

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 1 of 14

Applicant : Mid Ocean Brands B.V.**Address:** 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

The following sample(s) and sample information was/were submitted and identified by client as:

Sample Name: Laser pointer touch pen,
Laser pointer in wooden box**Model:** MO8097, MO8193**Vendor code:** 107978**Receiving Date:** Mar 7,2025; Mar 27,2025**Test Period:** From Mar 7,2025 to Apr 1,2025**Add Information:** -**Test Summary:**

#	Test Item(s)	Conclusion
1	Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs, DBP, BBP, DEHP and DIBP EU RoHS Directive 2011/65/EU and its amendment directives (EU) 2015/863 ,(EU)2017/2102,(EU)2022/1632 (RoHS 2.0)	PASS

*****Please refer to the following page for detailed results*****

Authorized Signatory

Mark Mai
(Technical Director)

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 2 of 14

Result:

1.1 EU RoHS Directive 2011/65/EU and its amendment directives on XRF IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

Seq. No.	Tested Part(s)	Results				
		Pb	Cd	Hg	Cr	Br
1	Silvery metal,shell	BL	BL	BL	BL	NA
2	Grey foam, cushion	BL	BL	BL	BL	BL
3	Silvery metal,pole	BL	BL	BL	BL	NA
4	Black soft plastic, lid	BL	BL	BL	BL	BL
5	Bright silvery coating, loop	BL	BL	BL	BL	BL
6	Black plastic, loop	BL	BL	BL	BL	BL
7	Silvery plated coppery metal,shell	BL	BL	BL	X	NA
8	Bright silvery coating, loop	BL	BL	BL	BL	BL
9	White plastic, loop	BL	BL	BL	BL	BL
10	White plastic, button	BL	BL	BL	BL	BL
11	Silvery metal,pothook	BL	BL	BL	BL	NA
12	White plastic, stopper	BL	BL	BL	BL	BL
13	Transparent plastic, tube	BL	BL	BL	BL	BL
14	Black pigment	BL	BL	BL	BL	BL
15	Silvery metal,pen point	BL	BL	BL	BL	NA
16	Silvery metal,bead	BL	BL	BL	BL	NA
17	Silvery metal,spring	BL	BL	BL	X	NA
18	Translucent plastic, base	BL	BL	BL	BL	BL
19	Transparent plastic, LED	BL	BL	BL	BL	X
20	Silvery metal,lead	BL	BL	BL	BL	NA
21	Black soft plastic, wire jacket	BL	BL	BL	BL	BL
22	Silvery coating, shell	BL	BL	BL	BL	BL
23	Black plastic, shell	BL	BL	BL	BL	BL
24	Black plastic, lid	BL	BL	BL	BL	BL
25	Transparent plastic, lid	BL	BL	BL	BL	BL

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 3 of 14

26	Silvery metal,spring	BL	BL	BL	X	NA
27	Golden metal,spring	BL	X	BL	BL	NA
28	Red plastic, button	BL	BL	BL	BL	BL
29	Silvery metal,shell	BL	BL	BL	BL	NA
30	Silvery metal,spring plate	BL	BL	BL	BL	NA
31	Black plastic, base	BL	BL	BL	BL	BL
32	Silvery metal,lead	BL	BL	BL	BL	NA
33	Black self-adhesive sticker	BL	BL	BL	BL	BL
34	Silvery metal,contact plate	BL	BL	BL	BL	NA
35	Silvery metal,solder	BL	BL	BL	BL	NA
36	Yellow PCB	BL	BL	BL	BL	BL
37	Black body, resistance	BL	BL	BL	BL	BL
38	Brown/fuscous brown plastic, film	BL	BL	BL	BL	BL
39	Black printing transparent plastic, mark	BL	BL	BL	BL	BL
40	Brown fiber board, storage box	BL	BL	BL	BL	BL
41	White paper, storage box	BL	BL	BL	BL	BL
42	Grey/black foam, cushion	BL	BL	BL	BL	BL
43	Coppery metal,tube	BL	BL	BL	BL	NA
44	White/green/grey plastic, tube	BL	BL	BL	BL	BL
45	Silvery-grey metal,spring	BL	BL	BL	X	NA
46	Blue pigment	BL	BL	BL	BL	BL

Remark:

- (1) Results were obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.

