检测报告
Test Report

报告编号 A2220543624101001E
Report No. A2220543624101001E

报告抬头公司名称	东莞市容巨机电有限公司
Company Name shown on Report	DONGGUAN RONGJU MACHINERY&ELECTRONIC CO.,LTD
地　　址	广东省东莞市长安镇立基巷 1 号 2 栋 101 室
Address	ROOM 101, BUILDING 2, NO. 1, LIJI LANE, CHANG'AN TOWN, DONGGUAN CITY, GUANGDONG PROVINCE

以下测试之样品及样品信息由申请者提供并确认
The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

样品名称	贴片铝电解电容器
Sample Name	V-CHIP　ALUMINUM ELECTROL CAPACITORS
样品接收日期	2022.12.05
Sample Received Date	Dec. 5, 2022
样品检测日期	2022.12.05-2022.12.09
Testing Period	Dec. 5, 2022 to Dec. 9, 2022

测试内容 Test Conducted:
根据客户的申请要求，具体要求详见下一页。
As requested by the applicant. For details refer to next page(s).

主　检 Tested by	黄伟龙	审　核 Reviewed by	刘琳慧
批　准 Approved by	方理松	日　期 Date	2022.12.09

方理松
授权签字人 Lab Authorized Signatory

No. R262621053

华测检测认证集团股份有限公司
Centre Testing International Group Co.,Ltd.
广东省深圳市宝安区新安街道兴东社区华测检测大楼
CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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测试摘要 Executive Summary:

测试要求 TEST REQUEST	测试结果 CONCLUSION
欧盟持久性有机污染物(POPs)法规(EU) 2019/1021 Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)	
- 多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	见结果页 **See test result(s)**
- 全氟辛烷磺酸(PFOS)及其衍生物 Perfluorooctane sulfonic acid (PFOS) and its derivatives	见结果页 **See test result(s)**
- 六溴环十二烷 Hexabromocyclododecane (HBCDD)	见结果页 **See test result(s)**
- 短链氯化石蜡 Short Chain Chlorinated Paraffins (SCCPs)	见结果页 **See test result(s)**
- 五氯苯 Pentachlorobenzene	见结果页 **See test result(s)**
- 六氯苯 Hexachlorobenzene	见结果页 **See test result(s)**
- 六溴联苯 Hexabromobiphenyl	见结果页 **See test result(s)**
- 多氯联苯 Polychlorinated Biphenyls(PCBs)	见结果页 **See test result(s)**
- 多氯化萘 Polychlorinated Naphthalenes (PCNs)	见结果页 **See test result(s)**
- 六氯丁二烯 Hexachlorobutadiene (HCBD)	见结果页 **See test result(s)**
- 五氯苯酚及其盐和酯 Pentachlorophenol and its salts and esters	见结果页 **See test result(s)**
- 全氟辛酸(PFOA)及其盐 Perfluorooctanoic acid (PFOA) and its salts	见结果页 **See test result(s)**
- 全氟辛酸类相关物质 Perfluorooctanoic acid related substances	见结果页 **See test result(s)**

**********详细结果，请见下页**********

********** For further details, please refer to the following page(s) **********

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欧盟持久性有机污染物(POPs)法规(EU) 2019/1021 Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)

▼**多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)**

使用方法 IEC 62321-6:2015，通过 GC-MS 分析。

Method(s) IEC 62321-6:2015 was/were used, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)
	001	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5
十溴二苯醚 Decabromodiphenyl ether	N.D.	5

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼**全氟辛烷磺酸(PFOS)及其衍生物 Perfluorooctane sulfonic acid (PFOS) and its derivatives***

使用方法 CEN/TS 15968:2010，通过 LC-MS-MS 分析。

Method(s) CEN/TS 15968:2010 was/were used, and the item(s) was/were analyzed by LC-MS-MS.

测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
		001		
全氟辛烷磺酸 Perfluorooctane sulfonic acid (PFOS) ▲	--	N.D.	0.010	--
全氟辛基磺酰胺 Perfluorooctane sulfonamide (PFOSA)	754-91-6	N.D.	0.010	--
氟虫胺 N-Ethylperfluoro-1-octanesulfonamide (N-Et-FOSA)	4151-50-2	N.D.	0.050	--
1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-N-甲基-辛磺酰胺 N-Methylperfluoro-1-octanesulfonamide (N-Me-FOSA)	31506-32-8	N.D.	0.050	--
N-乙基全氟辛基磺酰胺乙醇 2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol (N-Et-FOSE)	1691-99-2	N.D.	0.050	--
1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-十七氟-N-(2-羟乙基)-N-甲基-1-辛基磺酰胺 2-(N-Methylperfluoro-1-octanesulfonamido)-ethanol (N-Me-FOSE)	24448-09-7	N.D.	0.050	--
总和 Total	--	N.D.	--	1000

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备注 Remark:

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- mg/kg = ppm = 百万分之一 parts per million
- 1000 mg/kg = 0.1%
- ▲全氟辛烷磺酸(PFOS)包含 Perfluorooctane sulfonic acid (PFOS) contains:

物质名称 Substance Name(s)	CAS No.
全氟辛烷磺酸 Perfluorooctane Sulfonates (PFOS)	1763-23-1
全氟辛基磺酸钾 Perfluorooctanesulfonic acid, potassium salt (PFOS-K)	2795-39-3
全氟正辛基磺酸锂 Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5
全氟辛基磺酸铵 Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH_4)	29081-56-9
十七氟代-1-辛磺酸与二乙醇胺的化合物 Perfluorooctane sulfonate diethanolamine salt (PFOS-$NH(OH)_2$)	70225-14-8
全氟辛基磺酸四乙基胺 Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-$N(C_2H_5)_4$)	56773-42-3
全氟辛基磺酸二癸二甲基铵 Didecyl dimethyl ammonium perfluorooctane sulfonate (PFOS-DDA)	251099-16-8
全氟辛基磺酰氟 Perfluoro-1-octanesulfonyl fluoride (PFOSF)	307-35-7

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▼六溴环十二烷 Hexabromocyclododecane (HBCDD)

参考方法 US EPA 3540C:1996 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3540C:1996 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
		001		
六溴环十二烷 Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	N.D.	5	100

备注 Remark:

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- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million
- “六溴环十二烷(HBCDD)”指：六溴环十二烷(HBCDD)、1,2,5,6,9,10-六溴环十二烷及其非对映异构体(α-HBCDD, β-HBCDD, γ-HBCDD)
  ‘Hexabromocyclododecane (HBCDD)’ means: Hexabromocyclododecane (HBCDD), 1,2,5,6,9,10-hexabromocyclododecane and its main diastereoisomers: α-HBCDD, β-HBCDD, γ-HBCDD

▼短链氯化石蜡 Short Chain Chlorinated Paraffins (SCCPs)

参考方法 US EPA 3540C:1996 & US EPA 8270E:2018，通过 GC-MS(NCI)分析。

Refer to method(s) US EPA 3540C:1996 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS(NCI).

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
短链氯化石蜡 Short Chain Chlorinated Paraffins (SCCPs)	N.D.	100	1500

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼**五氯苯 Pentachlorobenzene***

参考方法 US EPA 3550C:2007 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
五氯苯 Pentachlorobenzene	N.D.	5	N.D.

备注 Remark:
- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

▼**六氯苯 Hexachlorobenzene***

参考方法 US EPA 3550C:2007 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
六氯苯 Hexachlorobenzene	N.D.	5	10

备注 Remark:
- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼**六溴联苯 Hexabromobiphenyl**

使用方法 IEC 62321-6:2015，通过 GC-MS 分析。

Method(s) IEC 62321-6:2015 was/were used, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
六溴联苯 Hexabromobiphenyl	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

▼**多氯联苯 Polychlorinated Biphenyls(PCBs)**

参考方法 US EPA 3540C:1996 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3540C:1996 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
多氯联苯 Polychlorinated Biphenyls(PCBs)	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼多氯化萘 Polychlorinated Naphthalenes (PCNs)

参考方法 US EPA 3540C:1996 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3540C:1996 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
多氯化萘 Polychlorinated Naphthalenes (PCNs)	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

▼六氯丁二烯 Hexachlorobutadiene (HCBD)*

参考方法 US EPA 3550C:2007 & US EPA 8270E:2018，通过 GC-MS 分析。

Refer to method(s) US EPA 3550C:2007 & US EPA 8270E:2018, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
六氯丁二烯 Hexachlorobutadiene	N.D.	5	N.D.

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million

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▼**五氯苯酚及其盐和酯 Pentachlorophenol and its salts and esters***

参考方法 ISO 17070:2015，通过 GC-MS 分析。

Refer to method(s) ISO 17070:2015, and the item(s) was/were analyzed by GC-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
五氯苯酚及其盐和酯 Pentachlorophenol and its salts and esters	N.D.	1	5

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million
- 五氯苯酚及其盐和酯的结果以五氯苯酚计。
  The test result of Pentachlorophenol and its salts and esters is calculated by Pentachlorophenol.

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▼**全氟辛酸(PFOA)及其盐 Perfluorooctanoic acid (PFOA) and its salts***

使用方法 CEN/TS 15968:2010，通过 LC-MS-MS 分析。

Method(s) CEN/TS 15968:2010 was/were used, and the item(s) was/were analyzed by LC-MS-MS.

测试项目 Tested Item(s)	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
	001		
全氟辛酸(PFOA)及其盐 Perfluorooctanoic acid (PFOA) and its salts	N.D.	0.010	0.025

备注 Remark:

- MDL = 方法检出限 Method Detection Limit
- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million
- 全氟辛酸(PFOA)及其盐包含 Perfluorooctanoic acid (PFOA) and its salts contains:

物质名称 Substance Name(s)	CAS No.
全氟辛酸 Perfluorooctanoic acid (PFOA)	335-67-1
全氟辛酸铵 Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
全氟辛酸钠 Sodium perfluorooctanoate (PFOA-Na)	335-95-5
全氟辛酸钾 Potassium perfluorooctanoate (PFOA-K)	2395-00-8
全氟辛酸银 Silver perfluorooctanoate (PFOA-Ag)	335-93-3
全氟辛氟 Perfluorooctanoyl fluoride (PFOA-F)	335-66-0

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▼**全氟辛酸类相关物质 Perfluorooctanoic acid related substances***

使用方法 CEN/TS 15968:2010，通过 LC-MS-MS & GC-MS 分析。

Method(s) CEN/TS 15968:2010 was/were used, and the item(s) was/were analyzed by LC-MS-MS & GC-MS.

