was the maximum strength obtained over the 5% strain limit.

2. Impact strength is not to be reported for other than complete break according to ASTM D6110-10. The breaking type of the test specimens was partial break.

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Photo:



\*\*\*End of Report\*\*\*

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