

检测报告 编号: TAOEC2206980012 日期: 2022年10月17日 第1页,共11页

客户名称: 济南汇丰中天电子科技有限公司

客户地址: 济南市高新区飞跃大道2016号创新工场F1/F3

样品名称: 玻封二极管

型号: LL34

客户参考信息: DO-35, DO-34, DO-41G, LL34(MINI-MELF), LL41 (MELF)

以上样品及信息由客户提供。

SGS工作编号: QP22-005818 - QD

样品接收日期: 2022年09月26日

检测周期: 2022年09月26日 - 2022年10月14日

检测要求: 根据客户要求检测 检测方法: 请参见下一页 检测结果: 请参见下一页

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Wang Bo, Claire 王渤 批准签署人





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检测结果:

#### 检测样品描述:

样品编号 SGS样品ID 描述

SN1 TAO22-069800.001 带有银色金属和透明玻璃的的橙色本体(混测)

#### 备注:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 ( < MDL )
- (4) "-" = 未规定

欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863-铅, 汞, 镉, 六价铬, 多溴联苯(PBBs), 多溴二苯 醚(PBDEs), 邻苯二甲酸二丁酯 (DBP), 邻苯二甲酸丁苄酯(BBP), 邻苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲 酸二异丁酯(DIBP)

检测方法: 参考IEC 62321-5:2013,IEC 62321-4:2013+AMD1:2017, IEC 62321-7-2:2017, IEC 62321-6:2015和IEC 62321-8:2017, 采用ICP-OES, UV-Vis和GC-MS进行分析.

<u>检测项目</u>	限值	<u>单位</u>	<u>MDL</u>	<u>001</u>
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	201879▲
汞(Hg)	1000	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND



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检测项目	限值	<u>单位</u>	<u>MDL</u>	<u>001</u>
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

#### 备注:

- (1)最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列
- (3) 2021年7月22号开始,DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械,包括体外医疗器械,监控仪表,包括工业监测和控制仪器。
- (4)采用IEC 62321-7-1:2015 沸水萃取法核查检测样品未检出六价铬。
- (5)样品的检测是基于申请人要求混合检测,报告中的混合检测结果不代表其中个别单一材质的含量,该检测数据仅供参考。
- (6) ▲根据客户提供的声明,编号001中的铅(Pb)被欧盟RoHS指令2011/65/EU豁免,相应豁免条文(请以英文原文为准) |ANNEX III 7(c)-I|: 电子电气元件中玻璃或陶瓷材料(电容中陶瓷介质除外)所含的铅,如压电设备、玻璃或陶瓷基复合元件。

### 卤素

检测方法: 参照EN 14582: 2016方法测定, 采用 IC进行分析.

检测项目	单位	<u>MDL</u>	<u>001</u>
氟(F)	mg/kg	50	ND
氯(CI)	mg/kg	50	ND
溴(Br)	mg/kg	50	ND
碘(I)	mg/kg	50	ND

#### 备注:

-样品的检测是基于申请人要求混合检测,报告中的混合检测结果不代表其中个别单一材质的含量,该检测数据仅供参考。

### 全氟辛烷磺酸(PFOS)及其衍生物和全氟辛酸(PFOA)及其盐

检测方法: 参照CEN/TS 15968:2010 方法, 采用LC-MS-MS检测.



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检测方法: 参照CEN/TS 15968:2010 方法, 采用LC-MS-MS检测.

检测项目	CAS NO.	<u>单位</u>	<u>MDL</u>	<u>001</u>
全氟辛烷磺酸(PFOS)及衍生物	-	mg/kg	-	ND
全氟辛烷磺及其衍生物 (PFOS) <sup>^</sup>	1763-23-1	mg/kg	0.010	ND
N-乙基全氟辛烷磺酰胺(EtFOSA)	4151-50-2	mg/kg	0.010	ND
2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE)	1691-99-2	mg/kg	0.010	ND
N-甲基全氟辛烷磺酰胺(MeFOSA)	31506-32-8	mg/kg	0.010	ND
2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)	24448-09-7	mg/kg	0.010	ND
全氟辛基磺酰胺(PFOSA)	754-91-6	mg/kg	0.010	ND
全氟辛酸(PFOA)及其盐+		mg/kg	0.010	ND

