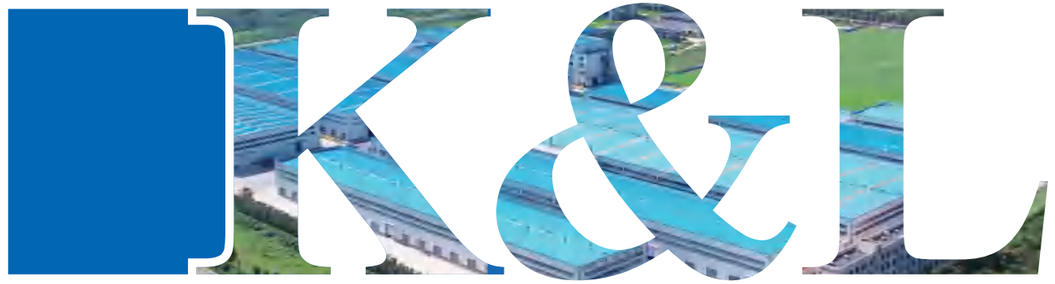
K&L客乐思

*Global Innovator Of Solid Surface*

全 球 实 体 面 材 创 新 者




# 资质汇编

# COMPILATION OF QUALIFICATIONS


山东客乐思新材料科技有限公司

工厂地址：山东省潍坊市临朐县龙山高新技术产业园营龙路2688号丨邮编262618

办公地址：上海市宝山区共和新路5199号11楼C座丨邮编200431

电话：021-5699 0086

传真：021-5721 9973

邮箱：info@shkelesi.com

官网：www.sdkelesi.com

Shandong Kelesi New Material Technology Co.,Ltd.

Factory:No.2688,Yinglong Road,Longshan Hi-tech Industrial Zone,Linqu County,Weifang City,Shandong,China,262618

Office:#11c,NO.5199,Gonghexin Road,Shanghai, China,200431

Tel:021-5699 0086

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Web:www.sdkelesi.com

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# 公　司　简　介

## COMPANY PROFILE



客乐思创立于2008年，运营中心设在上海，生产基地位于山东潍坊。公司成立十多年来，一直致力于研发和生产更具性价比的实体面材。客乐思以专注的匠人精神，卓越的产品质量，优质的客户服务，与国内外众多知名品牌建立长期战略合作关系，是国内领先的实体面材制造商。

客乐思生产基地建筑面积超过20万平方米，年产能可达500万平方米。公司拥有一批经验丰富的高级工程师，同时引进国际领先的生产工艺及设备，加上完善的服务系统，为全球客户提供实体面材的设计、研发、生产、销售等一站式服务。

客乐思全体员工团结一心为实现“全球实体面材创新者”的企业使命而奋斗。

KELESI was founded in 2008. The operation center is located in Shanghai, the production base is located in Weifang, Shandong. KELESI has been committed to the development and production of more cost-effective solid surface materials for more than ten years. With its dedicated craftsman spirit, excellent product quality, and comprehensive customer service, the company has established long-term strategic partnerships with various well-known domestic and international brands, and has become a leading manufacturer of solid surface materials in China.

The production base has a building area of more than 200,000 square meters, with an annual capacity of 5 million square meters. The company not only has a group of experienced senior engineers and a complete service system, but also continuously introduces international leading production technology and equipment to provide global customers with one-stop services including design, R&D, production, and sales of solid surface materials.

All employees of KELESI unite as one and strive to realize the corporate mission of becoming the “Global Innovator of Solid Surface”.



