


Produkte
 Products

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Auftraggeber: Client:	THAI POLYCARBONATE Co.,Ltd. No.1, Padaeng Industrial Estate, Padaeng Road, Map-Ta-Phut, Rayong 21150		
Gegenstand der Prüfung: Test item:	POLYCARBONATE RESIN		
Bezeichnung: Identification:	N/A	Serien-Nr.: Serial No.:	N/A
Wareneingangs-Nr.: Receipt No.:	1203039603/2	Eingangsdatum: Date of receipt:	2 January 2015
Prüfört: Testing location:	TÜV Rheinland Thailand Ltd. Global Technology Assessment Center Bangkok (GTAC BKK) Ladkrabang Industrial Estate 123/1, Floor 1-2 Soi Chalongsung 31, Lamplatew, Ladkrabang, Bangkok 10520 Thailand		
Prüfgrundlage: Test specification:	Chemical requirements / parameters selected by customer:- Restriction of the Use of Hazardous Substances Directive (RoHS), 2011/65/EU (recast)		
Prüfresultat: Test Result:	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). The test item passed the test specification(s).		
Prüflaboratorium: Testing Laboratory:	TÜV Rheinland Thailand Ltd.		
geprüft/ tested by:	kontrolliert/ reviewed by:		
 8 January 2015 Manunya Polboonsri/ Senior Chemist Datum Name/Stellung Unterschrift Date Name/Position Signature		 8 January 2015 Wilawan Sriprom/ Softlines Manager Datum Name/Stellung Unterschrift Date Name/Position Signature	
Sonstiges/ Other Aspects:			
Information provided by clients:			
Grade : E-2000XX, E-2001XX, S-1000XX, S-2000XX, S-2001XX, S-3000XX, S-3001XX, H-2000XX, H-2001XX, H-3000XX, H-3001XX, H-3300XX, H-3700XX			
Other information:			
Testing period: 2 – 8 January 2015			
Delivery Condition: Apparent good			
Abkürzungen: P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet		Abbreviations: P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested	
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>			

Material list

Material No.	Material	Color	Location
M001	Polycarbonate resin	Natural & Ice	Refer to photo

Total Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs Content

Test method:
 Total Lead, Cadmium, Mercury - Ref. to IEC 62321 Ed.,1, 2008, determine by ICP-MS
 Chromium VI - Ref. to IEC 62321 Ed.,1, 2008, determine by UV-Vis Spectrometer
 PBBs, PBDEs - Ref. to IEC 62321 Ed.,1, 2008, determine by GC-MS

Analyte (s):	Unit	MDL	Result	Maximum
			M001	Permissible Limit
Lead (Pb)	mg/kg	2	n.d.	1000
Cadmium (Cd)	mg/kg	2	n.d.	100
Mercury (Hg)	mg/kg	2	n.d.	1000
Hexavalent Chromium (Cr VI) by Alkaline Digestion/ Colorimetric Method	mg/kg	2	n.d.	1000
Bromobiphenyl	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 PBBs	mg/kg	-	n.d.	1000
Bromodiphenylether	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.	--
Sum of PBDEs	mg/kg	-	n.d.	1000

Abbreviation: n.d. denotes Not Detected (<MDL)
 MDL denotes Method Detection Limit
 mg/kg denotes Milligram per kilogram
 PBBs denotes Total Polybrominated Biphenyl
 PBDEs denotes Total Polybrominated Diphenyl Ethers
 -- denotes Not regulated

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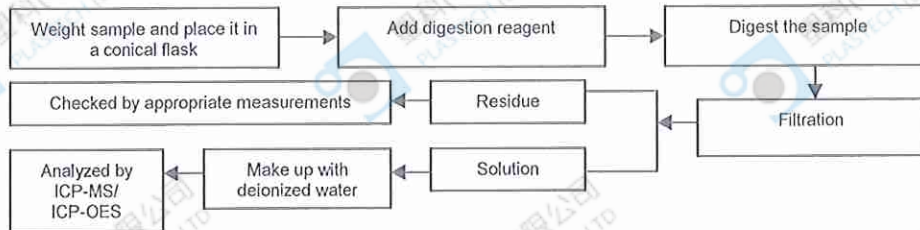
Sample photo:



