

## Test Report

Number: GZHH00340526

Applicant: GUANGZHOU PLATO PLASTIC CO., LTD  
DAYUAN VILLAGE HENGLI TOWN  
NANSHA DISTRICT GUANGZHOU CITY  
GUANGDONG CHINA

Date: Oct 11, 2019

### Sample Description:

One (1) submitted sample said to be **PVC Sheet**  
Country of Origin : China



### Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

### Conclusion:

Tested sample  
Tested component(s) of  
submitted sample

Standard  
Restriction of the use of certain hazardous substance in  
electrical and electronic equipment (RoHS Directive 2011/65/EU  
and amendment Commission Delegated Directive (EU)  
2015/863 with effective from 22 July 2019)

Result  
Pass

Authorized by:  
For Intertek Testing Services Shenzhen Ltd.  
Guangzhou Branch, Hardlines

Ben N.L. Lin  
General Manager



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### Tests Conducted

1 RoHS Chemical Test

(A) Test Result Summary:

<u>Test item</u>	<u>Result</u>
	(1)
Cadmium (Cd) Content (mg/kg)	ND
Lead (Pb) Content (mg/kg)	ND
Mercury (Hg) Content (mg/kg)	ND
Chromium (VI)(Cr <sup>6+</sup> ) Content (mg/kg)	ND
Polybrominated Biphenyls (PBBs)(mg/kg)	
Monobromobiphenyl (MonoBB)	ND
Dibromobiphenyl (DiBB)	ND
Tribromobiphenyl (TriBB)	ND
Tetrabromobiphenyl (TetraBB)	ND
Pentabromobiphenyl (PentaBB)	ND
Hexabromobiphenyl (HexaBB)	ND
Heptabromobiphenyl (HeptaBB)	ND
Octabromobiphenyl (OctaBB)	ND
Nonabromobiphenyl (NonaBB)	ND
Decabromobiphenyl (DecaBB)	ND
Polybrominated Diphenyl Ethers (PBDEs)(mg/kg)	
Monobromodiphenyl Ether (MonoBDE)	ND
Dibromodiphenyl Ether (DiBDE)	ND
Tribromodiphenyl Ether (TriBDE)	ND
Tetrabromodiphenyl Ether (TetraBDE)	ND
Pentabromodiphenyl Ether (PentaBDE)	ND
Hexabromodiphenyl Ether (HexaBDE)	ND
Heptabromodiphenyl Ether (HeptaBDE)	ND
Octabromodiphenyl Ether (OctaBDE)	ND
Nonabromodiphenyl Ether (NonaBDE)	ND
Decabromodiphenyl Ether (DecaBDE)	ND

Non-toys:

<u>Test item</u>	<u>Result</u>
	(1)
Dibutyl phthalate (DBP) (mg/kg)	ND
Di-(2-ethyl hexyl) phthalate (DEHP) (mg/kg)	ND
Benzyl butyl phthalate (BBP) (mg/kg)	ND
Di-(iso-butyl) phthalate (DIBP) (mg/kg)	ND

ND = Not detected

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Tested Component: (1) Transparent PVC plastic sheet.

(B) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr <sup>6+</sup> )	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Dibutyl phthalate (DBP)	0.1% (1000 mg/kg)
Di-(2-ethyl hexyl) phthalate (DEHP)	0.1% (1000 mg/kg)
Benzyl butyl phthalate (BBP)	0.1% (1000 mg/kg)
Di-(iso-butyl) phthalate (DIBP)	0.1% (1000 mg/kg)

The above limits were quoted from Directive 2011/65/EU and amendment Commission Delegated Directive (EU) 2015/863 for homogeneous material.

(C) Test Method:

Testing Item	Testing Method	Reporting Limit
Mercury (Hg) Content	With reference to IEC 62321-4 Edition 1.0:2013+AMD1: 2017, by acid digestion and determined by ICP - OES	2 mg/kg
Cadmium (Cd) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion and determined by ICP - OES	2 mg/kg
Lead (Pb) Content	With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion and determined by ICP - OES	2 mg/kg
Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Chromium (VI)(Cr <sup>6+</sup> ) Content	With reference to IEC 62321-7-2 Edition 1.0:2017, Hexavalent chromium – Determination of hexavalent chromium (Cr(VI) in polymers and electronics by the colorimetric method	10 mg/kg
Dibutyl phthalate (DBP) & Di-(2-ethyl hexyl) phthalate (DEHP) & Benzyl butyl phthalate (BBP) & Di-(iso-butyl) phthalate (DIBP)	With reference to IEC 62321-8 Edition 1.0:2017, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis	100mg/kg