Element	Unit	Polymers	Metals	Composite material
Cd	mg/kg	$BL \leq 70-3\sigma < X < 130+3\sigma \leq OL$	$BL \leq 70-3\sigma < X < 130+3\sigma \leq OL$	$BL \leq 50-3\sigma < X < 150+3\sigma \leq OL$
Pb	mg/kg	$BL \leq 700-3\sigma < X < 1300+3\sigma \leq OL$	$BL \leq 700-3\sigma < X < 1300+3\sigma \leq OL$	$BL \leq 500-3\sigma < X < 1500+3\sigma \leq OL$

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 4 of 14

Hg	mg/kg	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 700 - 3\sigma < X < 1300 + 3\sigma \leq OL$	$BL \leq 500 - 3\sigma < X < 1500 + 3\sigma \leq OL$
Cr	mg/kg	$BL \leq 700 - 3\sigma < X$	$BL \leq 700 - 3\sigma < X$	$BL \leq 500 - 3\sigma < X$
Br	mg/kg	$BL \leq 300 - 3\sigma < X$	--	$BL \leq 250 - 3\sigma < X$

Note:

BL = Below Limit

OL = Over Limit

X = Inconclusive

NA = Not Applicable

- (2) The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
- (3) The maximum permissible limit is quoted from the document 2011/65/EU and its amendment directives (EU) 2015/863 :

RoHS Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous Results)
Cadmium (Cd)	100
Lead (Pb)	1000
Mercury (Hg)	1000
Hexavalent Chromium (Cr(VI))	1000
Polybrominated biphenyls (PBBs)	1000
Polybrominated diphenyl ethers (PBDEs)	1000

(4) Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes. The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.

- (5) The selection of test portions was recommended by the client and the conclusion of chemical test is only for the selected portions.

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 5 of 14

1.2 Hexavalent Chromium (Cr(VI))

Metal: IEC 62321-7-1:2015, extracted by boiling water and analyzed by UV-Vis

Non-metal: IEC 62321-7-2:2017, alkaline digested and analyzed by UV-Vis

Test Item(s)		Result				Limit	MDL
		7	17	26	45		
1	Hexavalent Chromium (Cr(VI))	Negative	Negative	Negative	Negative	#	-
-	Conclusion	PASS	PASS	PASS	PASS	-	-

Remark(s) (a) ug/cm²: microgram per square centimeter

(b) MDL: Method detected limit

(c) Negative = Sample Cr(VI) concentration is less than 0.10 ug/cm²

Positive = Sample Cr(VI) concentration is greater than 0.13 ug/cm²

(d) # = Positive indicates the presence of Cr(VI) on the tested areas and result be regarded as conflict with RoHS requirement.

Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as no conflict with RoHS requirement.

1.3 Cadmium Content (Cd)

IEC62321-5:2013, acid digested and determined by AAS

Test Item(s)		Result	Limit (mg/kg)	MDL (mg/kg)
		27		
1	Cadmium (Cd)	N.D.	100	10
-	Conclusion	PASS	-	-

Remark(s): (a) mg/kg: milligrams per kilogram

(b) MDL: Method detected limit

(c) N.D.: Not detected (result is less than MDL)

1.4 Polybrominated Biphenyls and Polybrominated Diphenyl Ethers (PBBs and PBDEs)

IEC 62321-6:2015, solvent extract and determined by GC-MS

Test Item(s)		Result	Limit (mg/kg)	MDL (mg/kg)
		19		
1	Monobromo biphenyl	N.D.	-	50
2	Dibromo biphenyl	N.D.	-	50
3	Tribromo biphenyl	N.D.	-	50
4	Tetrabromo biphenyl	N.D.	-	50

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 6 of 14

5	Pentabromo biphenyl	N.D.	-	50
6	Hexabromo biphenyl	N.D.	-	50
7	Heptabromo biphenyl	N.D.	-	50
8	Octabromo biphenyl	N.D.	-	50
9	Nonabromo biphenyl	N.D.	-	50
10	Decabromo biphenyl	N.D.	-	50
11	Monobromo diphenyl ether	N.D.	-	50
12	Dibromo diphenyl ether	N.D.	-	50
13	Tribromo diphenyl ether	N.D.	-	50
14	Tetrabromo diphenyl ether	N.D.	-	50
15	Pentabromo diphenyl ether	N.D.	-	50
16	Hexabromo diphenyl ether	N.D.	-	50
17	Heptabromo diphenyl ether	N.D.	-	50
18	Octabromo diphenyl ether	N.D.	-	50
19	Nonabromo diphenyl ether	N.D.	-	50
20	Decabromo diphenyl ether	N.D.	-	50
-	Sum of PBBs	N.D.	1000	-
-	Sum of PBDEs	N.D.	1000	-
-	Conclusion	PASS	-	-

Remark(s): (a) mg/kg: milligram per kilogram
 (b) MDL: Method detected limit
 (c) N.D.: Not detected (result is less than MDL)

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 7 of 14

1.5 Phthalates – (DBP, BBP, DEHP, DIBP) IEC 62321-8:2017, Solvent extract and determined by GC-MS

Test Item(s)			Result				Limit (%)	MDL(%)
			2	4	5+8	6+9+10		
1	DBP	Dibutylphthalate CAS# 84-74-2	N.D.	N.D.	N.D.	N.D.	0.1	0.005
2	BBP	Benzylbutylphthalate CAS# 85-68-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
3	DEHP	Diethylhexylphthalate CAS# 117-81-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
4	DIBP	Diisobutyl phthalate CAS# 84-69-5	N.D.	N.D.	N.D.	N.D.	0.1	0.005
-	Conclusion		PASS	PASS	PASS	PASS	-	-

