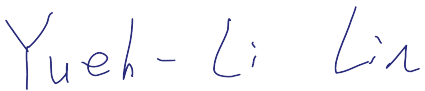



Prüfbericht - Nr.: 0238100012d 001		Seite 1 von 8	
<i>Test Report No.:</i>		<i>Page 1 of 8</i>	
Auftraggeber: <i>Client:</i>	Formosa Chemicals & Fibre Corporation 201, Tung Hwa N. Rd., Taipei 105, Taiwan, R.O.C.		
Gegenstand der Prüfung: <i>Test Item:</i>	Polycarbonate / Acrylonitrile/Butadiene/Styrene Copolymers (PC/ABS)		
Bezeichnung: <i>Identification:</i>	TAIRILOY PC/ABS : AC2000, AC2300, AC2500, AC2501, AC3100, AC3208		
Anlieferungszustand: <i>Delivery condition:</i>	apparent good	Eingangsdatum: <i>Date of Receipt:</i>	2019-01-09
Prüfört: <i>Testing location:</i>	TÜV Rheinland (Shanghai) Co. Ltd.		
Prüfgrundlage: <i>Test specification:</i>	According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU last amended by (EU) 2015/863: Total Content of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers; and Benzylbutyl phthalate (BBP), Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Diisobutyl phthalate (DIBP)		
Prüfergebnis: <i>Test result:</i>	According to the kind and extend of tests performed the above mentioned test item passed the test specification.		
geprüft: <i>tested by:</i>	kontrolliert: <i>checked by:</i>		
 Yueh-Li Lin		 Tammy Wang	
2019-01-24 Yueh-Li Lin /Senior Project Coordinator		2019-01-24 Tammy Wang /Assistant Manager	
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>
			Name/Stellung <i>Name/Position</i>
			Unterschrift <i>Signature</i>
Sonstiges/ Other Aspects:			
Test period: 2019-01-09 – 2019-01-22			
Abkürzungen:	ok / P = entspricht Prüfgrundlage fail / F = entspricht nicht Prüfgrundlage n.a. / N = nicht anwendbar	Abbreviations:	ok / P = passed fail / F = failed n.a. / N = not applicable
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>			



Test Report No. : 0238100012d 001
Customer : Formosa Chemicals & Fibre Corporation

2019-01-24

Sample list:

Mat. No.	Description	Material	Color	Location / Lab no.:
1	AC2000	Plastic	Off white	TCL190109-52
2	AC2300	Plastic	Off white	TCL190109-53
3	AC2500	Plastic	Off white	TCL190109-54
4	AC2501	Plastic	Off white	TCL190109-55
5	AC3100	Plastic	Off white	TCL190109-56
6	AC3208	Plastic	Off white	TCL190109-57



Test Report No. : 0238100012d 001 2019-01-24
 Customer : Formosa Chemicals & Fibre Corporation
 Test Method : Total Cadmium, Lead, Mercury, Chromium
 - Ref. to IEC 62321-4:2013 and IEC 62321-5:2013
 Chromium (VI)
 - For Metal material - Ref. to IEC 62321-7-1:2015
 - For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017
 - For Leather material - Ref. to EN ISO 17075-1:2017
 PBBs, PBDEs - Ref. to IEC 62321-6:2015

Sample/Material No.		LoD	1	2	3	4
Cadmium (Cd)	mg/kg	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	2	n.d.	n.d.	n.d.	n.d.
Chromium VI (Cr VI)*	mg/kg	10	n.d.	n.d.	n.d.	n.d.
Sum of Polybrominated biphenyls (PBBs)	mg/kg	-	n.d.	n.d.	n.d.	n.d.
Monobromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Dibromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Tribromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Tetrabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Pentabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Hexabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Heptabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Octabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Nonabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Decabromobiphenyl	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Sum of Polybrominated diphenyl ethers (PBDEs)	mg/kg	-	n.d.	n.d.	n.d.	n.d.
Monobromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Dibromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Tribromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Tetrabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Pentabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Hexabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Heptabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Octabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Nonabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.
Decabromodiphenyl ether	mg/kg	5	n.d.	n.d.	n.d.	n.d.

Notes:

- n.d. - not detected
- n.a. - not applicable
- LoD - Limit of Detection
- mg/kg is equal to ppm (parts per million)
- * Once the total Cr content in metal/ plastic or electronic sample is found to be exceeded the limit, the Cr (VI) content will be confirmed with reference to IEC 62321-7-1:2015/ IEC 62321-7-2:2017



Test Report No. : 0238100012d 001
 Customer : Formosa Chemicals & Fibre Corporation
 Test Method : Total Cadmium, Lead, Mercury, Chromium
 - Ref. to IEC 62321-4:2013 and IEC 62321-5:2013
 Chromium (VI)
 - For Metal material - Ref. to IEC 62321-7-1:2015
 - For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017
 - For Leather material - Ref. to EN ISO 17075-1:2017
 PBBs, PBDEs - Ref. to IEC 62321-6:2015

