



检测报告 编号: SHAEC23018967806 日期: 2023年11月24日 第1页,共12页

客户名称: 苏州奥美材料科技有限公司

客户地址: 中国苏州高新区华山路 158-30 号

样品名称: 聚碳酸酯薄膜及片材

型号: G11

客户参考信息: G11,LSC11, G11B, SB11, SG11, FG11, G11-R, G11-BU, G11W, FG(a),

LSC(a), EHF(a), OMR(a)-UV, C71-A, C71-B, C71-C, ST(a), OM(a)-

UV,G(a)W,G11B, IMD11, LCD11, LCD41, LCD61, LCD11B, T11, UV11, SR11,

LC11, LC21, LC32, LC42, LC21B, LC11B, LC32B, LC21W, LC32W,

LC42B,LC42W,G42, G42W,G51, G42F, G21F, G32, G32F, G52, G21, G41, G41F, G21B, G42B, G61, G71, IMD42, IMD41, LD21, LD21W, LD32, LD42, LD42W, LD52W, LD41W, LD21W-F, LD42W-F, T41, T32F, SR42, SR41, SR21.OM(a), BLC(a)(b), GAP(a),G11-N.其中的 a 代表 00-99 数字, 00-99 代表

产品的表面纹理。b代表 000-999 数字, 000-999 代表客户指定。

以上样品及信息由客户提供。

SGS 工作编号: SUP23-002014

样品接收时间: 2023年11月15日

检测周期: 2023年11月15日~2023年11月23日

检测要求: 根据客户要求检测。

检测方法: 见后续页。 检测结果: 见后续页。

检测要求	结论
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-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP)	符合
全氟辛烷磺酸(PFOS)	见检测结果

通标标准技术服务(上海)有限公司 授权签名

检验检测专用章

Jenny Lan 兰柳珍 批准签署人



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检测要求	结论
AfPS GS 2019:01 PAK-多环芳香烃 (PAHs)	见检测结果

检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A1	SHA23-0189678-0001.C001	无色透明片材

备注:

- (1) 1 mg/kg = 1 ppm = 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)

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

检测项目	限值	单位	MDL	A1
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1000	mg/kg	2	ND
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(MonoBB)	-	mg/kg	5	ND
二溴联苯(DiBB)	-	mg/kg	5	ND
三溴联苯(TriBB)	-	mg/kg	5	ND
四溴联苯(TetraBB)	-	mg/kg	5	ND
五溴联苯(PentaBB)	-	mg/kg	5	ND
六溴联苯(HexaBB)	-	mg/kg	5	ND
七溴联苯(HeptaBB)	-	mg/kg	5	ND
八溴联苯(OctaBB)	-	mg/kg	5	ND
九溴联苯(NonaBB)	-	mg/kg	5	ND
十溴联苯(DecaBB)	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚(MonoBDE)	-	mg/kg	5	ND
二溴二苯醚(DiBDE)	-	mg/kg	5	ND
三溴二苯醚(TriBDE)	-	mg/kg	5	ND
四溴二苯醚(TetraBDE)	-	mg/kg	5	ND
五溴二苯醚(PentaBDE)	-	mg/kg	5	ND



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检测项目	限值	单位	MDL	A1
六溴二苯醚(HexaBDE)	-	mg/kg	5	ND
七溴二苯醚(HeptaBDE)	-	mg/kg	5	ND
八溴二苯醚(OctaBDE)	-	mg/kg	5	ND
九溴二苯醚(NonaBDE)	-	mg/kg	5	ND
十溴二苯醚(DecaBDE)	-	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。

全氟辛烷磺酸(PFOS)

检测方法: 参考 NPR CEN/TS 15968:2010, 采用 HPLC-MS 或 LC-MS/MS 进行分析。

检测项目	CAS No.	单位	MDL	A1
全氟辛烷磺酸(PFOS)^	1763-23-1	mg/kg	10	ND

备注:

(1) ^ 全氟辛烷磺酸 (PFOS)包含 PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH4 (CAS No.: 29081-56-9), PFOS-NH(OH)2 (CAS No.: 70225-14-8), PFOS-N(C2H5)4 (CAS No.: 56773-42-3), PFOS-DDA (CAS No.:251099-16-8) 和 POSF (CAS No.: 307-35-7)

AfPS GS 2019:01 PAK-多环芳香烃 (PAHs)

参考 AfPS GS 2019:01 PAK, 采用 GC-MS 进行分析。 检测方法:

检测项目	CAS No.	单位	MDL	A1
苯并(a)芘 (BaP)	50-32-8	mg/kg	0.1	ND
苯并(e)芘 (BeP)	192-97-2	mg/kg	0.1	ND
苯并(a)蒽 (BaA)	56-55-3	mg/kg	0.1	ND
苯并(b)荧蒽 (BbF)	205-99-2	mg/kg	0.1	ND
苯并(j)荧蒽 (BjF)	205-82-3	mg/kg	0.1	ND
苯并 (k)荧蒽 (BkF)	207-08-9	mg/kg	0.1	ND
崫 (CHR)	218-01-9	mg/kg	0.1	ND
二苯并(a,h)蒽 (DBA)	53-70-3	mg/kg	0.1	ND
苯并(g,h,i)菲(二萘嵌苯) (BPE)	191-24-2	mg/kg	0.1	ND
茚苯(1,2,3-c,d)芘 (IPY)	193-39-5	mg/kg	0.1	ND
菲 (PHE)	85-01-8	mg/kg	0.1	ND
芘 (PYR)	129-00-0	mg/kg	0.1	ND



