TEST REPORT
测试报告

LAB NO. 报告编号 **: (8818)059-0056**
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APPLICANT 申请公司名称	:	SHENZHEN UNIGREAT TECHNOLOGY CO.,LTD 深圳市嘉宇顺科技有限公司 NO 10.WAIHUAN ROAD,SHILONGZAI INDUSTRIAL PARK,SHIYAN,SHUITIAN,BAOAN DISTRICT,SHENZHEN 深圳市宝安区石岩镇水田石龙仔石环路10号
DATE OF SUBMISSION 样品收取日期	:	FEB 28, 2018 2018年2月28日
TEST PERIOD 测试周期	:	FEB 28, 2018 TO MAR 7, 2018 2018年2月28日至2018年3月7日
SAMPLE DESCRIPTION 样品描述	:	面板（包含PC、PVC、电镀PMMA、PET、PE保护膜）
Sample Size: 样品数量		5

BUREAU VERITAS SHENZHEN CO.,LTD
DONGGUAN BRANCH

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RT/RM/JO

备注

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SUMMARY OF TEST RESULTS
测试结果摘要

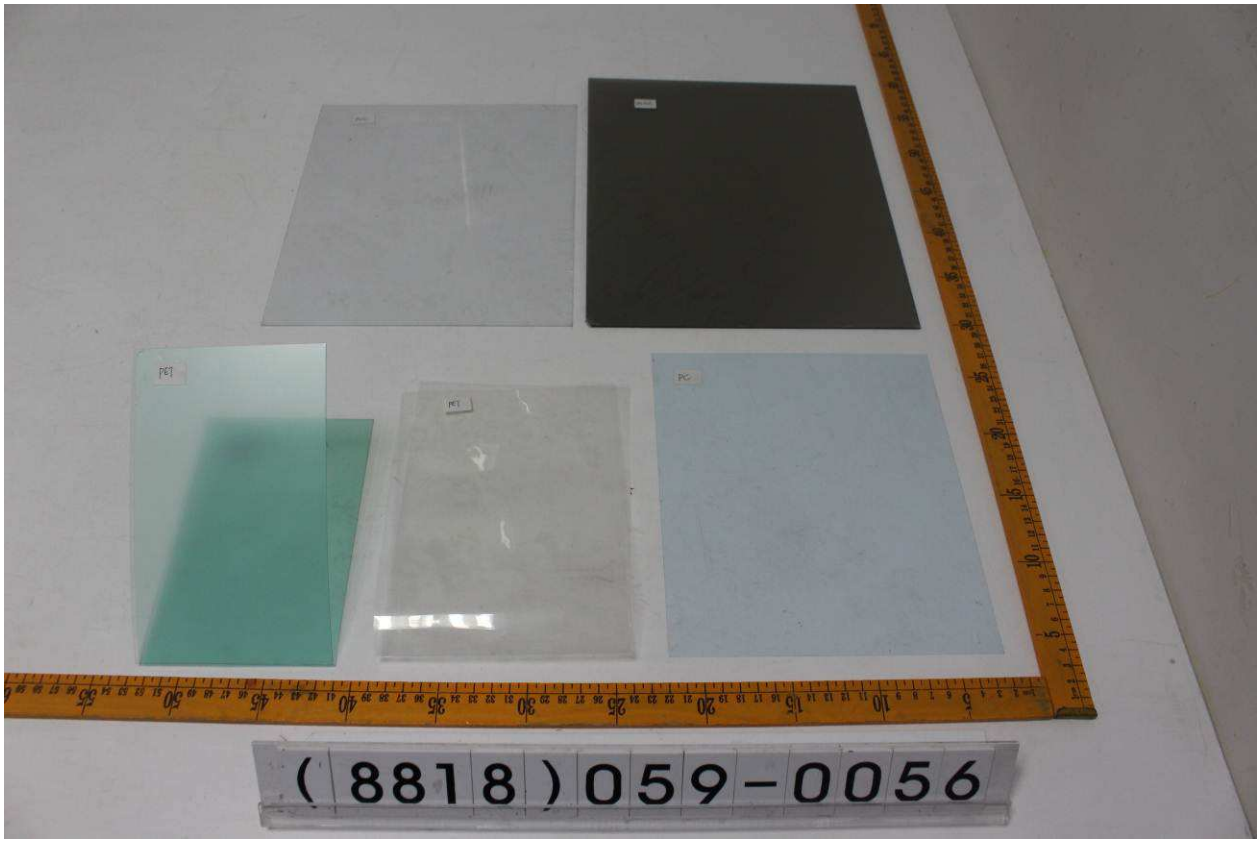
TEST REQUESTED 测试项目	**CONCLUSION** 结论	**REMARK** 备注
Heavy Metals and Flame Retardants Content – European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) 重金属和阻燃剂含量 - 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令), 2011/65/EU	PASS 通过	-
The BBP/DBP/DEHP/DIBP content requirements of the European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its amendments 邻苯二甲酸盐含量要求 – 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令) 2011/65/EU的修正案	PASS 通过	-