Test Item(s)			Result				Limit (%)	MDL(%)
			12+13	14	18+19+23	21		
1	DBP	Dibutylphthalate CAS# 84-74-2	N.D.	N.D.	N.D.	N.D.	0.1	0.005
2	BBP	Benzylbutylphthalate CAS# 85-68-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
3	DEHP	Diethylhexylphthalate CAS# 117-81-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
4	DIBP	Diisobutyl phthalate CAS# 84-69-5	N.D.	N.D.	N.D.	N.D.	0.1	0.005
-	Conclusion		PASS	PASS	PASS	PASS	-	-

Test Item(s)			Result				Limit (%)	MDL(%)
			22	24+25	28+31	33		
1	DBP	Dibutylphthalate CAS# 84-74-2	N.D.	N.D.	N.D.	N.D.	0.1	0.005
2	BBP	Benzylbutylphthalate CAS# 85-68-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
3	DEHP	Diethylhexylphthalate CAS# 117-81-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
4	DIBP	Diisobutyl phthalate CAS# 84-69-5	N.D.	N.D.	N.D.	N.D.	0.1	0.005
-	Conclusion		PASS	PASS	PASS	PASS	-	-

TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 8 of 14

Test Item(s)			Result				Limit (%)	MDL(%)
			36	37	38+39	40		
1	DBP	Dibutylphthalate CAS# 84-74-2	N.D.	N.D.	N.D.	N.D.	0.1	0.005
2	BBP	Benzylbutylphthalate CAS# 85-68-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
3	DEHP	Diethylhexylphthalate CAS# 117-81-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
4	DIBP	Diisobutyl phthalate CAS# 84-69-5	N.D.	N.D.	N.D.	N.D.	0.1	0.005
-	Conclusion		PASS	PASS	PASS	PASS	-	-

Test Item(s)			Result				Limit (%)	MDL(%)
			41	42	44	46		
1	DBP	Dibutylphthalate CAS# 84-74-2	N.D.	N.D.	N.D.	N.D.	0.1	0.005
2	BBP	Benzylbutylphthalate CAS# 85-68-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
3	DEHP	Diethylhexylphthalate CAS# 117-81-7	N.D.	N.D.	N.D.	N.D.	0.1	0.005
4	DIBP	Diisobutyl phthalate CAS# 84-69-5	N.D.	N.D.	N.D.	N.D.	0.1	0.005
-	Conclusion		PASS	PASS	PASS	PASS	-	-

Remark(s): (a) MDL: Method detected limit
(b) N.D.: Not detected (result is less than MDL)

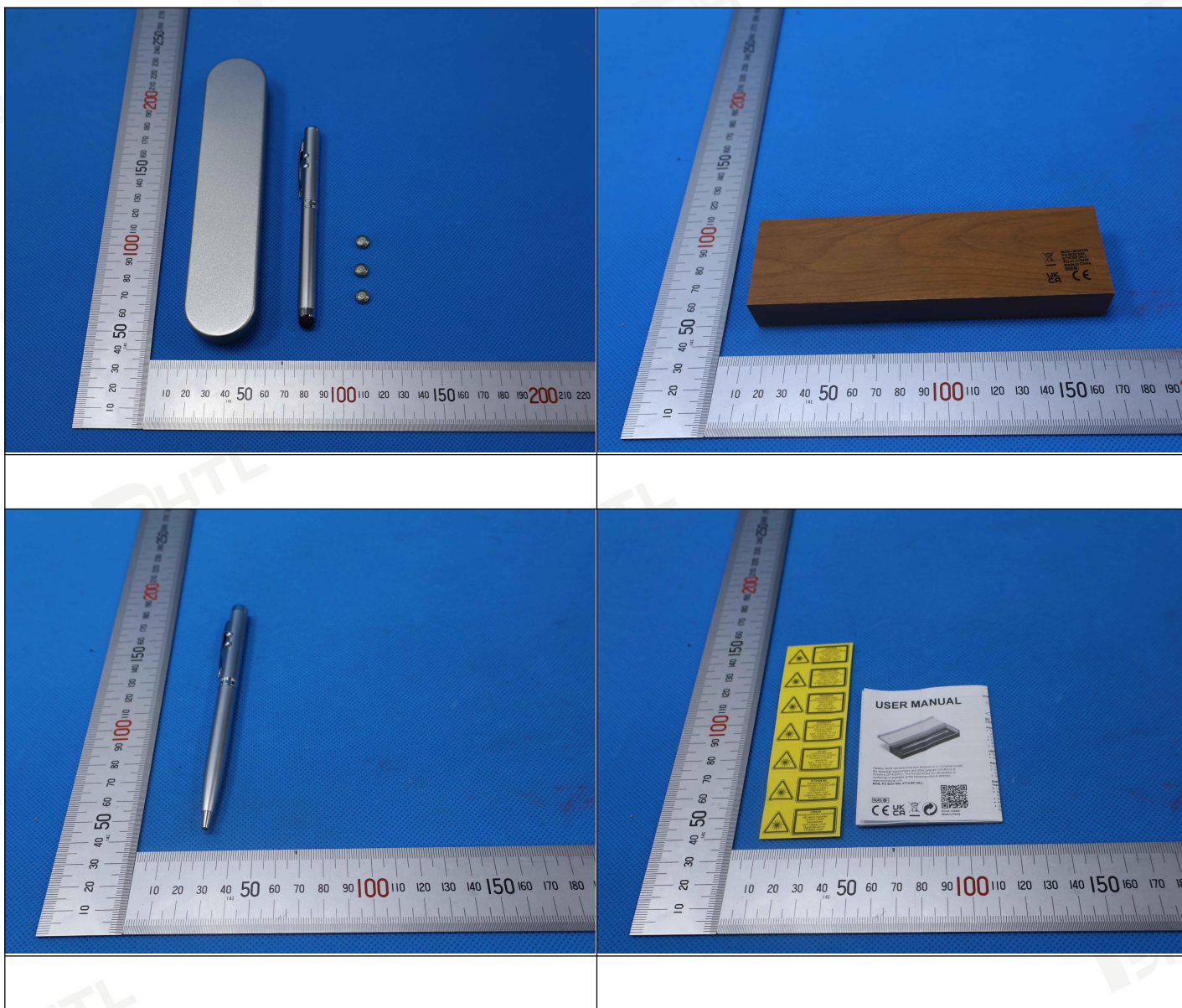
TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 9 of 14

