

Test Report No. 1987671

Date : 09-Oct-2018

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Client : POWERMAT ENGINEERING AND SUPPLY CO.,LTD.
63/200 Moo 10, Bangchalong, Bangplee,
Samutprakarn 10540, Thailand

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

Sample Description : Polyimide Tape NSP256
Sample No. : 2037801
Sample Condition : As per attached photograph
Part No. : NSP256
Country of Destination : Thailand

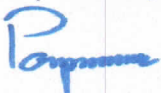
Sample Receiving Date : 09-Oct-2018
Testing Period : 06-Oct-2018 to 09-Sep-2018

Test Requested : In accordance with the RoHS Directive 2002/95/EC and its amendment directives

Test Method : (1) With reference to IEC 62321:2008 for Lead content, Analysis was performed by ICP-OES.
(2) With reference to IEC 62321:2008 for Cadmium content, Analysis was performed by ICP-OES.
(3) With reference to IEC 62321:2008 for Mercury content, Analysis was performed by ICP-OES.
(4) With reference to IEC 62321:2008 for Hexavalent Chromium by Alkaline Digestion / Colorimetric Method, Analysis was performed by UV-Vis Spectrometry.
(5) With reference to IEC 62321:2008 for PBB/PBDE content, Analysis was performed by GC/MS.

Test Results : Please refer to next page.

**Signed for and on behalf of
SGS (Thailand) Limited**



**Pornpana Lirathpong
Hardlines Testing Manager**

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TEST RESULTS

Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
Lead (Pb)	(1)	n.d.	2	1000
Cadmium (Cd)	(2)	n.d.	2	100
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium (CrVI) by Alkaline Digestion/Colorimetric Method	(4)	n.d.	2	1000
sum of PBBs	(5)	n.d.	-	1000
Monobromobiphenyl		n.d.	5	-
Dibromobiphenyl		n.d.	5	-
Tribromobiphenyl		n.d.	5	-
Tetrabromobiphenyl		n.d.	5	-
Pentabromobiphenyl		n.d.	5	-
Hexabromobiphenyl		n.d.	5	-
Heptabromobiphenyl		n.d.	5	-
Octabromobiphenyl		n.d.	5	-
Nonabromobiphenyl		n.d.	5	-
Decabromobiphenyl		n.d.	5	-

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TEST RESULTS

Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result (1)	MDL	RoHS Limit
Sum of PBDEs	(5)	n.d.	-	1000
Monobromodiphenyl ether		n.d.	5	-
Dibromodiphenyl ether		n.d.	5	-
Tribromodiphenyl ether		n.d.	5	-
Tetrabromodiphenyl ether		n.d.	5	-
Pentabromodiphenyl ether		n.d.	5	-
Hexabromodiphenyl ether		n.d.	5	-
Heptabromodiphenyl ether		n.d.	5	-
Octabromodiphenyl ether		n.d.	5	-
Nonabromodiphenyl ether		n.d.	5	-
Decabromodiphenyl ether		n.d.	5	-

Test Part Description

Result (1) brown paper tape

Note :

- (a) mg/kg = ppm ; 0.1 wt% = 1000 ppm
- (b) The results shown are based on the total weight of dry sample
- (c) n.d. = Not Detected
- (d) MDL = Method Detection Limit
- (e) The exemption of DecaBDE in polymeric application according 2005/17/EC was overruled by the European Court of Justice by its decision of 01.04.2008. Subsequently DecaBDE will be included in the sum of PBDE after 01.07.2008
- (f) "-" = Not regulated