Note: At the request of client, test(s) was conducted on the certain component(s) of the submitted samples(s) / submitted component(s).

Note: The composite test sample(s) of the submitted samples was prepared in the manner requested by the client, when subject to the test performed.

Photo of the Submitted Sample

递交样品照片



TEST RESULT
测试结果

Heavy Metals and Flame Retardants Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)
重金属和阻燃剂含量 - 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令)，2011/65/EU

Test Method **测试方法**	:	See Appendix I. 见附录

Test Item(s) **测试项目**	**Item / Component Description(s)** **项目 / 部件描述**	**Location(s)** **位置**	**Style(s)** **款式**
I001	Silver coating 银色涂层	Surface the PMMA PMMA 表面	-
I002	Transparent plastic 透明塑胶	PMMA	-
I003	Clear plastic 透明塑胶	PC	-
I004	Clear plastic 透明塑胶	PET	-
I005	Transparent aqua plastic 透明湖绿塑胶	Cover of PET PET 包装	-
I006	Transparent PVC 透明 PVC	PVC	-

See Analytes (Parameter) and their corresponding Maximum Allowable Limit (Req.) in Result Table **分析物 (参数) 及其对应的最大允许限 (要求) – 见结果表**	**Type I** **类 I**	**Metallic material** **金属材料**
	Type II **类 II**	**Glass or ceramic material** **玻璃或陶瓷材料**
	Type III **类 III**	**Other non-metallic material except Type II** **其他非金属材料，类 II 材料除外**

TEST RESULT
测试结果

-	Unit 单位	Req. 要求	Result 结果			
Test Item(s) 测试项目	-	-	I001	I002	I003	I004+I005+I006
Type 类型	-	I/ III	I	III	III	III
Parameter 参数	-	-	-	-	-	-
Lead (Pb) 铅	mg/kg	1000	ND	ND	ND	ND
Cadmium (Cd) 镉	mg/kg	100	ND	ND	ND	ND
Mercury (Hg) 汞	mg/kg	1000	ND	ND	ND	ND
Chromium VI (Cr VI) 六价铬	mg/kg	1000/ Negative 阴性	Negative* 阴性*	ND	ND	ND
PBBs 多溴联苯	mg/kg	1000	ND	ND	ND	ND
MonoBB 一溴联苯	mg/kg	-	ND	ND	ND	ND
DiBB 二溴联苯	mg/kg	-	ND	ND	ND	ND
TriBB 三溴联苯	mg/kg	-	ND	ND	ND	ND
TetraBB 四溴联苯	mg/kg	-	ND	ND	ND	ND
PentaBB 五溴联苯	mg/kg	-	ND	ND	ND	ND
HexaBB 六溴联苯	mg/kg	-	ND	ND	ND	ND
HeptaBB 七溴联苯	mg/kg	-	ND	ND	ND	ND
OctaBB 八溴联苯	mg/kg	-	ND	ND	ND	ND
NonaBB 九溴联苯	mg/kg	-	ND	ND	ND	ND
DecaBB 十溴联苯	mg/kg	-	ND	ND	ND	ND
PBDEs 多溴联苯醚	mg/kg	1000	ND	ND	ND	ND
MonoBDE 一溴联苯醚	mg/kg	-	ND	ND	ND	ND
DiBDE 二溴联苯醚	mg/kg	-	ND	ND	ND	ND
TriBDE 三溴联苯醚	mg/kg	-	ND	ND	ND	ND
TetraBDE 四溴联苯醚	mg/kg	-	ND	ND	ND	ND
PentaBDE 五溴联苯醚	mg/kg	-	ND	ND	ND	ND
HexaBDE 六溴联苯醚	mg/kg	-	ND	ND	ND	ND
HeptaBDE 七溴联苯醚	mg/kg	-	ND	ND	ND	ND
OctaBDE 八溴联苯醚	mg/kg	-	ND	ND	ND	ND
NonaBDE 九溴联苯醚	mg/kg	-	ND	ND	ND	ND
DecaBDE 十溴联苯醚	mg/kg	-	ND	ND	ND	ND
Conclusion 结论	-	-	PASS 通过	PASS 通过	PASS 通过	PASS 通过