Photo(s):

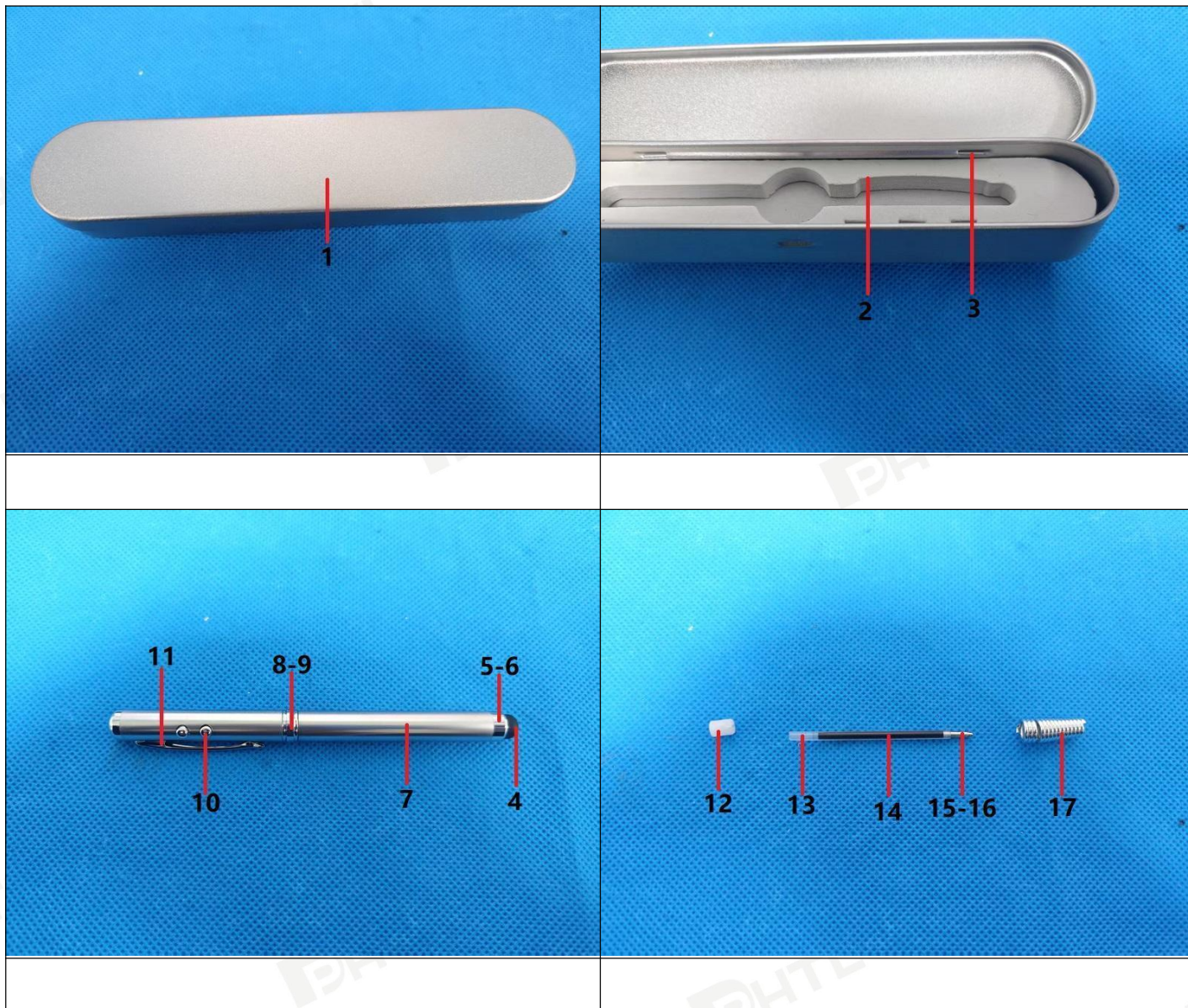


TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 10 of 14

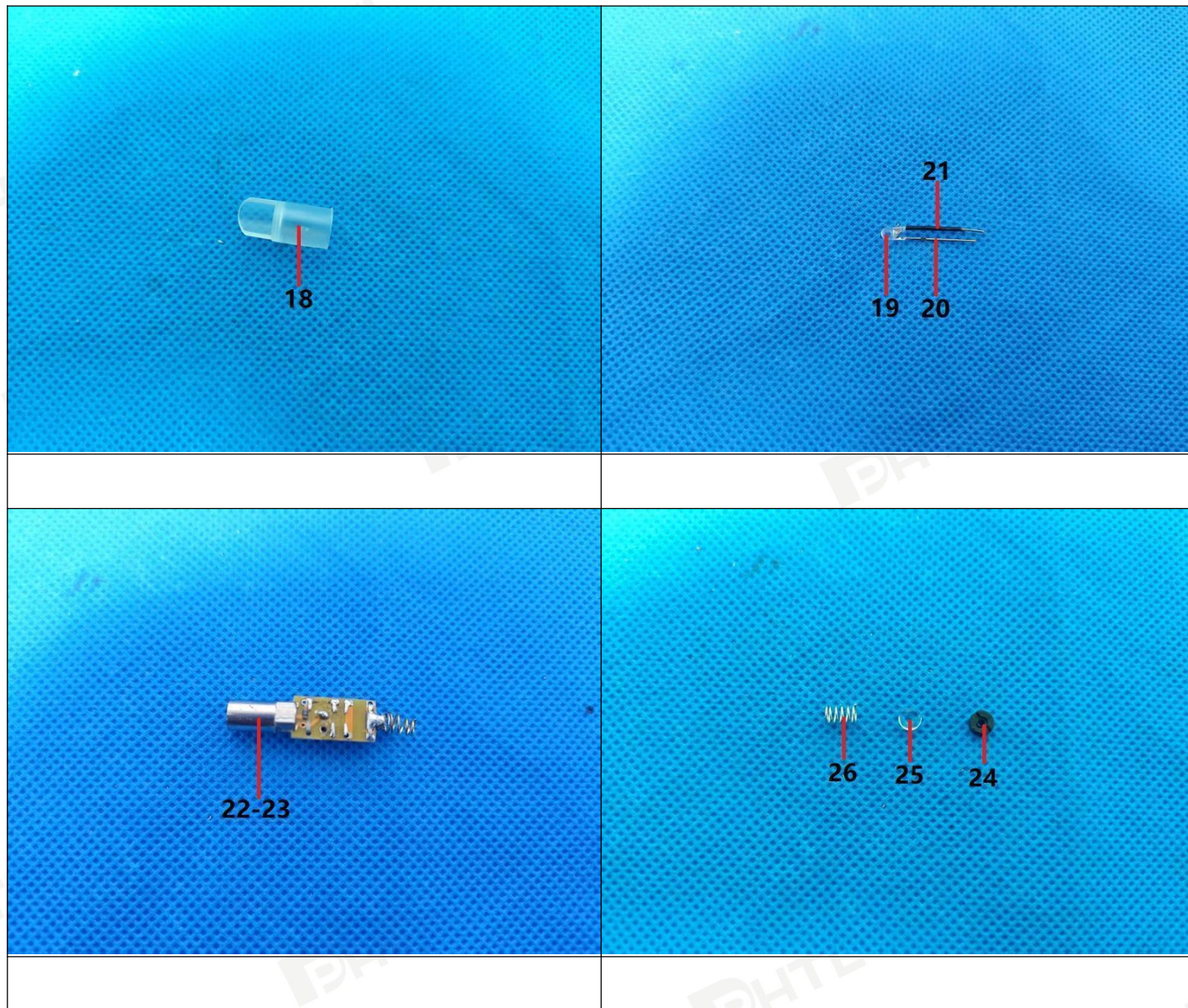


TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 11 of 14

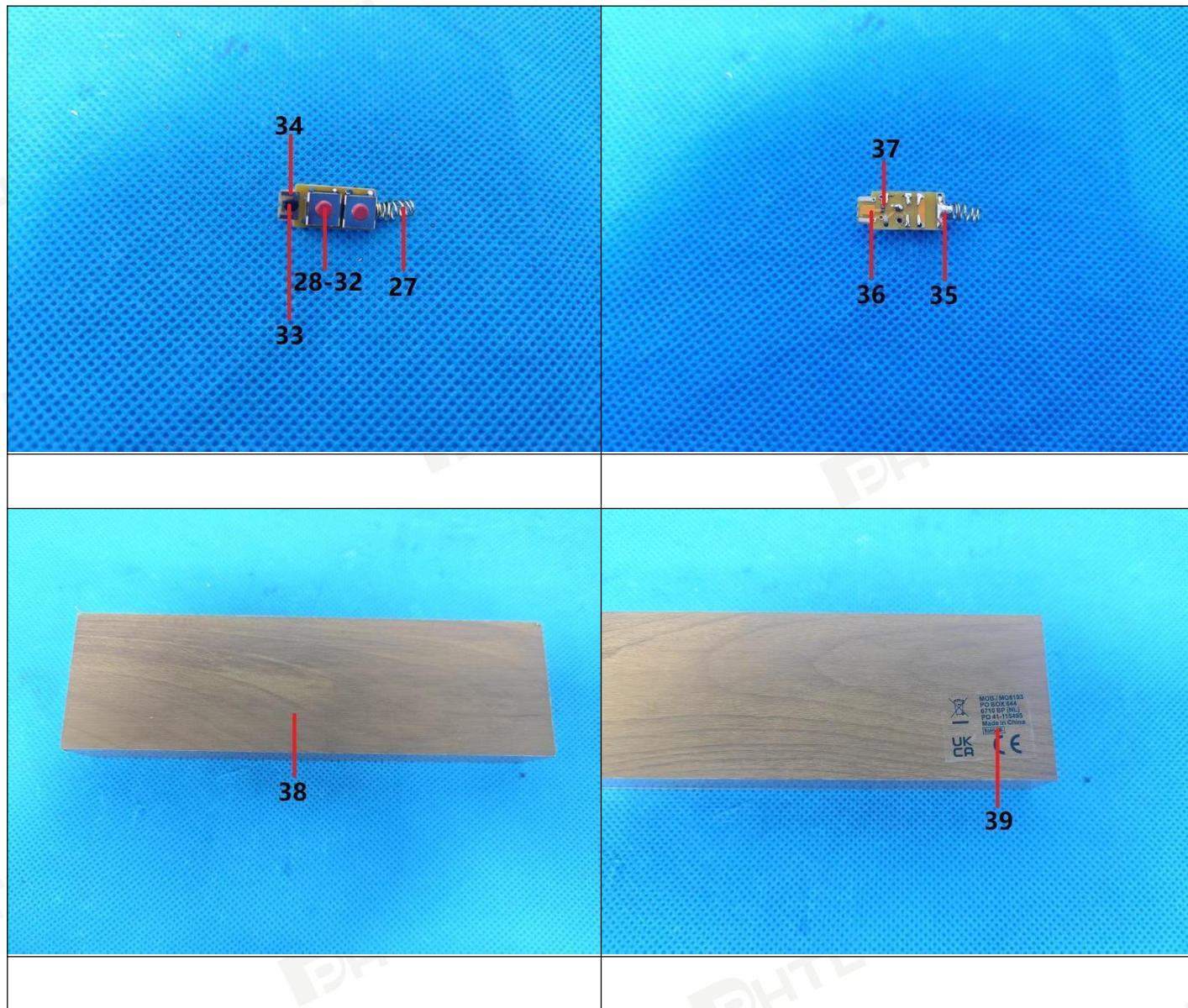


TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 12 of 14

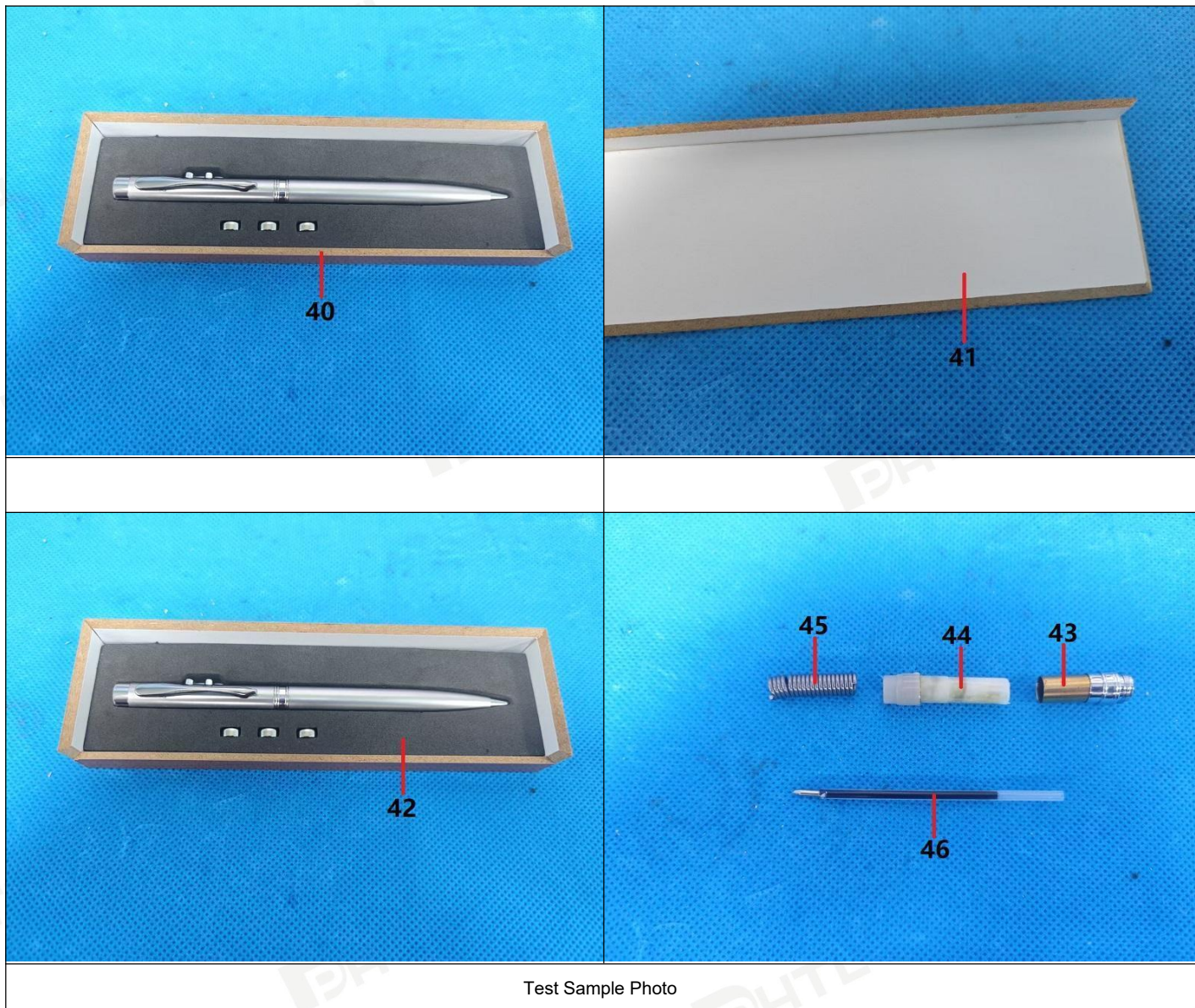


TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 13 of 14

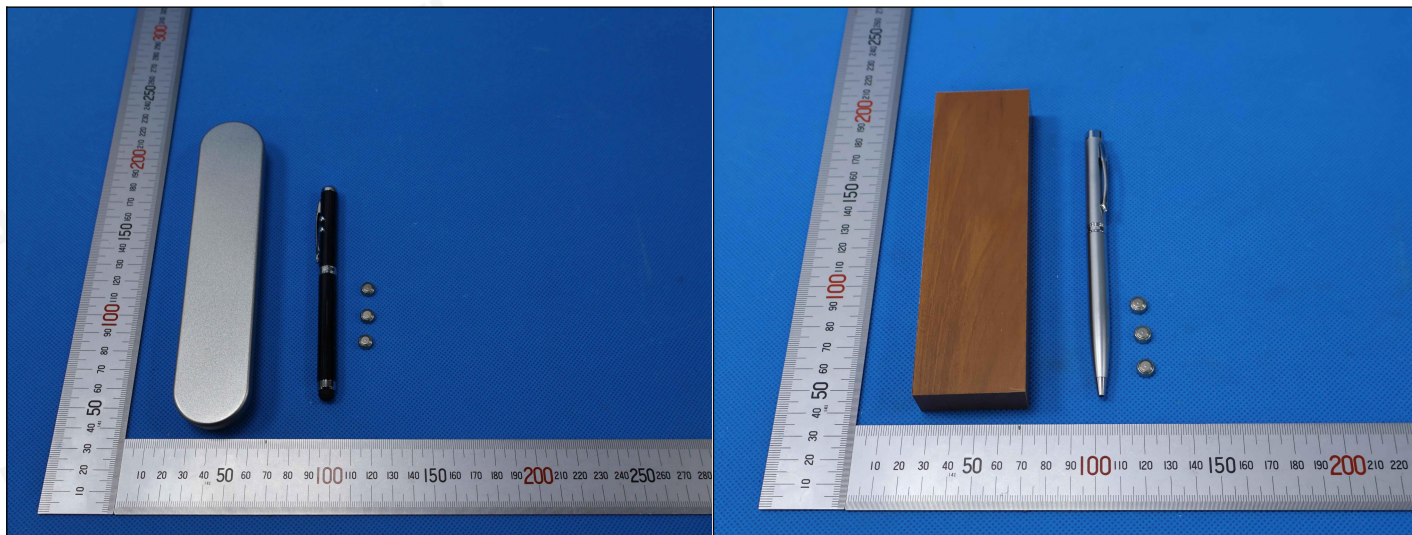


TEST REPORT

Report No.: DPHTL2503073024E

Date: Apr 10,2025

Page 14 of 14



Product Photo, For reference only

<<<<< END OF REPORT >>>>>

声明 Statement

1. 广州市德普华检测技术有限公司(以下简称[DPHTL])为提供符合下述条款的测试和报告,而接受有关样品和货品。本公司基于下述条款提供服务,下述条款为本公司与申请服务的个人、企业或公司(以下简称[客户])的协议。