2019-01-24

Sample/Material No.		LoD	5	6
Cadmium (Cd)	mg/kg	2	n.d.	n.d.
Lead (Pb)	mg/kg	2	n.d.	n.d.
Mercury (Hg)	mg/kg	2	n.d.	n.d.
Chromium VI (Cr VI)*	mg/kg	10	n.d.	n.d.
Sum of Polybrominated biphenyls (PBBs)	mg/kg	-	n.d.	n.d.
Monobromobiphenyl	mg/kg	5	n.d.	n.d.
Dibromobiphenyl	mg/kg	5	n.d.	n.d.
Tribromobiphenyl	mg/kg	5	n.d.	n.d.
Tetrabromobiphenyl	mg/kg	5	n.d.	n.d.
Pentabromobiphenyl	mg/kg	5	n.d.	n.d.
Hexabromobiphenyl	mg/kg	5	n.d.	n.d.
Heptabromobiphenyl	mg/kg	5	n.d.	n.d.
Octabromobiphenyl	mg/kg	5	n.d.	n.d.
Nonabromobiphenyl	mg/kg	5	n.d.	n.d.
Decabromobiphenyl	mg/kg	5	n.d.	n.d.
Sum of Polybrominated diphenyl ethers (PBDEs)	mg/kg	-	n.d.	n.d.
Monobromodiphenyl ether	mg/kg	5	n.d.	n.d.
Dibromodiphenyl ether	mg/kg	5	n.d.	n.d.
Tribromodiphenyl ether	mg/kg	5	n.d.	n.d.
Tetrabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Pentabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Hexabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Heptabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Octabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Nonabromodiphenyl ether	mg/kg	5	n.d.	n.d.
Decabromodiphenyl ether	mg/kg	5	n.d.	n.d.

Notes:

- n.d. - not detected
- n.a. - not applicable
- LoD - Limit of Detection
- mg/kg is equal to ppm (parts per million)
- * Once the total Cr content in metal/ plastic or electronic sample is found to be exceeded the limit, the Cr (VI) content will be confirmed with reference to IEC 62321-7-1:2015/ IEC 62321-7-2:2017

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum permissible Limit acc. to 2011/65/EU (mg/kg)	100	1000	1000	1000	1000	1000



Produkte
Products

Test Report No. : 0238100012d 001
 Customer : Formosa Chemicals & Fibre Corporation
 Test Method : BBP/DBP/DEHP/DIBP - Ref. to IEC 62321-8:2017

2019-01-24

Sample/Material No.	LoD	1	2	3	4
Benzylbutylphthalate (BBP) mg/kg	50	n.d.	n.d.	n.d.	n.d.
Dibutylphthalate (DBP) mg/kg	50	n.d.	n.d.	n.d.	n.d.
Diethylhexylphthalate (DEHP) mg/kg	50	n.d.	n.d.	n.d.	n.d.
Diisobutylphthalate (DIBP) mg/kg	50	n.d.	n.d.	n.d.	n.d.

Sample/Material No.	LoD	5	6
Benzylbutylphthalate (BBP) mg/kg	50	n.d.	n.d.
Dibutylphthalate (DBP) mg/kg	50	n.d.	n.d.
Diethylhexylphthalate (DEHP) mg/kg	50	n.d.	n.d.
Diisobutylphthalate (DIBP) mg/kg	50	n.d.	n.d.

Notes:

- n.d. - not detected
- n.a. - not applicable
- LoD - Limit of Detection
- mg/kg is equal to ppm (parts per million)

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg)	1000	1000	1000	1000



Test Report No. : 0238100012d 001
Customer : Formosa Chemicals & Fibre Corporation

