



Chemical Laboratory - Kao., SGS Taiwan Ltd.

Test Report

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ROGERS CORPORATION
171 WEST SAINT CHARLES ROAD, CAROL STREAM, ILLINOIS 60188 USA

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

Sample Description	:	SILICONE BASE MATERIAL
Style/Item No.	:	HT-200 NO FIBERGLASS 0.025"
Color	:	BLACK
Material Component	:	SILICONE FOAM
Country of Origin	:	USA
Country of Destination	:	TAIWAN
Lot No.	:	17C06346001
Sample Receiving Date	:	2017/12/05
Testing Period	:	2017/12/05 TO 2017/12/11
Sample Submitted By	:	ROGERS CORPORATION

Test Result(s) : Please refer to next page(s).

Ray Chang

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

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Test Result(s)

PART NAME NO.1 : BLACK FOAM

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.	
Sum of PBBs	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.	
Sum of PBDEs	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.
Halogen				
Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	With reference to BS EN 14582:2016. Analysis was performed by IC.	50	n.d.
Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)	mg/kg	With reference to BS EN 14582:2016. Analysis was performed by IC.	50	n.d.
Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg	With reference to BS EN 14582:2016. Analysis was performed by IC.	50	n.d.
Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg	With reference to BS EN 14582:2016. Analysis was performed by IC.	50	n.d.

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

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Test Report

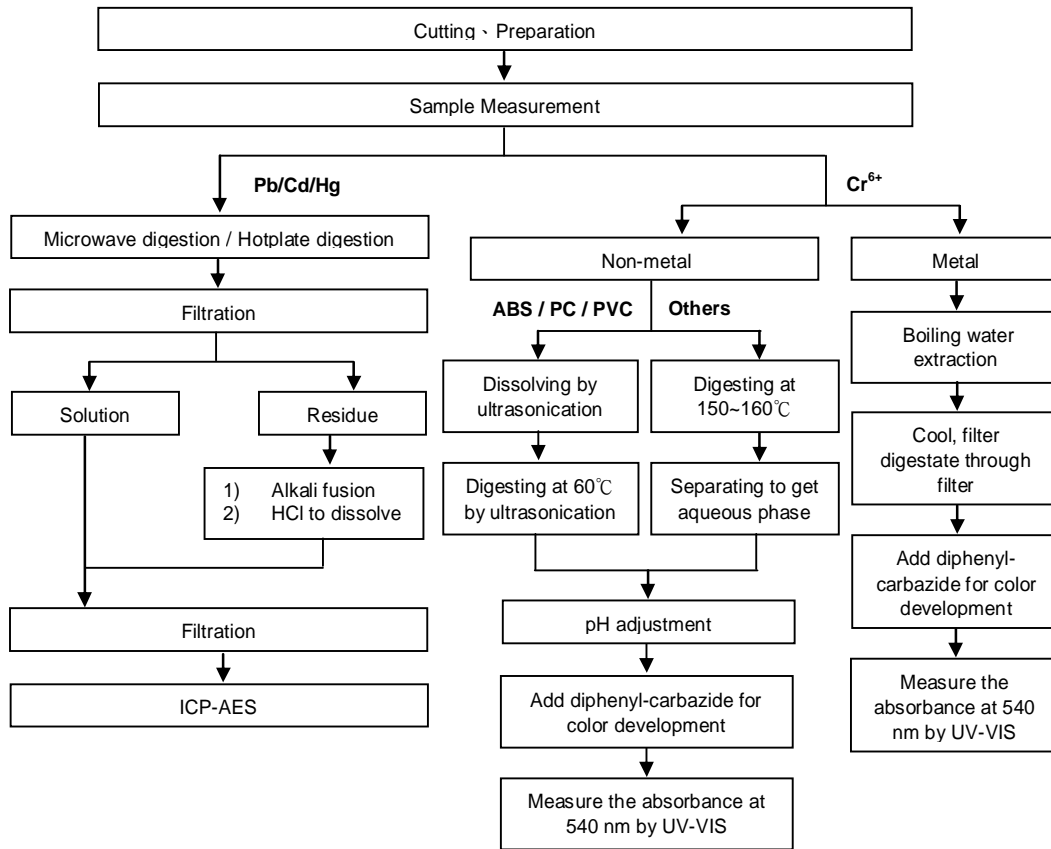
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ROGERS CORPORATION
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Analytical flow chart of Heavy Metal

