

## Test Report

No. SH9182025/CHEM

Date: Sep. 19, 2009

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PEAK PLASTIC & METAL PRODUCTS (INTERNATIONAL) LTD  
HENG GANG 188 INDUSTRIAL ESTATE, LONG GANG DISTRICT SHEN ZHEN

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

Sample Name : MPPO TRAY  
SGS Ref No. : SZ12163486

Sample Receiving Date : Sep.16, 2009  
Testing Period : Sep.16– 19, 2009

Test Requested : (1) In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.  
(2) To determine the PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) content of the submitted sample.  
(3) With reference to IEC 61249-2-21, to determine the Halogen- Chlorine, Bromine Content in the submitted sample.  
(4) To identify the presence of PVC (CAS No:9002-86-2) of the submitted sample.

Test Method : (1-1) With reference to IEC 62321:2008 for Cadmium content.  
Analysis was performed by ICP-OES.  
(1-2) With reference to IEC 62321:2008 for Lead content.  
Analysis was performed by ICP-OES.  
(1-3) With reference to IEC 62321:2008 for Mercury content.  
Analysis was performed by ICP-OES.  
(1-4) With reference to IEC 62321:2008 for Hexavalent Chromium by Colorimetric Method.  
(1-5) With reference to IEC 62321:2008 for PBBs / PBDEs content.  
Analysis was performed by GC/MS.  
(2) With reference to EPA 3550C: 2007.  
Analysis was performed by High Performance Liquid Chromatograph-Mass Spectrometer (HPLC-MS).  
(3) With reference to EN 14582: 2007.  
(3-1) Determination of Chlorine by Ion Chromatograph (IC) method.  
(3-2) Determination of Bromine by Ion Chromatograph (IC) method.  
(4) In-house method.  
Analysis was performed by FTIR/HATR.

Test Results : Please refer to next pages

Conclusion : (3)When tested as specified, the Chlorine and Bromine content of submitted sample complies with the requirements of IEC 61249-2-21.

Signed for and on behalf of  
SGS-CSTC Chemical Laboratory

*Sandy Hao*

Sandy Hao  
Lab Manager

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Test results by chemical method

(1) Cadmium, Lead, Mercury, Hexavalent Chromium, PBBs / PBDEs Content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	MDL	RoHS Limit
Cadmium(Cd)	(1-1)	ND	2	100
Lead (Pb)	(1-2)	ND	2	1000
Mercury (Hg)	(1-3)	ND	2	1000
Hexavalent Chromium (CrVI)	(1-4)	ND	2	1000
Sum of PBBs	(1-5)	ND	-	1000
Monobromobiphenyl		ND	5	-
Dibromobiphenyl		ND	5	-
Tribromobiphenyl		ND	5	-
Tetrabromobiphenyl		ND	5	-
Pentabromobiphenyl		ND	5	-
Hexabromobiphenyl		ND	5	-
Heptabromobiphenyl		ND	5	-
Octabromobiphenyl		ND	5	-
Nonabromobiphenyl		ND	5	-
Decabromobiphenyl		ND	5	-
Sum of PBDEs		ND	-	1000
Monobromodiphenyl ether		ND	5	-
Dibromodiphenyl ether		ND	5	-
Tribromodiphenyl ether		ND	5	-
Tetrabromodiphenyl ether		ND	5	-
Pentabromodiphenyl ether		ND	5	-
Hexabromodiphenyl ether		ND	5	-
Heptabromodiphenyl ether		ND	5	-
Octabromodiphenyl ether		ND	5	-
Nonabromodiphenyl ether	ND	5	-	
Decabromodiphenyl ether##	ND	5	-	

(2) PFOS (Perfluorooctane Sulfonates) and PFOA (Perfluorooctanoic Acid) Content (Unit: mg/kg)

Test Items	Test method (refer to)	1	MDL
Perfluorooctane Sulfonates (PFOS)	(2)	ND	10
PFOS – Acid			
PFOS – Metal Salt			
PFOS – Amide			
Perfluorooctyl Acid (PFOA)		ND	10

PFOS Reference Information: Directive 2006/122/EC

- (i) May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.
- (ii) May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to

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the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than  $1\mu\text{g}/\text{m}^2$  of the coated material.