Flow chart of RoHS: Pb/ Cd Content

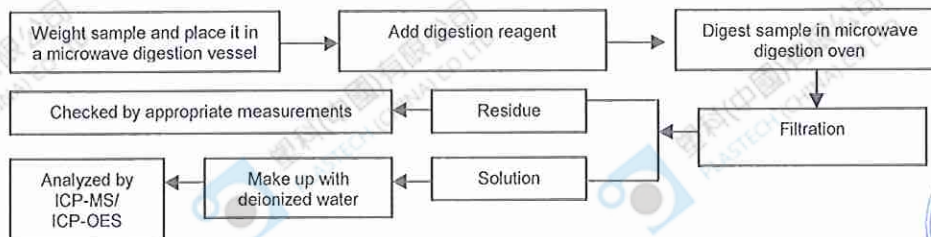
IEC 62321: 2008 Ed.1 Sec.9

- 1) The sample was totally dissolved by pre-conditioning method according to below flow chart
- 2) Name of the person who made measurement: Sirinthip Rungwichaprasoet
- 3) Name of the person in charge of measurement: Sirinthip Rungwichaprasoet


Flow chart of RoHS: Hg Content

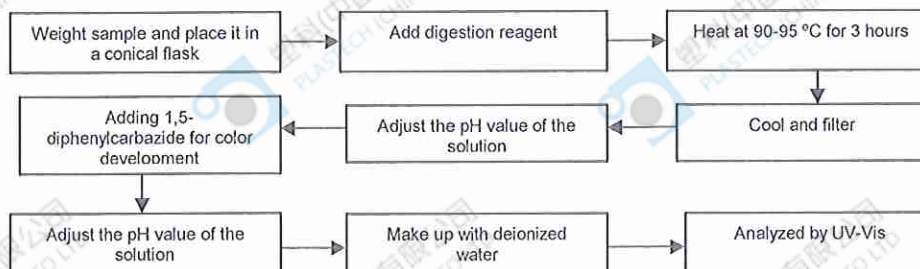
IEC 62321: 2008 Ed.1 Sec.7

- 1) The sample was totally dissolved by pre-conditioning method according to below flow chart
- 2) Name of the person who made measurement: Sirinthip Rungwichaprasoet
- 3) Name of the person in charge of measurement: Sirinthip Rungwichaprasoet


Flow chart of RoHS:Cr (VI) Content

IEC 62321: 2008 Ed.1 Annex C

- 1) Name of the person who made measurement: Natthapong Jongrak
- 2) Name of the person in charge of measurement: Natthapong Jongrak



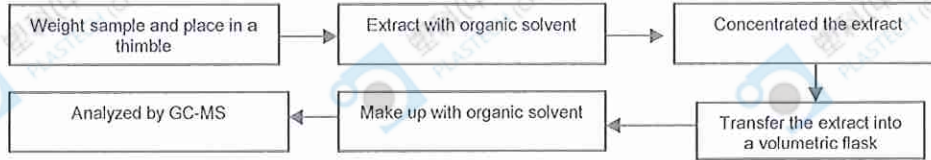
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Flow chart of RoHS: PBBs/ PBDEs Content

IEC 62321: 2008 Ed.1 Annex A

- 1) Name of the person who made measurement: Rangrong Tassanapayak
- 2) Name of the person in charge of measurement: Rangrong Tassanapayak



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□ TÜV Rheinland Thailand Ltd.
18/F, Tararom Business Tower
2445/36-38 New patchburi Road
Bangkapi, Huay Kwang
Bangkok 10320
Tel +66 (0) 2318-4862
Fax +66 (0) 2318-4864, +66 (0) 2318-6084
Email info@tha.tuv.com
Web www.tuv.co.th

□ TÜV Rheinland Thailand Ltd.
Global Technology Assessment Center Bangkok
Ladkrabang Industrial Estate
123/1 Floor 1-2, Soi Chalongsung 31, Lamplatew
Sub-district, Ladkrabang District, Bangkok 10520
Tel +66 (0) 2326-1333
Fax +66 (0) 2326-1334-5
Email info@tha.tuv.com
Web www.tuv.co.th

□ TÜV Rheinland Thailand Ltd.
Hatyai Branch Office
7,9,11,13,15 3/F, Chaiyong Building, Room 3 C
Juli-Uthit 1 Road, Hatyai, Songkhla 90110
Tel +66 (0) 74 247550-2
Fax +66 (0) 74 247553
Email info@tha.tuv.com
Web www.tuv.co.th