

Test Report

No. : CE/2020/80036A

Date : 2020/09/24

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APACK AUTOMATION CORPORATION

NO.13, LANE 164, FAIN HO STREET, HSI CHIH, NEW TAIPEI CITY, TAIWAN

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

Sample Submitted By : APACK AUTOMATION CORPORATION
 Sample Description : VISUAL FAULT LOCATOR
 Style/Item No. : VFL-125,VFL-250,VFL-1000
 Sample Receiving Date : 2020/01/07 and 2020/08/03
 Testing Period : 2020/01/07 to 2020/01/14 and 2020/08/03 to 2020/08/12

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 Result(s) : Please refer to following pages.

* This report is combined with reports of CE/2020/11700 and CE/2020/80036 *

Troy Chang
 Troy Chang / Manager - Tech
 Signed for and behalf of
 SGS TAIWAN LTD.
 Chemical Laboratory - Taipei



PIN CODE: 5D5FF4D1

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Test Result(s)

PART NAME No.1 : BLACK COATING (CE/2020/80036 No.1)
 PART NAME No.2 : GRAY PLASTIC (CE/2020/80036 No.2)
 PART NAME No.3 : WHITE PLASTIC (CE/2020/80036 No.3)
 PART NAME No.4 : BROWN LIQUID (CE/2020/11700)

Test Item(s)	Unit	Method	MDL	Result			
				No.1	No.2	No.3	No.4
Cadmium (Cd)	mg/kg	With reference to IEC 62321-5 (2013) and performed by ICP-OES.	2	n.d.	n.d.	n.d.	n.d.
Lead (Pb)	mg/kg		2	n.d.	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013+AMD1:2017 and performed by ICP-OES.	2	n.d.	n.d.	n.d.	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to IEC 62321-7-2 (2017) and performed by UV-VIS.	8	n.d.	n.d.	n.d.	n.d.
Sum of PBBs	mg/kg	With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	n.d.	n.d.	---
Monobromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Dibromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Tribromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Tetrabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Pentabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Hexabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Heptabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Octabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Nonabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---
Decabromobiphenyl	mg/kg		5	n.d.	n.d.	n.d.	---

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Test Item(s)	Unit	Method	MDL	Result			
				No.1	No.2	No.3	No.4
Sum of PBDEs	mg/kg	With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	n.d.	n.d.	---
Monobromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Dibromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Tribromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Tetrabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Pentabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Hexabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Heptabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Octabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Nonabromodiphenyl ether	mg/kg		5	n.d.	n.d.	n.d.	---
Decabromodiphenyl ether	mg/kg		5	n.d.	n.d.	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.	n.d.	n.d.	---
DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.	n.d.	n.d.	---
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.	n.d.	n.d.	---
DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg		50	n.d.	n.d.	n.d.	---

Note :

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

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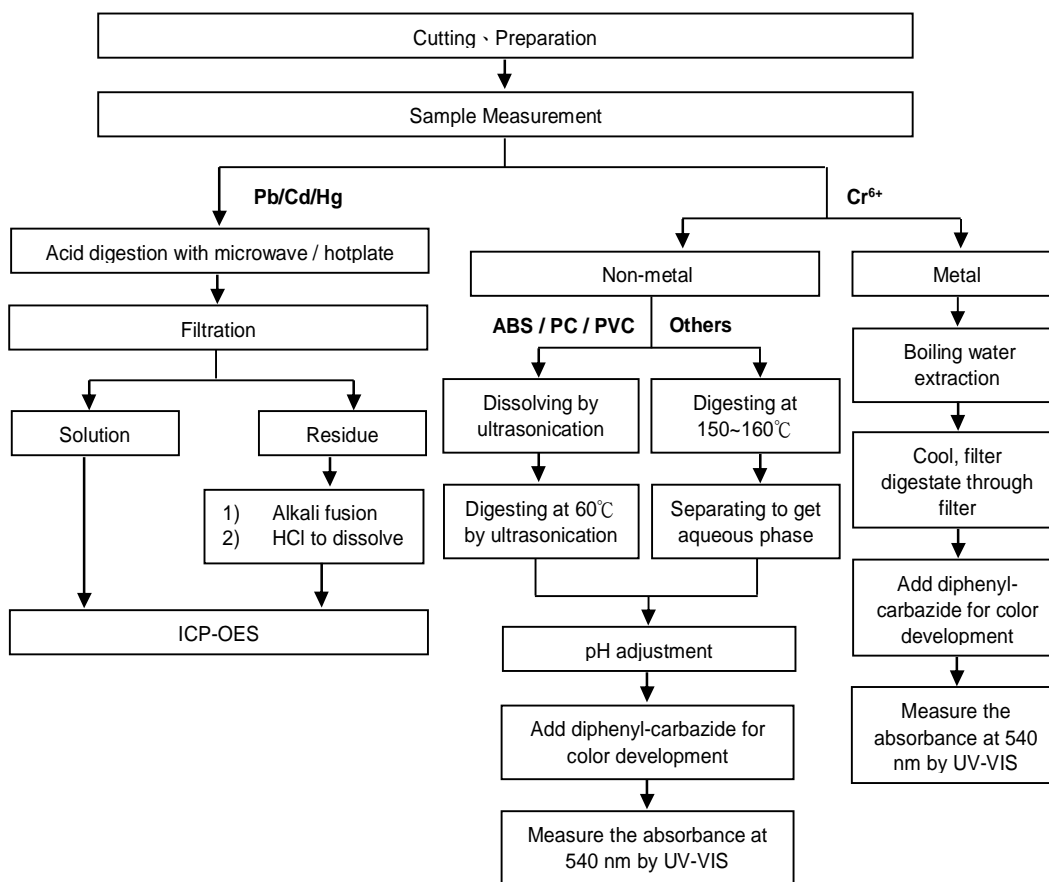
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Analytical flow chart of Heavy Metal