2019-01-24

Test Sample



1



2



3



4



5



6

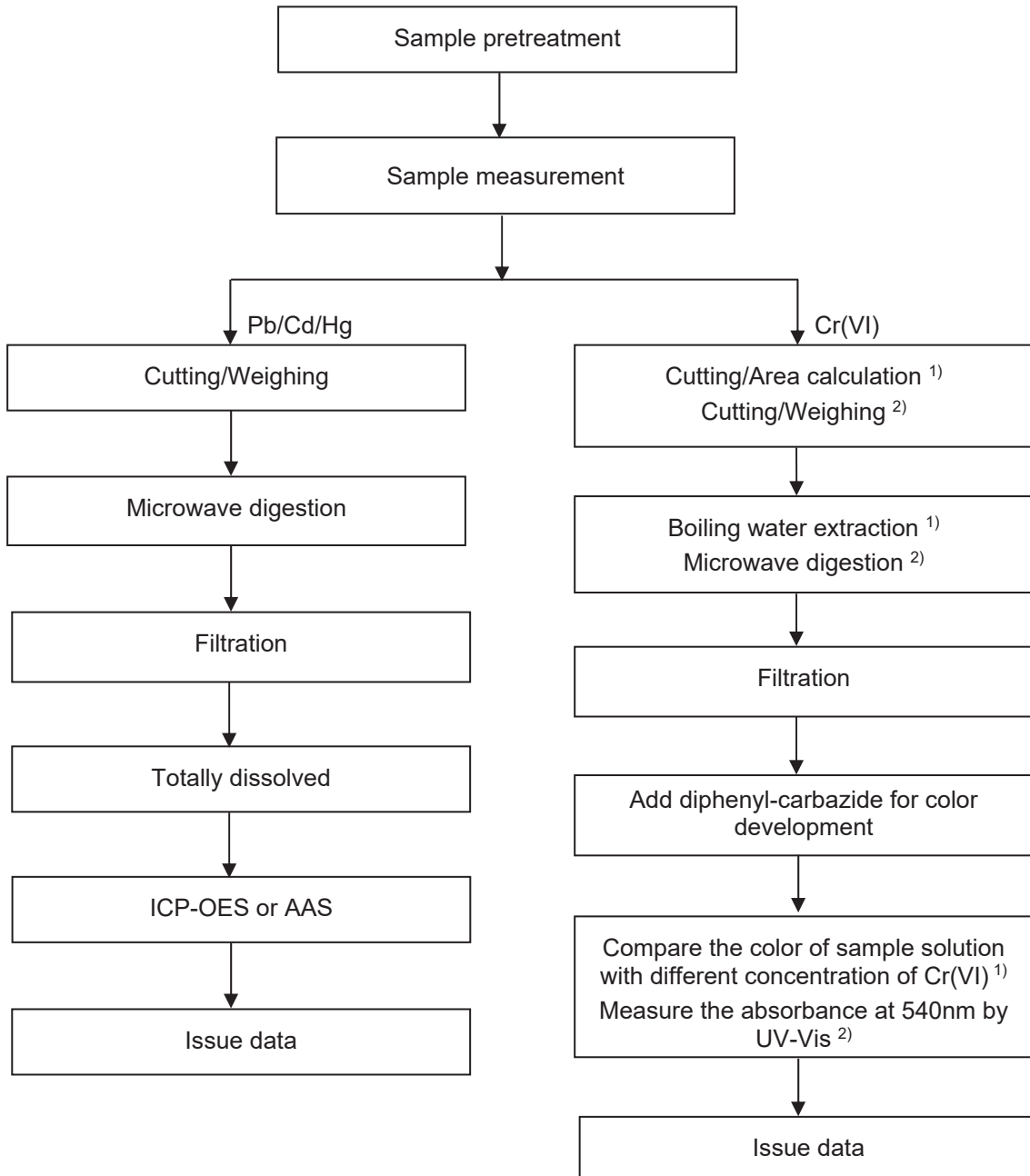


Test Report No. : 0238100012d 001
 Customer : Formosa Chemicals & Fibre Corporation

2019-01-24

Testing procedure:

RoHS (Pb, Cd, Hg, Cr(VI))



Notes: ¹⁾ For metallic material
²⁾ For non-metallic material

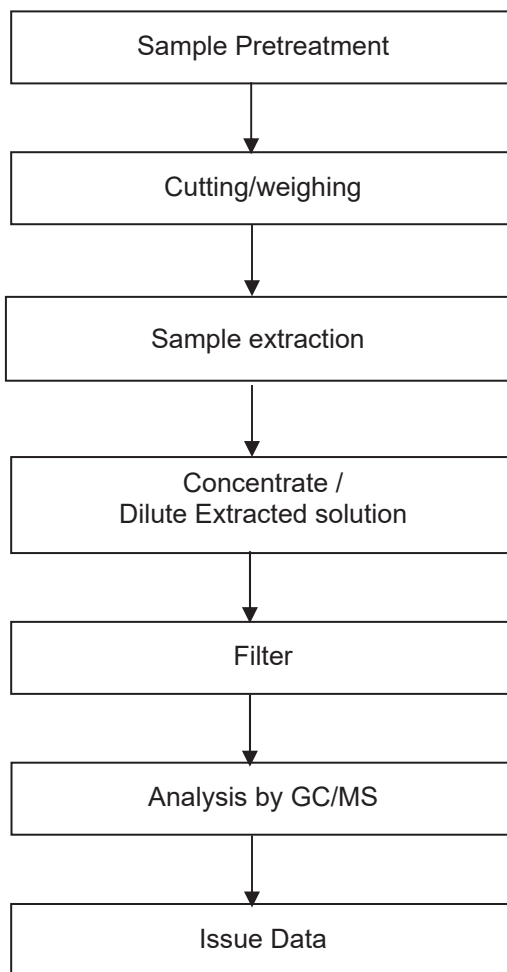


Test Report No. : 0238100012d 001
Customer : Formosa Chemicals & Fibre Corporation

2019-01-24

Testing procedure:

RoHS (PBBs/PBDEs, DEHP/DBP/BBP/DIBP)



--- End of Test-Report ---