测试项目 Tested Item(s)	CAS No.	结果 Result (mg/kg)	方法检出限 MDL (mg/kg)	限值 Limit (mg/kg)
		001		
全氟辛酸甲酯 Methyl perfluorooctanoate (Me-PFOA)	376-27-2	N.D.	0.010	1
全氟辛酸乙酯 Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	N.D.	0.010	1
全氟正辛基碘烷 Perfluorooctyl iodide (PFOI)	507-63-1	N.D.	0.500	1
1H,1H,2H,2H-全氟癸基三乙氧基硅烷 1H,1H,2H,2H-Perfluorodecyltriethoxysilane (PFSI)	101947-16-4	N.D.	0.500	1
1H,1H,2H,2H-全氟-1-癸醇 1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7	N.D.	0.500	1
1-碘-1H,1H,2H,2H-全氟癸烷 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-Heptadecafluoro-10-iododecane (8:2 FTI)	2043-53-0	N.D.	0.500	1
1H,1H,2H,2H-全氟癸磺酸 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	N.D.	0.500	1
丙烯酸 1H,1H,2H,2H-十七氟癸酯 1H,1H,2H,2H-Heptadecafluorodecyl acrylate (8:2 FTAC)	27905-45-9	N.D.	0.500	1
2-(全氟辛基)乙基甲基丙烯酸酯 1H,1H,2H,2H- Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	N.D.	0.500	1
双(2-(全氟乙基))磷酸 8:2 Fluorotelomer phosphate diester (8:2diPAP)	678-41-1	N.D.	0.500	1
总和 Total	--	N.D.	--	1

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- N.D. = 未检出 Not Detected (小于方法检出限 <MDL)
- mg/kg = ppm = 百万分之一 parts per million
- 所列测试项目为全氟辛酸类相关物质的代表性物质。The tested items listed in the table are the representative substances for Perfluorooctanoic acid related substances.

样品/部位描述 Sample/Part Description

001 所有部件混测（非金属） Mixed test, all parts(Nonmetal)

注释 Note:

-*表示该项目/方法不在 CNAS 认可范围内。
indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.
-根据客户要求，对样品进行混合测试，测试结果不代表混合测试样品中任何一种单一材质的含量。
As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.
-本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。
The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

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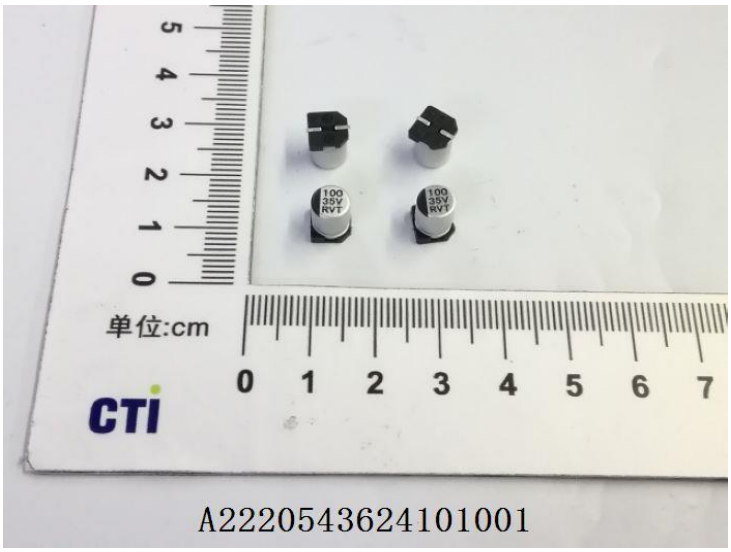
样品图片

Photo(s) of the sample(s)



声明 Statement：

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效；
   This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 报告抬头公司名称及地址、样品及样品信息由申请者提供，申请者应对其真实性负责，CTI 未核实其真实性；
   The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn’t verified;
3. 本报告检测结果仅对受测样品负责；
   The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 未经 CTI 书面同意，不得部分复制本报告；
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5. 如检测报告中的英文内容与中文内容有差异，以中文为准。
   In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***
*** End of Report ***

附录 Appendix

客户参考信息 Client Reference Information

样品序号 Sample No.	客户参考信息 Client Reference Information
001	RVT 100UF/35V 6.3*7.7

声明 Statement:

1. 附录内容由申请者提供，申请者应对其真实性负责，CTI 未核实其真实性。
   The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. 附录内容为 A2220543624101001E 报告的补充。
   The Appendix Information is/are the supplement(s) for the Report A2220543624101001E.