# 营业执照

（副本） 1-1

统一社会信用代码 91370724MA3DDBT0XA

名 称 山东客乐思新材料科技有限公司

类 型 其他有限责任公司

法定代表人 雷志晖

经营范围 许可项目：货物进出口、技术进出口。（依法须经批准的项目，经相关部门批准后方可开展经营活动，具体经营项目以相关部门批准文件或许可证件为准）一般项目：塑料制品制造；新材料技术研发，卫生洁具制造；专用化学产品销售（不含危险化学品），化工产品销售（不含许可类化工产品），技术服务、技术开发、技术咨询、技术交流、技术转让、技术推广。（除依法须经批准的项目外，凭营业执照依法自主开展经营活动）

成立日期 2017年03月27日

住 所 山东省潍坊市临朐县龙山高新技术产业园营龙路以西龙高路以北

登记机关 行政审批服务局 审批专用章 2023年12月06日

扫描市场主体身份码了解更多登记、备案、许可、监管信息，体验更多应用服务。

国家市场监督管理总局监制

市场主体应当于每年1月1日至6月30日通过国家企业信用信息公示系统报送公示年度报告。

国家企业信用信息公示系统网址：http://sd.gsxt.gov.cn



北京中物联联合认证中心

# 质量管理体系认证证书

注册号：06522Q00763R1M

## 山东客乐思新材料科技有限公司

统一社会信用代码：91370724MA3DDBT0XA

注册地址：山东省潍坊市临朐县龙山高新技术产业园营龙路以西龙高路以北

办公地址：山东省潍坊市临朐县龙山高新技术产业园营龙路交龙高路西北

生产经营地址：山东省潍坊市临朐县龙山高新技术产业园营龙路交龙高路西北

质量管理体系符合

**GB/T19001-2016/ISO9001:2015**

证书覆盖业务范围

高分子树脂板材的加工生产

| 第一次监督标志粘贴处 | 第二次监督标志粘贴处 | 第三次监督标志粘贴处 |
|---|---|---|

自颁证之日起，须每距上次审核12个月内再粘贴一次监督标志，否则证书将会无效。

证书有效期：2022年03月24日至2025年03月23日　　证书签发日期：2022年03月24日

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C065-M

地址：北京市东城区东兴隆街56号楼4层418，邮编：100062
证书有效性查询方式：www.bjzwl.org　电话：010-67161955
本证书信息可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询

2018年版

No: 1836619

CFL CERTIFICATION CENTER

# CERTIFICATION OF QUALITY MANAGEMENT SYSTEM

Registration No：06522Q00763R1M

**Shandong Kelesi New Material Technology Co., Ltd.**

Unified social credit code：91370724MA3DDBT0XA

Registered Address：West of Yinglong road and north of Longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Office Address：Northwest of Yinglong road and longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Production and Operation Address：Northwest of Yinglong road and longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Complies with the requirements of

**GB/T19001-2016/ISO9001:2015**

The scope of certification business covers:

Production of Polymer Resin Sheets

| | | |
|---|---|---|
| the 1st qualified identification | the 2nd qualified identification | the 3rd qualified identification |

The certified organization should paste a new intendance tag within 12 months from the last site aduit, otherwise the certificate will be invalid.

The validity period：2022-03-24 to 2025-03-23　　The issued date：2022-03-24

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C065-M

Add: Room 418,4th floor,Building 56,Dongxinglong Street,Dongcheng District,Beijing, 100062,P.R.C.
Inquiring Website:www.bjzwl.org　Inquiring Telephone:010-67161955
Administration Supervision Committee Official Website (www.cnca.gov.cn) Inquiry

Version 2018　　No: 1836619





北京中物联联合认证中心

# 环境管理体系认证证书

注册号：06522E00272R1M

## 山东客乐思新材料科技有限公司

统一社会信用代码：91370724MA3DDBT0XA

注册地址：山东省潍坊市临朐县龙山高新技术产业园营龙路以西龙高路以北

办公地址：山东省潍坊市临朐县龙山高新技术产业园营龙路交龙高路西北

生产经营地址：山东省潍坊市临朐县龙山高新技术产业园营龙路交龙高路西北

环境管理体系符合

**GB/T24001-2016/ISO14001:2015**

证书覆盖业务范围

高分子树脂板材的加工生产及相关管理活动

| | | |
|---|---|---|
| 第一次监督标志粘贴处 | 第二次监督标志粘贴处 | 第三次监督标志粘贴处 |

自颁证之日起，须每距上次审核12个月内再粘贴一次监督标志，否则证书将会无效。

证书有效期：2022年03月24日至2025年03月23日　　证书签发日期：2022年03月24日

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C065-M

地址：北京市东城区东兴隆街56号楼4层418，邮编：100062
证书有效性查询方式：www.bjzwl.org　电　话：010-67161955
本证书信息可在国家认证认可监督管理委员会官方网站(www.cnca.gov.cn)上查询

