



Certificate No. TC-5688



**TÜVRheinland®**  
Precisely Right.

Test Report - Industry Services

<b>Prüfbericht - Nr.:</b> <i>Test Report No.:</i>	IND/BLR/CH/2022/2731	<b>Seite 1 von 4</b> Page 1 of 4	
<b>ULR No:</b>	TC56882250000002731F		
<b>Auftraggeber:</b> <i>Client:</i>	<b>Pelican Engitech Private Limited</b> Revenue Survey No.289-p1, 280-p2,291 and 293, Plot No.31,Saffron Industrial Park,Near Gardi College, Off Kalawad Road, Village-Aanandpar, Taluka-Sub District-Kalavad Jamnagar 361162,State-Gujarat (India)		
<b>Kunden-referenz-Nr.:</b> <i>Client reference no.:</i>	TRF dated: 2022.03.28	<b>Auftrags-Nr:</b> <i>Order no.:</i>	146666163
<b>Gegenstand der Prüfung:</b> <i>Test item:</i>	High Tensile Fasteners	<b>Auftragsdatum:</b> <i>Order date.:</i>	2022.04.01
<b>Bezeichnung Typ-Nr.:</b> <i>Identification / Type No.:</i>	-	<b>Wareneingangsdatum:</b> <i>Date of sample receipt:</i>	2022.04.01
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Chemical Test	<b>Prüfmuster-Nr:</b> <i>Test sample no.:</i>	2731
<b>Prüfgrundlage:</b> <i>Test specification:</i>	RoHS Directive Compliance : Restriction of the use of Hazardous Substances Directive 2011/65/EU, RoHS2 including Phthalates as per EU/2015/863.	<b>Prüfzeitraum</b> <i>Testing Period:</i>	2022.04.01 to 2022.04.07
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Plot No. 27B, 2 <sup>nd</sup> Cross, Electronic City Phase1, Hosur Road, Bangalore - 560 100, Karnataka, India.		
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (India) Private Limited		
<b>Prüfergebnis:</b> <i>Test Result:</i>	PASS		
<b>Zusammengestellt:</b> <i>compiled by</i>	Suresh M	<b>Genehmigt von:</b> <i>Authorized by:</i>	Rajesh Jain B
<b>Datum:</b> <i>Date:</i>	2022.04.07	<b>Ausstelldatum:</b> <i>Issue date:</i>	2022.04.07
<b>Stellung / Position:</b>	Asst.Manager, Material Testing Laboratories	<b>Stellung / Position:</b>	Asst. General Manager Material Testing Laboratories
<b>Sonstiges/ Other:</b> Nil.			
<b>Zustand des prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at the time of delivery:</i>		Sample Received as good condition.	
<b>Abkürzungen:</b>	ok / P = entspricht Prüfgrundlage fail / F = entspricht nicht Prüfgrundlage n.a. / N = nicht anwendbar	<b>Abbreviations:</b>	ok / P = passed fail / F = failed n.a. / N = not applicable
<b>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.</b> <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 test mark. Test item submitted by client. Sampling not done by TUVRI. 'Laboratory employs simple acceptance rule in making Pass or Fail decisions on test results with no guard band'</i>			



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## TEST RESULTS

Discipline: Chemical. Product Group: Hazardous & Restricted Chemicals

### 1. Heavy Metals:

Test Methods: EN 62321-4:2017, EN 62321-5:2014, ICP-OES for Total Cadmium, Lead, Mercury, Chromium EN 62321-7-2:2017, Spectrophotometer for Hexavalent Chromium

Sample No.	Unit	Total Cadmium	Hexavalent Chromium	Total Mercury	Total Lead
Sample-001-Plating Material	mg/kg	ND	ND	ND	ND
Sample-001-Base Material	mg/kg	ND	ND	ND	ND
RoHS Limit, Max.	mg/kg	100	1000	1000	1000

Limit of Detection : Total Cadmium, Lead, Mercury, Hexavalent Chromium : 1 mg/kg  
Abbreviation : "mg/kg" denotes milligram per kilogram, "ND" denotes not detected

### 2. PBB's and PBDE's:

Test Methods: EN 62321-6:2015, GC-MS for PBB's and PBDE's

Flame Retardants		Results, Sample 001, mg/kg.
PBBs	Bromobiphenyl	ND
	Dibromobiphenyl	ND
	Tribromobiphenyl	ND
	Tetrabromobiphenyl	ND
	Pentabromobiphenyl	ND
	Hexabromobiphenyl	ND
	Heptabromobiphenyl	ND
	Octabromobiphenyl	ND
	Nonabromobiphenyl	ND
	Decabromobiphenyl	ND
	Sum of PBB's	< 2.5
	RoHS Limit, Sum of PBB's	1000
	PBDEs	Bromodiphenylether
Dibromodiphenylether		ND
Tribromodiphenylether		ND
Tetrabromodiphenylether		ND
Pentabromodiphenylether		ND
Hexabromodiphenylether		ND
Heptabromodiphenylether		ND
Octabromodiphenylether		ND
Nonabromodiphenylether		ND
Decabromodiphenyl ether		ND
Sum of PBDE's		< 2.5
RoHS Limit, Sum of PBDE's		1000

Limit of Detection : PBB's & PBDE's – 0.25 mg/kg Each  
Abbreviation : "mg/kg" denotes milligram per kilogram, "ND" denotes not detected