#### 备注:

- (1) ^全氟辛烷磺酸是指其酸、盐/衍生物,包括全氟辛烷磺酸(CAS No.: 1763-23-1),全氟辛基磺酸钾 (CAS No.: 2795-39-3), 全氟辛基磺酸锂 (CAS No.: 29457-72-5),全氟辛基磺酸铵 (CAS No.: 29081-56-9),全氟辛烷磺酸二乙醇胺 (CAS No.: 70225-14-8),全氟辛烷磺酸四乙铵 (CAS No.: 56773-42-3),全氟辛基磺酸二癸二甲基铵(CAS No.:251099-16-8) 和全氟辛基磺酰氟(CAS No.: 307-35-7)。
- (2) PFOA及其盐+是指其酸/盐,包括全氟辛酸(CAS No.: 335-67-1),全氟辛酸钠 (CAS No.: 335-95-5),全氟辛酸钾 (CAS No.: 2395-00-8),全氟辛酸银 (CAS No.: 335-93-3),全氟辛酰氟 (CAS No.: 335-66-0)和全氟辛酸铵 (CAS No.: 3825-26-1)。
- **(3)**样品的检测是基于申请人要求混合检测,报告中的混合检测结果不代表其中个别单一材质的含量,该检测数据仅供参考。

除非另有说明,参照ILAC-G8:09/2019,使用简单接受(w=0)的二元判定规则进行符合性判定。除非另有说明,此报告结果仅对检测的样品负责。本报告未经本公司书面许可,不可部分复制。检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的,仅供内部参考。



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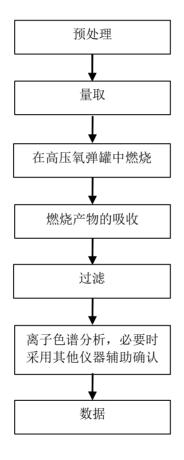
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附件

## 卤素检测流程图





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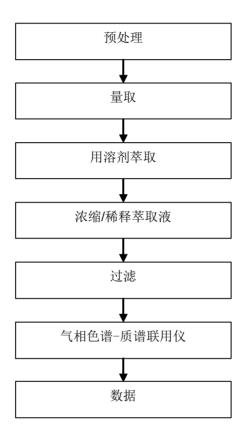
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## PBBs/PBDEs 检测流程图





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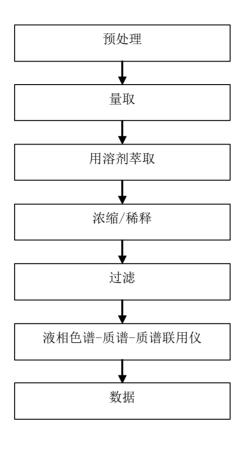
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## PFOS/PFOA 检测流程图





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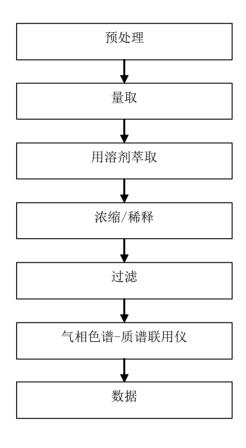
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## Phthalates 检测流程图





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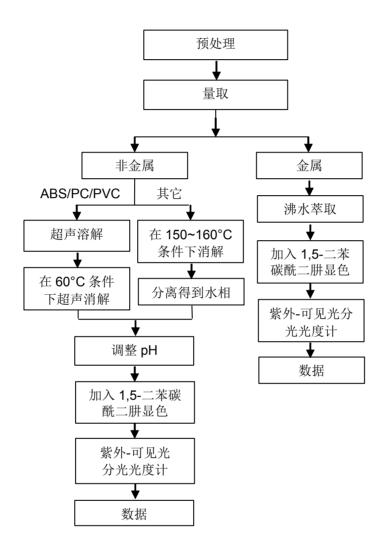
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附件

## 六价铬检测流程图





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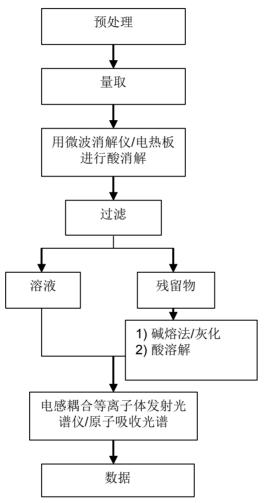
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附件

# 元素(IEC62321) 检测流程图

1)样品按照下述流程被完全消解





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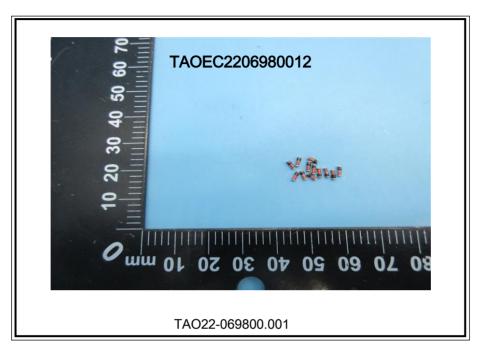


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