



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. | : | MSK2 WHITE 0.102 |
| Color | : | WHITE/GREEN |
| Material Component | : | SILICONE FOAM |
| Country of Origin | : | USA |
| Country of Destination | : | TAIWAN |
| Lot No. | : | 17B06700003 |
| 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 : WHITE FOAM WITH GREEN FABRIC AT BOTH SIDE

| 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 | 391 |
| 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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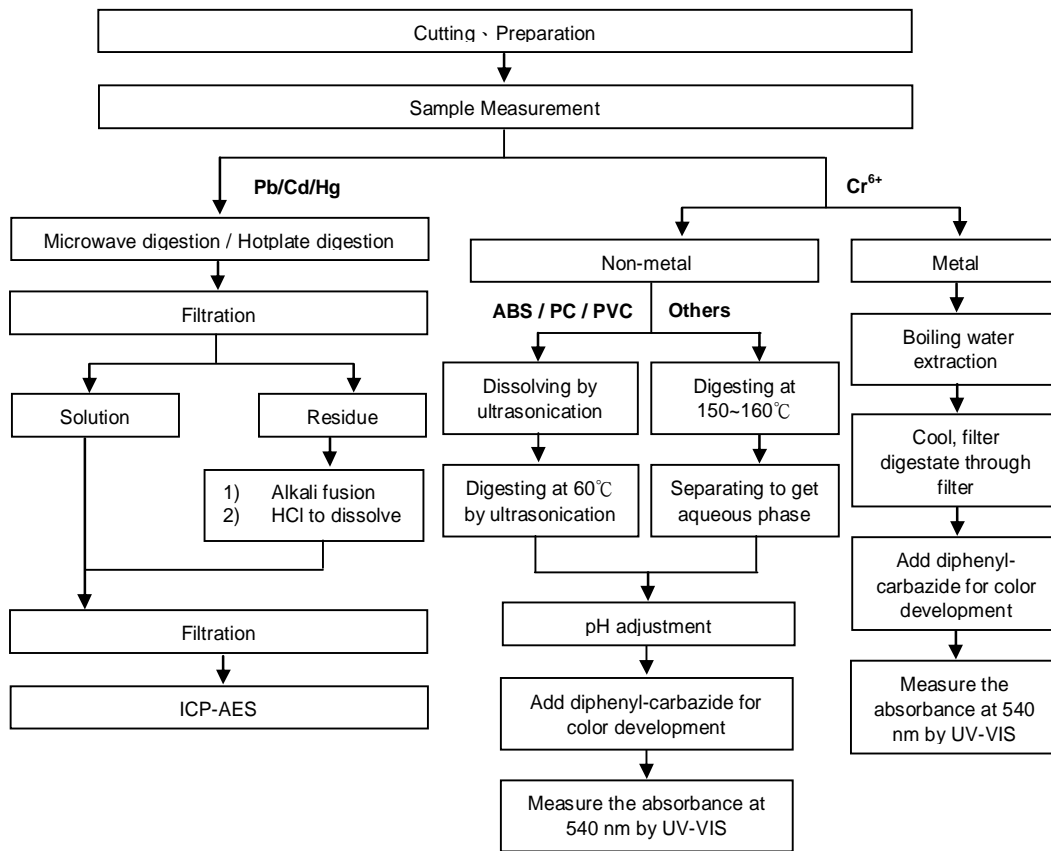
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ROGERS CORPORATION
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Analytical flow chart of Heavy Metal

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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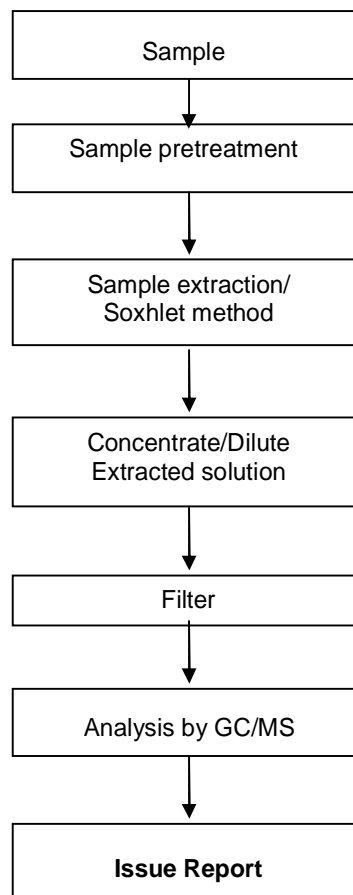
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PBB/PBDE analytical FLOW CHART