Note / key:

ND = Not detected 未检出 ">" = Greater than 大于 Req. = Requirement 要求
NR = Not requested 未要求 mg/kg = milligram(s) per kilogram毫克每千克= ppm = part(s) per million
NA = Not Applicable 10000 mg/kg = 1 % % = percent百分率
Detection Limit检出限 (mg/kg) :
For Type I - Each (Pb, Cd & Hg) 10
类 I - 各 (铅, 镉和 汞) 10
For Type II - Each (Pb, Cd, Hg & Cr VI) 10
类 II - 各 (铅, 镉, 汞和六价铬) 10
For Type III- Polymers & Electronics - Each (Pb, Cd, Hg & Cr VI): 10; Each (PBBs & PBDEs): 50
Others - Each (Pb, Cd & Hg): 10; Cr VI: 3.0; Each (PBBs & PBDEs): 50
类 III -聚合物及电子产品 – 各 (铅, 镉, 汞和六价铬): 10; 各 (多溴联苯和多溴联苯醚): 50
其他材料 – 各 (铅, 镉和汞): 10; 六价铬: 3.0; 各 (多溴联苯和多溴联苯醚): 50

Remark:

- The list of analytes is summarized in table of Appendix I.
  分析物列表 – 见附录。
- * Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Council Directive 2011/65/EU, Article 4(1).
  * 金属材料的六价铬结果以阴性和阳性表示。阴性表示六价铬未被检出在测试表面，即结果被认为符合 2011/65/EU 指令中，条款 4(1) 的要求。而阳性则表示六价铬存在在测试表面，即不符合 2011/65/EU 指令中，条款 4(1)的要求。
- According to European Council Directive 2011/65/EU, Article 5 "Adaptation of the Annexes to scientific and technical progress", exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
  根据欧盟委员会 2011/65/EU 指令中，条款 5 "适应科学技术进步的附件"，附件 III 和 IV 中列明的测试项目中的材料和部件可予以豁免。

