

Chemical Laboratory - Kao., SGS Taiwan Ltd.

## Test Report

No. : KE/2018/12653

Date : 2018/02/05

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FORMOSA PLASTICS CORPORATION  
NO. 1, SHIHUUA 1ST RD., LINYUAN DISTRICT, KAOHSIUNG CITY 832, TAIWAN (R.O.C.)

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

Sample Description : POLYPROPYLENE RANDOM COPOLYMER  
Style/Item No. : 5003,5018,5018T,5020,5030,5050,5050M,5050R,5050S,  
5060,5060T,5070,5071,5090T,5090R,5200U,5200XT,5250T,  
5350T,5450XT.  
Material Component : POLYPROPYLENE RANDOM COPOLYMER  
Color : CLEAR  
Sample Receiving Date : 2018/01/30  
Testing Period : 2018/01/30 TO 2018/02/05  
Sample Submitted By : FORMOSA PLASTICS CORPORATION

=====  
**Test Requested** : As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).

**Test Method** : Please refer to following pages.

**Test Result(s)** : Please refer to following pages.

  
  
**Ray Chang Ph.D. | Manager - Tech**  
**Signed for and on behalf of**  
**SGS Taiwan Limited**

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## Test Result(s)

PART NAME No.1 : CLEAR POLYPROPYLENE RANDOM COPOLYMER

Test Item(s)	Unit	Method	MDL	Result	
				No.1	
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	
Lead (Pb)	mg/kg	With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n.d.	
Mercury (Hg)	mg/kg	With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n.d.	
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321-7-2:2017 and performed by UV-VIS.	8	n.d.	
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.	
Monobromobiphenyl	mg/kg		5	n.d.	
Dibromobiphenyl	mg/kg		5	n.d.	
Tribromobiphenyl	mg/kg		5	n.d.	
Tetrabromobiphenyl	mg/kg		5	n.d.	
Pentabromobiphenyl	mg/kg		5	n.d.	
Hexabromobiphenyl	mg/kg		5	n.d.	
Heptabromobiphenyl	mg/kg		5	n.d.	
Octabromobiphenyl	mg/kg		5	n.d.	
Nonabromobiphenyl	mg/kg		5	n.d.	
Decabromobiphenyl	mg/kg		5	n.d.	
<b>Sum of PBDEs</b>	mg/kg		With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.
Monobromodiphenyl ether	mg/kg			5	n.d.
Dibromodiphenyl ether	mg/kg	5		n.d.	
Tribromodiphenyl ether	mg/kg	5		n.d.	
Tetrabromodiphenyl ether	mg/kg	5		n.d.	
Pentabromodiphenyl ether	mg/kg	5		n.d.	
Hexabromodiphenyl ether	mg/kg	5		n.d.	
Heptabromodiphenyl ether	mg/kg	5		n.d.	
Octabromodiphenyl ether	mg/kg	5		n.d.	
Nonabromodiphenyl ether	mg/kg	5		n.d.	
Decabromodiphenyl ether	mg/kg	5	n.d.		

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Test Item(s)	Unit	Method	MDL	Result
				No.1
DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg	With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.
BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg	With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg	With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.