Date sample received: Sep 25, 2019

Testing period: Sep 25, 2019 to Oct 08, 2019

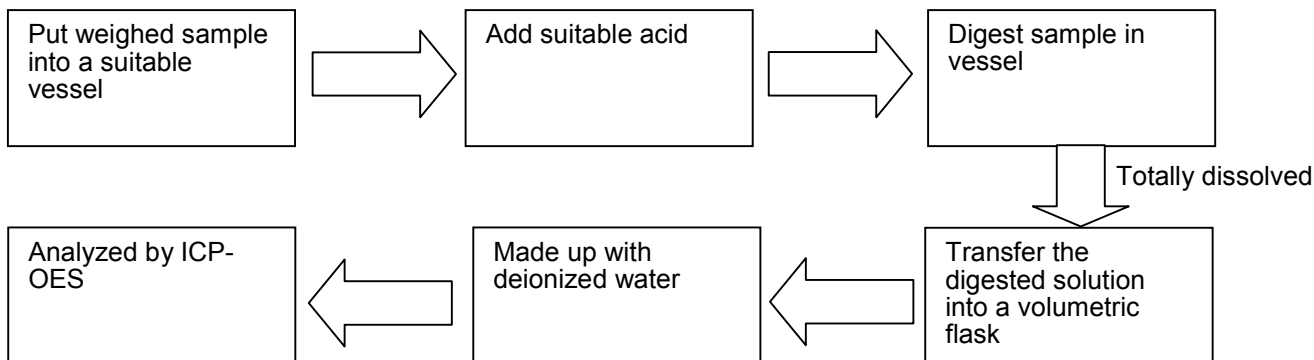
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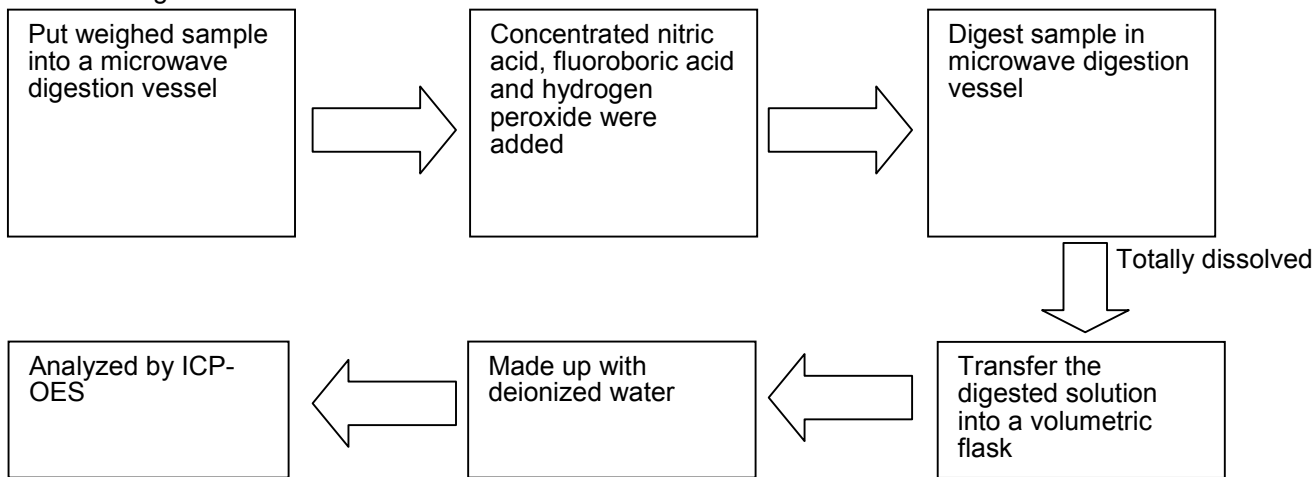
Tests Conducted

(D) Measurement Flowchart:

1. Test for Cd/Pb Contents



2. Test for Hg Content



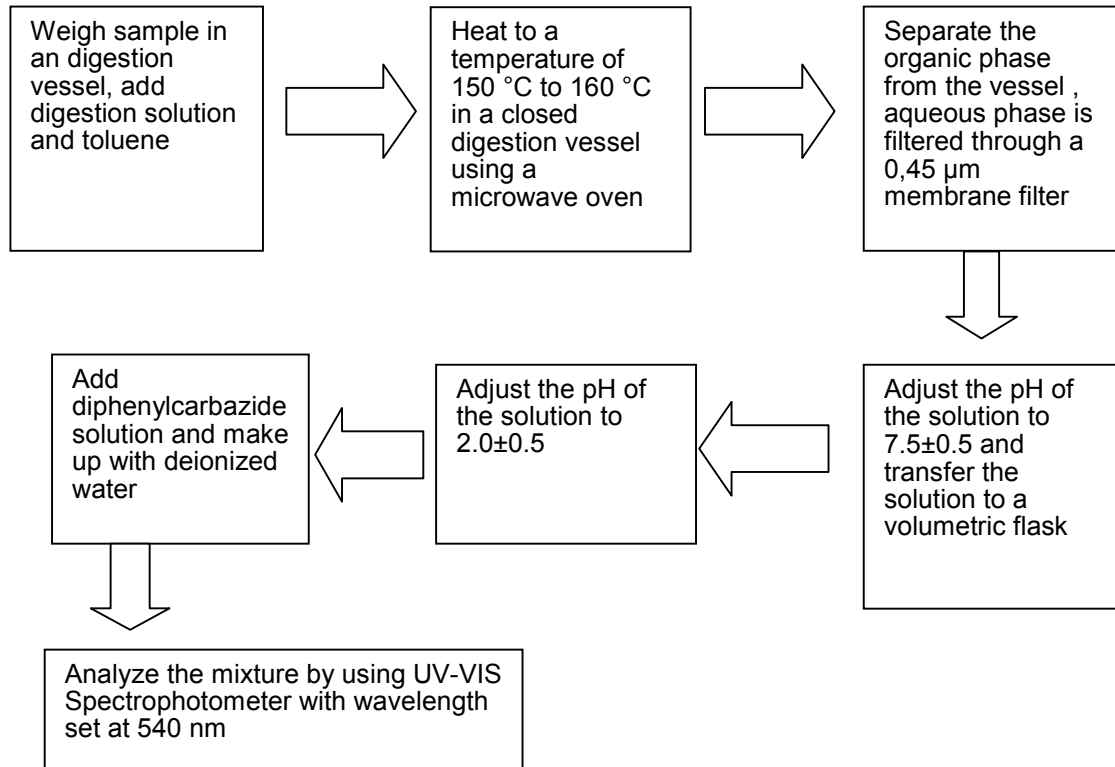
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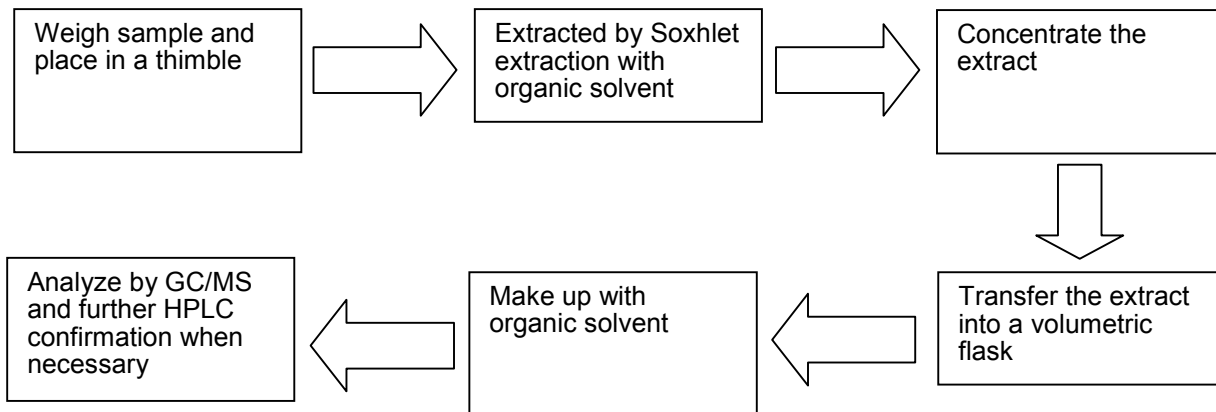
Tests Conducted

3. Test for Chromium (VI) ( $Cr^{6+}$ ) Content (Alkaline Digestion)

Insoluble/unknown polymers and electronics without Sb



4. Test for PBBs/PBDEs Contents

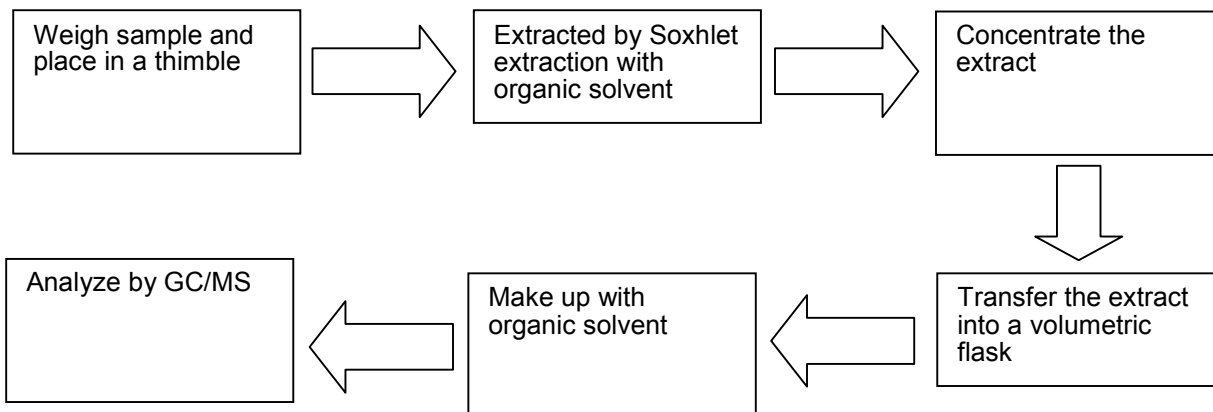


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Tests Conducted

5. Test for Phthalate Contents



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End of report

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