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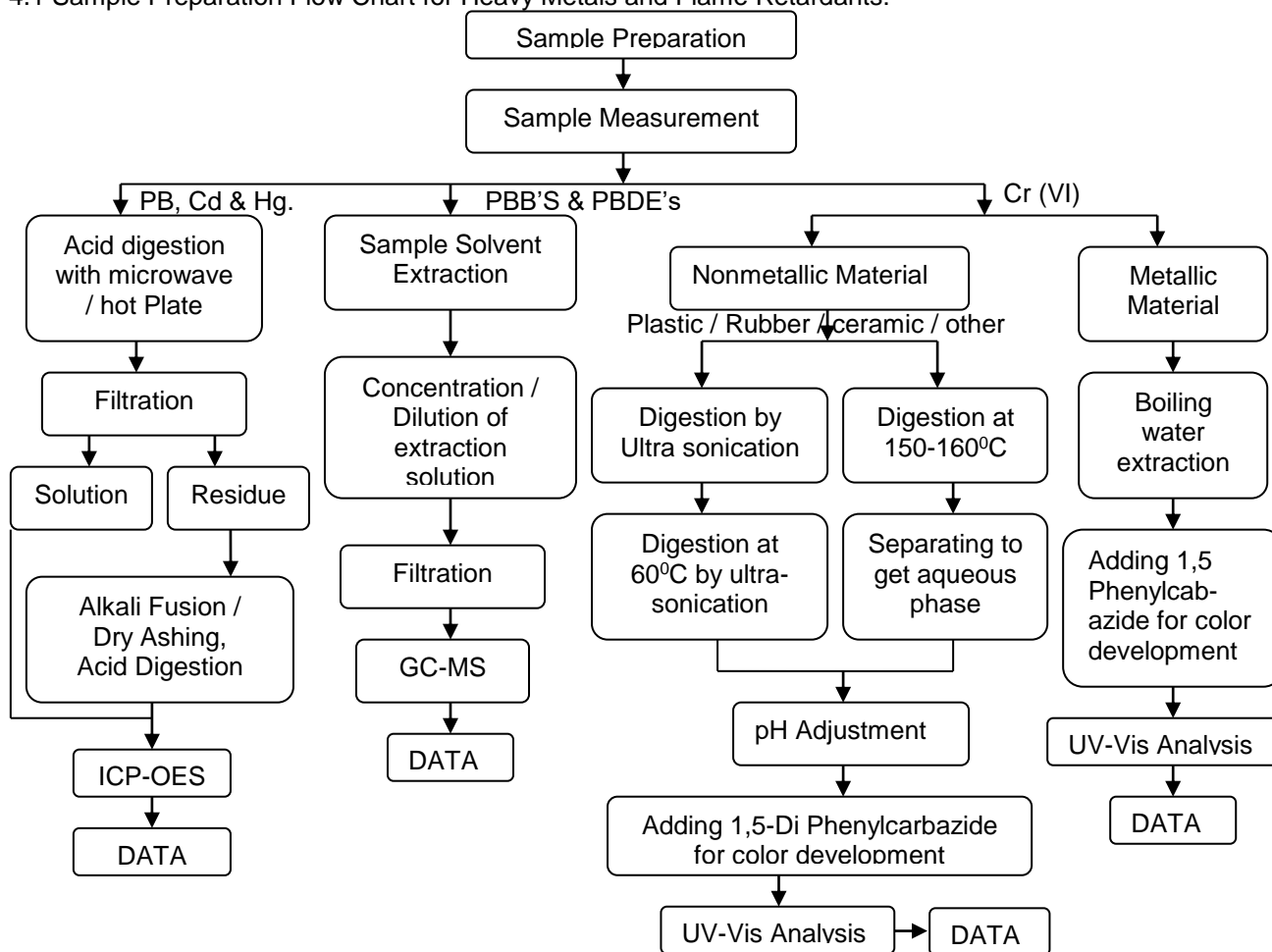
**3. Phthalates: Sample-001**

Sl.no	Test / Parameter	Unit	Limit	Results	Test Method
1	Dibutyl Phthalate(DBP)	mg/kg	1000	ND	IEC 62321-8:2017, GC-MS
2	Benzyl Butyl Phthalate(BBP)		1000	ND	IEC 62321-8:2017, GC-MS
3	Diethyl Hexyl Phthalate(DEHP)		1000	ND	IEC 62321-8:2017, GC-MS
4	Di Iso Butyl Phthalate(DiBP)		1000	ND	IEC 62321-8:2017, GC-MS

Note: Detection Limit for Phthalates: 1mg/kg. GC-MS Denotes Gas chromatograph Mass spectrometer 'ND'- Denotes 'not detected'. "mg/kg" Denotes milligram per kilogram

**Remarks:** The sample tested above has been verified to comply with the requirements of employed directive 2011/65/EU, RoHS2, including Phthalates as per EU/2015/863.

**4.1 Sample Preparation Flow Chart for Heavy Metals and Flame Retardants:**



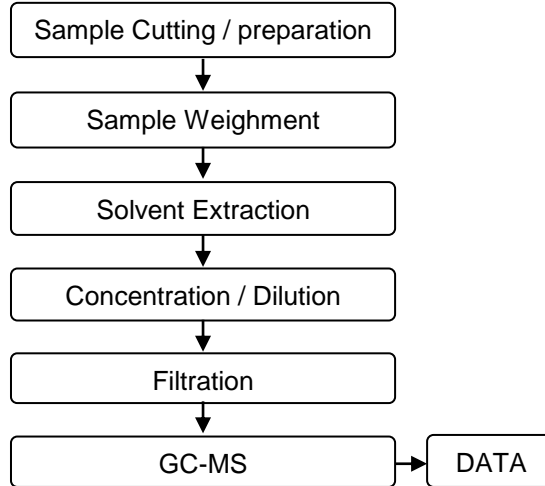


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**Seite 4 von 4**  
Page 4 of 4

4.2 Phthalates Testing Flow Chart



5. Test item Photograph:



---- End of Test Report ----