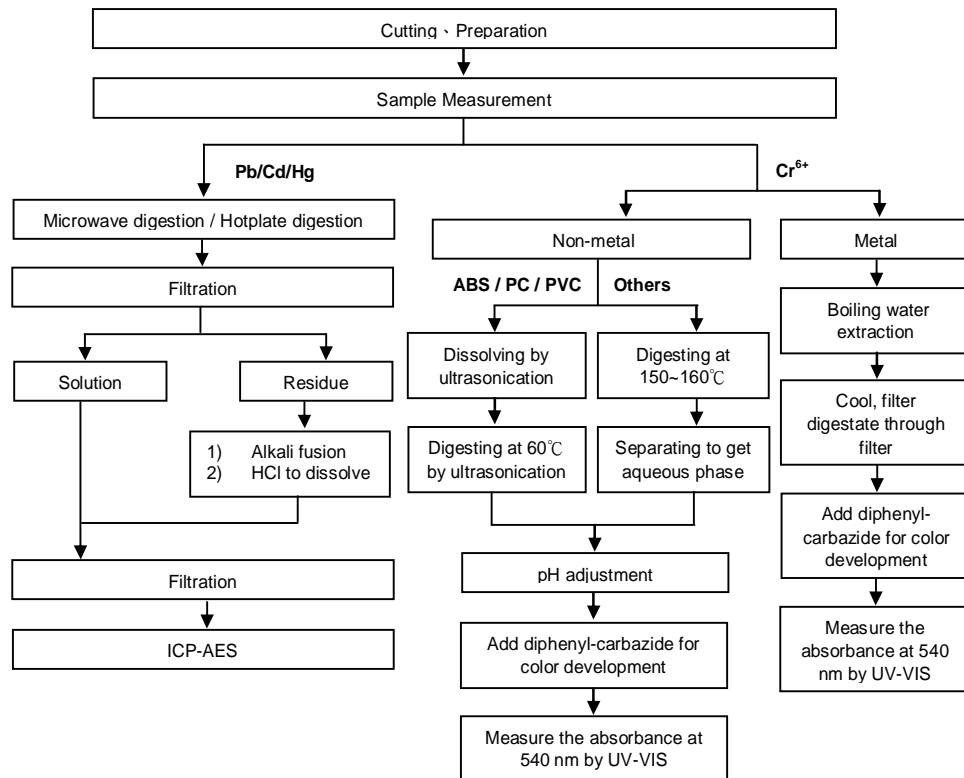
**Note :**

1. mg/kg = ppm : 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated

### Analytical flow chart of Heavy Metal

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)

- Technician : Jony Liu
- Supervisor: Ray Chang

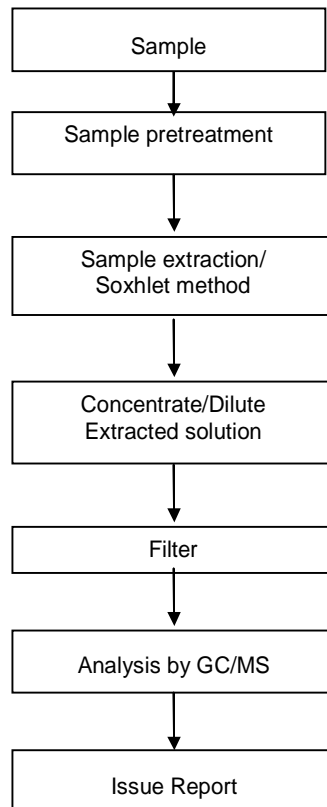


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### PBB/PBDE analytical FLOW CHART

1) Name of the person who made measurement: Dorothy Chen

2) Name of the person in charge of measurement: Ray Chang



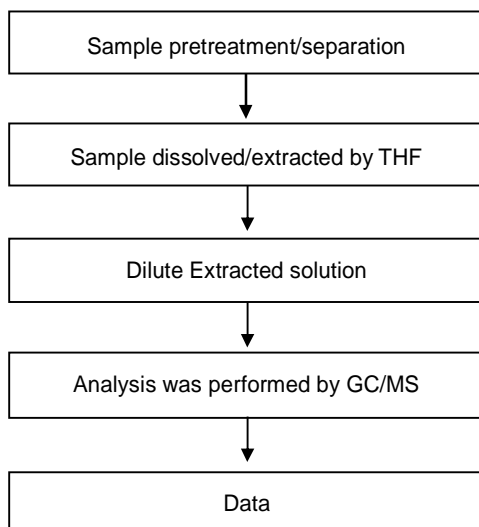
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### Analytical flow chart of phthalate content

- Name of the person who made measurement: Dorothy Chen
- Name of the person in charge of measurement: Ray Chang

**【Test method: IEC 62321-8】**



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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

# KE/2018/12653



\*\* End of Report \*\*

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