All samples and goods are accepted by the Guangzhou Depuhua Test Services Co., Ltd. (the "DPHTL") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the Company and any person, firm or company requesting its services (the "Clients").
2. 由此测试申请所发出的任何报告(以下简称[报告]),本公司会严格为客户保密。未经本公司的书面同意,报告的整体或部分不得复制,也不得用于广告或授权的其他用途。然而,客户可以将本公司印制的报告或认可的副本,向其客户、供货商或直接相关的其它人出示或提交。除非相关政府部门、法律或法规要求,否则未经客户同意,本公司不得将报告内容向任何第三方讨论或披露。
Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court order.
3. 本公司接受样品进行测试的前提是,该测试报告不能作为针对本公司法律行动的依据。
Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
4. 本检测报告首页所列信息中除样品来源、接样日期、检测日期、检测结果和检测结论外,均由委托方提供,委托方对样品的代表性和资料的真实性负责,本实验室不承担任何相关责任。
The information as listed on the first page of this test report was all provided by the client except the sample from, date received, test period, test results and test conclusion. The client shall be responsible for the representativeness of sample and authenticity of materials, for which DPHTL shall bear no responsibilities.
5. 本检测报告以实测值进行符合性判定,未考虑不确定度所带来的风险,特别约定、标准或规范中有明确规定的除外。此种判定方式所带来的风险由客户自行承担,本实验室不承担相关责任。
The judgment method of determining the conformity in this test report is according to the measured value without considering the risk caused by uncertainty, unless otherwise clearly stipulated in special agreement, standard or specification. The client shall assume the risk caused by the judgment method, and DPHTL shall not bear related responsibilities.
6. 检测报告无批准人签字及“检验检测专用章”无效,未经本实验室书面同意,不得整体或部分复制本报告。