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



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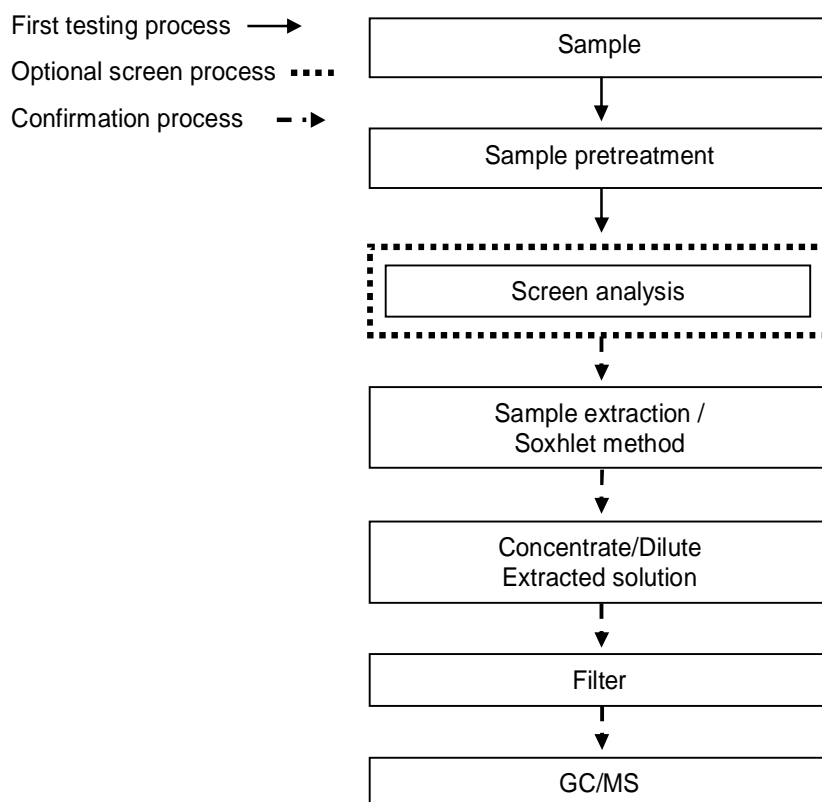
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Analytical flow chart – PBB / PBDE



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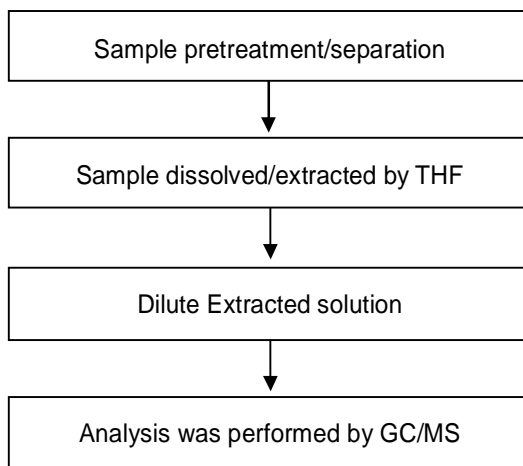
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Analytical flow chart - Phthalate

【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. *

No.1

CE/2020/80036 NO.1



No.2

CE/2020/80036 NO.2



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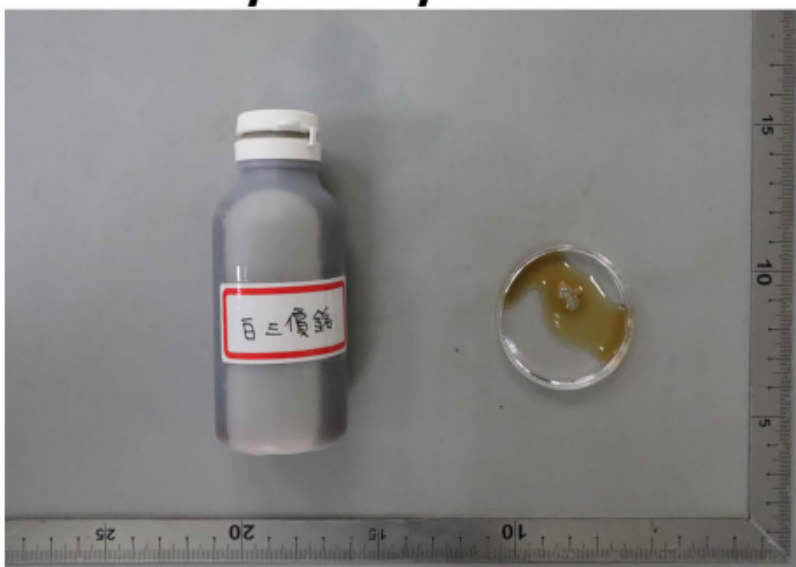
No.3

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No.4

CE/2020/11700



**** End of Report ****

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