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检测项目	CAS No.	单位	MDL	A1
蒽 (ANT)	120-12-7	mg/kg	0.1	ND
荧蒽 (FLT)	206-44-0	mg/kg	0.1	ND
4 项多环芳香烃总和[菲 (PHE),芘 (PYR), 蔥 (ANT),荧蔥 (FLT)]	-	mg/kg	-	ND
萘 (NAP)	91-20-3	mg/kg	0.1	ND
15 项多环芳香烃总和	-	mg/kg	-	ND
材料分类	-	-	-	-

备注:

AfPS(德国产品安全委员会): 认证对多环芳香烃的要求

All O(感菌)加文主安贝·	1 类 2 类			3 类		
参数 单位 : mg/kg	设计意图为放入口中的材料,或与皮肤长期接触(超过30秒)的材料用于-2009/48/EC定义	不属于第 1 类,设计意图或可预见 ^d 与皮肤长期接触(超过 30 秒)或短期重复接触 ^c 的材料		不属于第 1 和 2 类,设计意图或可预见与皮肤短期接触(不超过 30 秒)材料		
	的玩具,或 -供 3 岁以下儿童 ^{a,b} 使用。	a .供儿童 使用的产品	b.其他产品	a.供儿童 使用的产品	b.其他产品	
苯并(a)芘 (BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并(e)芘 (BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并(a)蒽 (BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并(b)荧蒽 (BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并(j)荧蒽 (BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并 (k)荧蒽 (BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
趙 (CHR) ,mg/kg	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
二苯并(a,h)蒽 (DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
苯并(g,h,i)菲(二萘嵌 苯) (BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
茚苯(1,2,3-c,d)芘 (IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1	
菲 (PHE),芘 (PYR),蒽 (ANT),荥 蒽 (FLT)	<1 (总和)	<5 (总和)	< 10 (总和)	< 20 (总和)	< 50 (总和)	
萘 (NAP)	< 1	< 2		< 10		
15 PAH 之和	<1	< 5	< 10	< 20	< 50	

- a 儿童是指法定年龄未满 14 周岁的人。
- b供儿童使用包括儿童的主动接触或被动接触。
- 。"短期重复接触"的定义摘自 REACH 附录 XVII 第50条修正案 ((EC) No. 1272/2013)。
- d 根据德国产品安全法(ProdSG)(第一章第 2 条第 28 款)的定义,"可预见的使用"是指将产品投放市场的 人无意但可以合理预见的方式使用产品。



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备注:

德国产品安全委员会(AfPS)于 2020年 4月 10 日发布了关于多环芳香烃(PAHs)的新文件(AfPS GS 2019:01 PAK),该文件将于 2020年7月1日起用于 GS-MARK 认证。

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。



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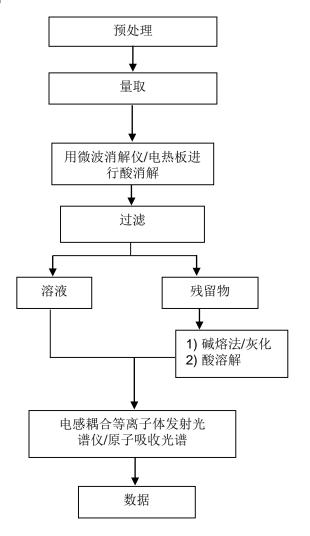
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附件

元素检测流程图

样品按照下述流程被完全消解





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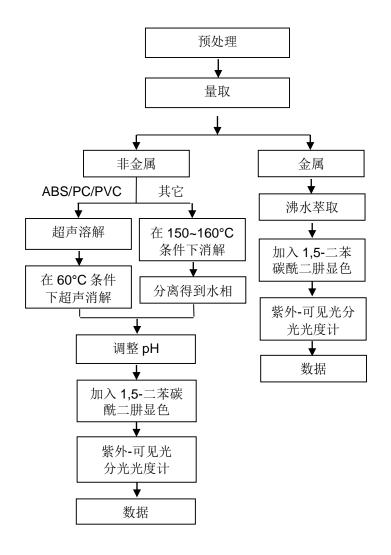


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六价铬检测流程图





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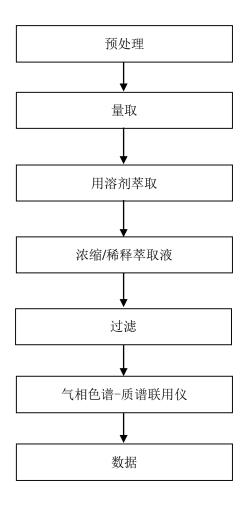


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PBBs/PBDEs 检测流程图





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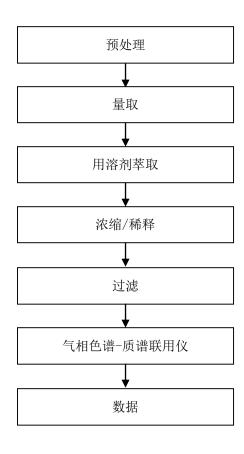
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附件

Phthalates 检测流程图





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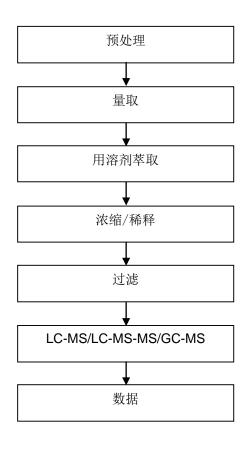


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PFASs/ PFOS/PFOA 检测流程图





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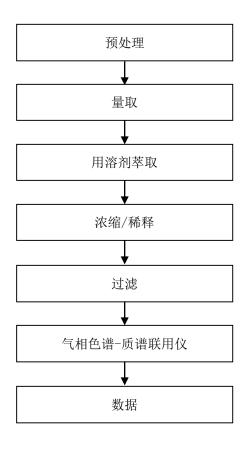


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PAHs 检测流程图





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