The test report is effective only with both signature and specialized stamp. Without written approval of DPHTL, this report can't be reproduced in full or in part.
7. 除非本公司进行抽样,并已在报告中说明,否则报告中适用于送测的样品(样品信息为客户提供),不适用于批量。
The Report refers only to the tested sample (Sample information is provided by customer) and does not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
8. 本检测报告的检测结果仅对送测样品负责,未加盖资质认定标志的检测报告不对社会具有公证证明作用,对于检测数据、结果的使用,所产生的直接或间接损失及一切法律后果,本实验室不承担任何经济和法律责任。
This test data is only responsible for the tested sample. The data and results provided by the report without CMA accreditation are not to prove to the society, and DPHTL is not responsible for any economic and legal responsibility for the use of the test data, the direct or indirect losses resulting from the use of the test and all legal consequences.
9. 如果本公司确定报告被不当使用,本公司保留撤回报告的权利,并有权要求其它适当的额外赔偿。
In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
10. 除非相关政府部门、法律或法院要求,否则未经公司预先书面同意,本公司毋需,也并无义务到法院对有关报告作证。
The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
11. 若需要在法院审理程序或者仲裁过程中使用测试报告,客户必须在提交测试样品前将该意图告知本公司。
Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
12. 该测试报告的支持数据和信息本公司保存6年。个别评审机构有特别要求的,检测数据和报告的保存期可依情况变动。一旦超过上述提交的存期限,数据和信息将被处理掉。任何情况下,本公司不必提供任何被处理的过期数据或信息。即使本公司事先被告知可能会发生相关的损害,本公司在任何情况下也不必承担任何损害,包括(但不限于)补偿性赔偿、利润损失、数据遗失、或任何形式的特殊损害、附带损害、间接损害、从属损害或任何违反约定、违反承诺、侵权(包括疏忽)、产品责任或其他原因的惩罚性损害。
Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of 6 years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.