### (3) Halogen- Chlorine, Bromine Content (Unit: mg/kg)

Test Item(s):	Method (refer to)	1	MDL	Limit of IEC 61249-2-21
Chlorine(Cl)	(3-1)	ND	50	900
Bromine(Br)	(3-2)	ND	50	900

### (4) PVC (Unit: \*\*)

Test Item(s):	Method (refer to)	1
PVC (CAS No:9002-86-2)	(4)	Negative

Note : (1) \*\*= Qualitative analysis (No Unit)  
(2) Negative = Undetectable , Positive = Detectable.

### Test Part Description:

1. Black solid board

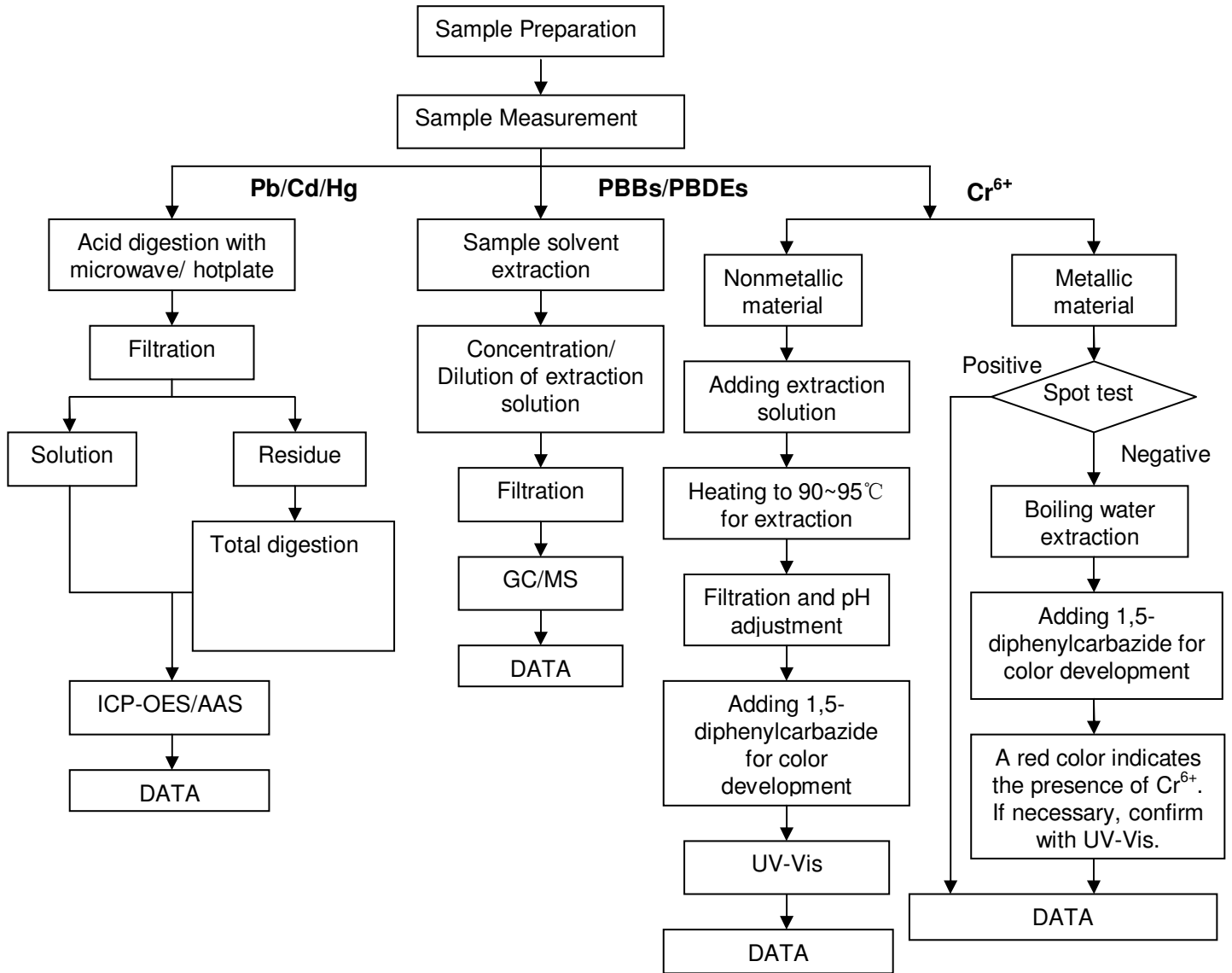
### Note:

- (1) mg/kg = ppm
- (2) ND = Not Detected
- (3) MDL = Method Detection Limit
- (4) ##=The exemption of DecaBDE in polymeric application according 2005/717/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE is included in the sum of PBDE after 01.07.2008.
- (5) “-” = Not Regulated
- (6) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC

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**ATTACHMENTS**

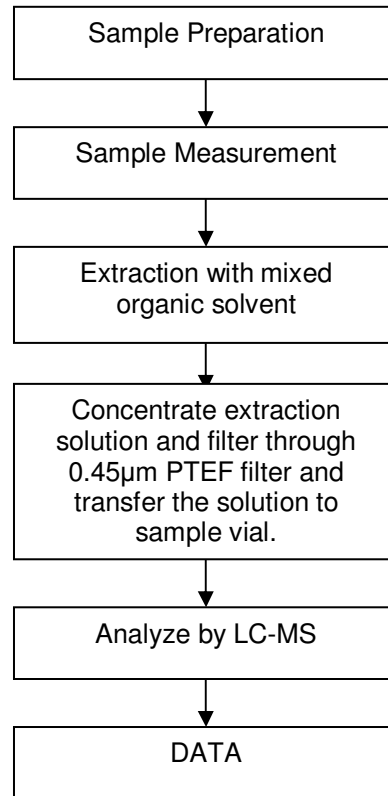
- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> and PBBs/PBDEs test method excluded)



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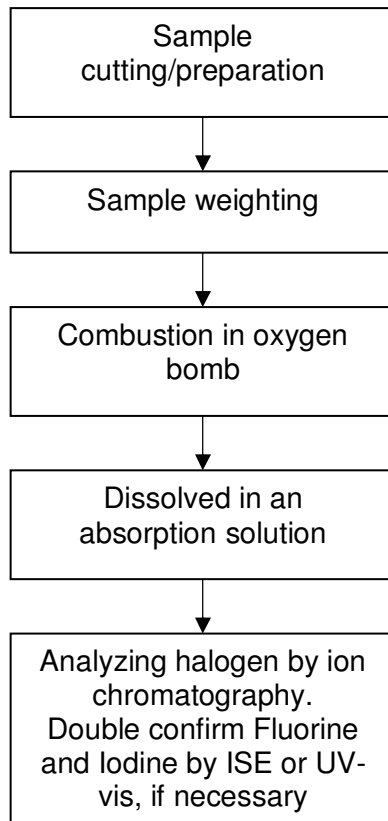
PFOS/PFOA Measurement Flowchart for sample



Tested by : Judy Li  
 Checked by : Jenny Liu

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Halogen Measurement Flowchart for sample

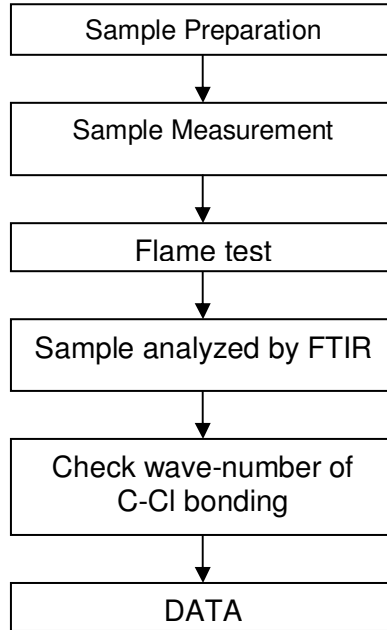


Tested by : Daisy Gong  
 Checked by : Alex Jiang

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PVC Measurement Flowchart for sample



Tested by : Carol Lin  
 Checked by : Alex Jiang

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Sample photo:



SGS authenticate the photo on original report only

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

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