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)

- Technician : Jony Liu
- Supervisor: Ray Chang



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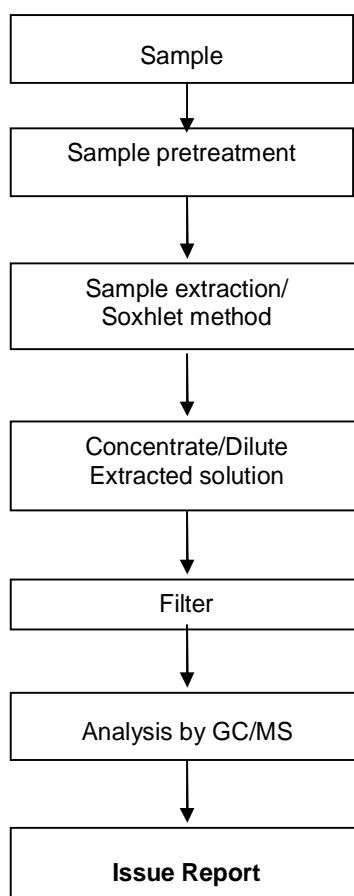
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ROGERS CORPORATION

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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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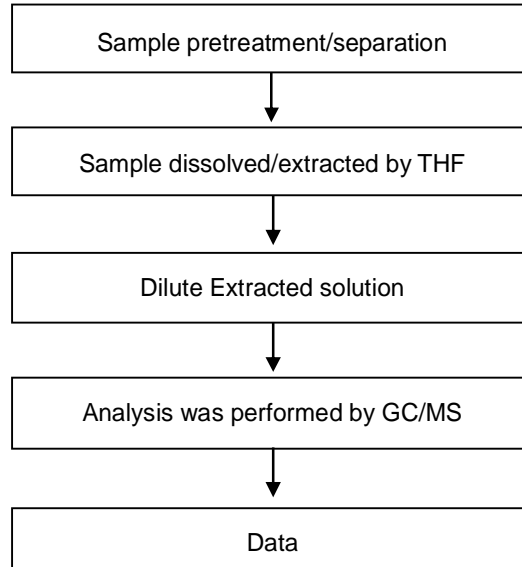
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Analytical flow chart of phthalate content

- 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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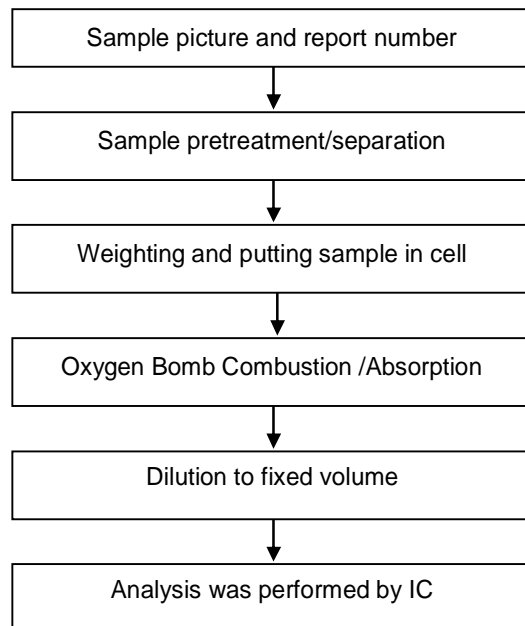
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Analytical flow chart of halogen content

- 1) Name of the person who made measurement: Jean Hung
- 2) Name of the person in charge of measurement: Ray Chang



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

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** End of Report **