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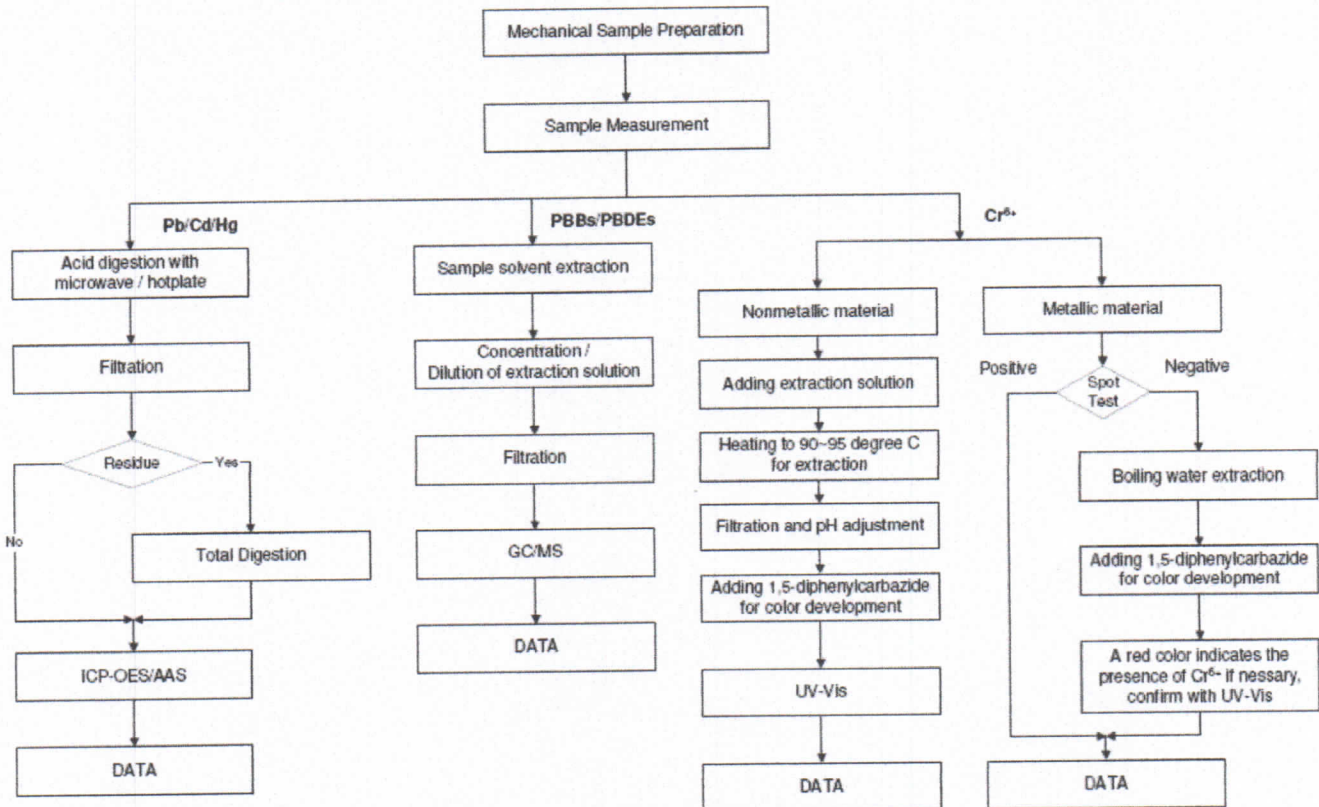
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Flow Chart for RoHS : Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs Testing

1. Operator : Siam Polarwut
2. Section Chief : Laddawan Uranpitr
3. The sample was dissolved totally by pre-conditioning method according to below flowchart. (Cr⁶⁺ and PBBs/PBDEs test method excluded)



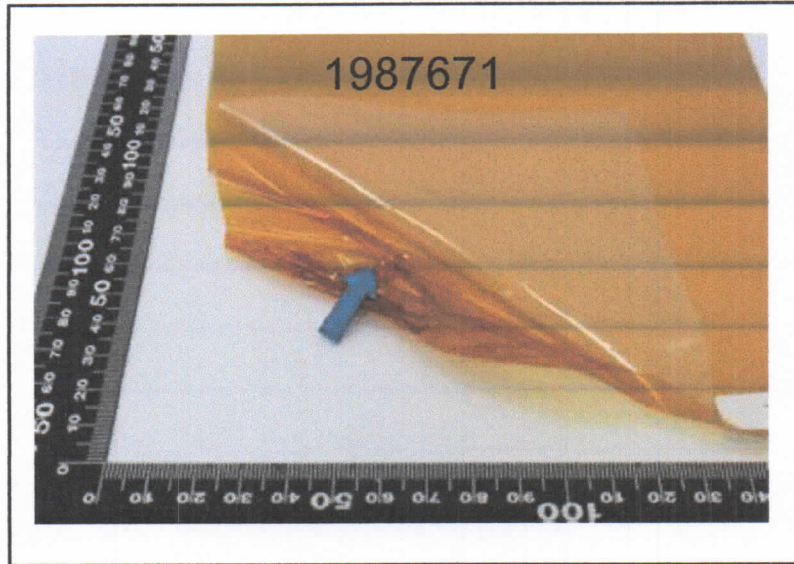
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SAMPLE/ATTACHMENT PICTURE



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

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