APPENDIX I 附录I

List of Analytes and their Corresponding Test Methods [European Council Directive 2011/65/EU] : **分析物名单及其相应的测试方法 [欧盟委员会指令 2011/65/EU]:**		
No.	**Name of Analytes 分析物名称**	**Test Method(s) 测试方法**
1	Lead (Pb) 铅	With reference to International Standard IEC 62321-5: 2013. 参照国际标准 IEC 62321-5: 2013.
2	Cadmium (Cd) 镉	
3	Mercury (Hg) 汞	With reference to International Standard IEC 62321-4: 2017. 参照国际标准 IEC 62321-4: 2017.
4	Chromium VI (Cr VI) 六价铬	Metal 金属: With reference to International Standard IEC 62321-7-1: 2015. 参照国际标准 IEC 62321-7-1: 2015. Polymers and Electronics 聚合物及电子产品: With reference to European Standard EN 62321-7-2: 2017. 参照 EN 62321-7-2: 2017. Leather 皮革: International Standard ISO 17075-1:2017 国际标准 ISO 17075-1:2017 Other than Metal, Leather, Polymers and Electronics 其他非金属，皮革，聚合物及电子产品材料: With reference to International Standard ISO 17075-1:2017 参照国际标准 ISO 17075-1:2017
5	Polybromobiphenyls (PBBs) 多溴联苯 - Bromobiphenyl (MonoBB) 一溴联苯 - Dibromobiphenyl (DiBB) 二溴联苯 - Tribromobiphenyl (TriBB) 三溴联苯 - Tetrabromobiphenyl (TetraBB) 四溴联苯 - Pentabromobiphenyl (PentaBB) 五溴联苯 - Hexabromobiphenyl (HexaBB) 六溴联苯 - Heptabromobiphenyl (HeptaBB) 七溴联苯 - Octabromobiphenyl (OctaBB) 八溴联苯 - Nonabromobiphenyl (NonaBB) 九溴联苯 - Decabromobiphenyl (DecaBB) 十溴联苯	With reference to International Standard IEC 62321-6: 2015. 参照国际标准 IEC 62321-6: 2015.
6	Polybromodiphenyl ethers (PBDEs) 多溴联苯醚 - Bromodiphenyl ether (MonoBDE) 一溴联苯醚 - Dibromodiphenyl ether (DiBDE) 二溴联苯醚 - Tribromodiphenyl ether (TriBDE) 三溴联苯醚 - Tetrabromodiphenyl ether (TetraBDE) 四溴联苯醚 - Pentabromodiphenyl ether (PentaBDE) 五溴联苯醚 - Hexabromodiphenyl ether (HexaBDE) 六溴联苯醚 - Heptabromodiphenyl ether (HeptaBDE) 七溴联苯醚 - Octabromodiphenyl ether (OctaBDE) 八溴联苯醚 - Nonabromodiphenyl ether (NonaBDE) 九溴联苯醚 - Decabromodiphenyl ether (DecaBDE) 十溴联苯醚	
[a]	The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples. 该方法的原理是在由 IEC TC111 WG3 组织的两次研究中得到了充分评估并获得了认可。这些研究侧重于对金属样品上防腐涂层中六价铬的存在的检测(定性测试)。	

TEST RESULT
测试结果

BBP/DBP/DEHP/DIBP Content – European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments
邻苯二甲酸盐含量要求 – 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令) 2011/65/EU的修正案

Test Method :	Sample was extracted with organic solvent and then analyzed by Gas Chromatograph Mass Spectrometer. 样品用有机溶剂萃取并用气相色谱质谱仪分析。

Test Item(s) **测试项目**	**Item / Component Description(s)** **项目 / 部件描述**	**Location(s)** **位置**	**Style(s)** **款式**
I001	Silver coating 银色涂层	Surface the PMMA PMMA 表面	-
I002	Transparent plastic 透明塑胶	PMMA	-
I003	Clear plastic 透明塑胶	PC	-
I004	Clear plastic 透明塑胶	PET	-
I005	Transparent aqua plastic 透明湖绿塑胶	Cover of PET PET 包装	-
I006	Transparent PVC 透明 PVC	PVC	-

Test Parameter: 测试参数:	**BBP**	**DBP**	**DEHP**	**DiBP**	**-**
Limit 限值(%):	**0.1**	**0.1**	**0.1**	**0.1**	**-**
Test Item(s) 测试项目	**Result (%)**				**Conclusion**
I001+I002+I003	0.010	ND	ND	ND	PASS
I004+I005+I006	ND	ND	ND	ND	PASS

Note / key:

BBP = Butyl benzyl phthalate (CAS No: 85-68-7)
邻苯二甲酸丁苄酯

DBP = Dibutyl phthalate (CAS No: 84-74-2)
邻苯二甲酸二丁酯

DEHP = Di(2-ethylhexyl) phthalate (CAS No: 117-81-7)
邻苯二甲酸二异辛酯

DiBP = Diisobutyl phthalate (CAS No: 84-69-5)
邻苯二甲酸二异丁酯

ND = Not detected 未检出 % = percent 百分率 10000 mg/kg = 1 %

mg/kg = milligram(s) per kilogram 毫克每千克

检测限 (%) : 各 0.005

Remark:

- The amendment will be effective on 22 July 2019. For medical devices and control instruments, effective date will be 22 July 2021.
  该修正案将于 2019 年 7 月 22 生效，对于医疗器械和控制器械的生效日期为 2021 年 7 月 22 日。

*** End of Report ***