- 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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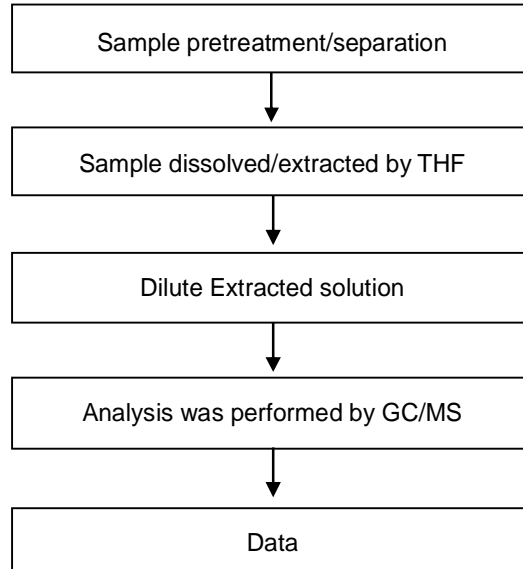
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Analytical flow chart of phthalate content

- 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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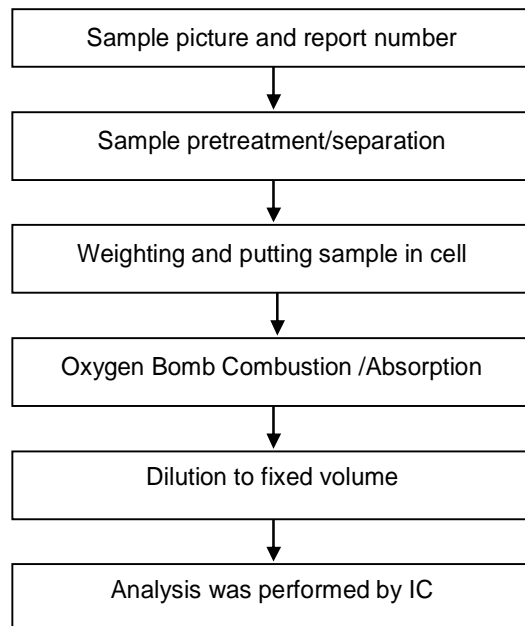
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Analytical flow chart of halogen content

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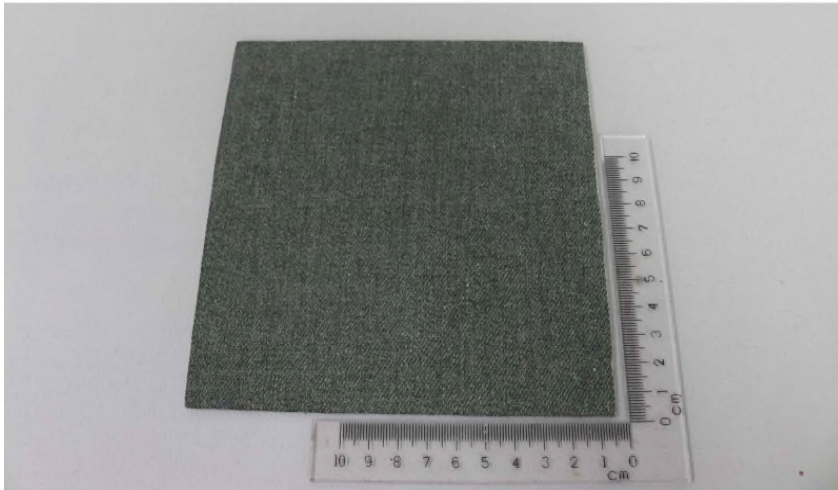
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* The tested sample / part is marked by an arrow if it's shown on the photo. *

KE/2017/C0127



** End of Report **