2018年版　　No: 1836620

CFL CERTIFICATION CENTER

# CERTIFICATION OF ENVIRONMENTAL MANAGEMENT SYSTEM

Registration No: 06522E00272R1M

**Shandong Kelesi New Material Technology Co., Ltd.**

Unified social credit code: 91370724MA3DDBT0XA

Registered Address: West of Yinglong road and north of Longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Office Address: Northwest of Yinglong road and longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Production and Operation Address: Northwest of Yinglong road and longgao Road, Longshan high tech Industrial Park, Linqu County, Weifang City, Shandong Province

Complies with the requirements of

**GB/T24001-2016/ISO14001:2015**

The scope of certification business covers:

Production of Polymer Resin Sheets and Related Management Activities

| the 1st qualified identification | the 2nd qualified identificatiou | the 3rd qualified identification |
|---|---|---|

The certified organization should paste a new intendance tag within 12 months from the last site adult, otherwise the certificate will be invalid.

The validity period: 2022-03-24 to 2025-03-23 The issued date: 2022-03-24

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C065-M

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Administration Supervision Committee Official Website (www.cnca.gov.cn) Inquiry

Version 2018 No: 1836620





ICS 83.140.20
CCS Q 22

# 中华人民共和国国家标准

GB/T 40426.1—2021

# 塑料制品 装饰性实体面材
# 第 1 部分:分类和规范

**Plastics—Decorative solid surfacing materials—Part 1:Classification and specifications**

(ISO 19712-1:2008,MOD)

2021-08-20 发布 2022-03-01 实施

国家市场监督管理总局
国家标准化管理委员会 发布

# 前　言

本文件按照 GB/T 1.1—2020《标准化工作导则　第 1 部分：标准化文件的结构和起草规则》的规定起草。

本文件是 GB/T 40426《塑料制品　装饰性实体面材》的第 1 部分。GB/T 40426 已经发布了以下部分：

——第 1 部分：分类和规范；

——第 2 部分：性能的测定　板型实体面材；

——第 3 部分：性能的测定　非板型实体面材。

本文件使用重新起草法修改采用 ISO 19712-1：2008《塑料制品　装饰性实体面材　第 1 部分：分类和规范》。

本文件与 ISO 19712-1：2008 相比在结构上有较多调整，附录 A 中列出了本文件与 ISO 19712-1：2008 章条编号的对照一览表。

本文件与 ISO 19712-1：2008 相比存在技术性差异。相关差异已编入正文中并在它们所涉及的条款的页边空白处用垂直单线(|)标识。在附录 B 中给出了这些技术性差异及其原因的一览表。

请注意本文件的某些内容可能涉及专利。本文件的发布机构不承担识别专利的责任。

本文件由中国轻工业联合会提出。

本文件由全国塑料制品标准化技术委员会(SAC/TC 48)归口。

本文件起草单位：中国石油化工股份有限公司北京化工研究院、山东客乐思新材料科技有限公司、广东富盛新材料股份有限公司、广东必图新材料科技股份有限公司、威盛亚(上海)有限公司、山东盛富莱实业有限公司、国化建(北京)测试认证科技有限公司、国家化学建筑材料测试中心(材料测试部)、北京工商大学。

本文件主要起草人：朱天戈、丁金海、武鹏、雷志晖、龚学锋、张建林、赵青、杨化浩、王涛、许博、赵彦霞、李永泉。







ICS 83.140.20
CCS Q 22

# 中华人民共和国国家标准

GB/T 40426.2—2021

# 塑料制品　装饰性实体面材
# 第 2 部分：性能的测定　板型实体面材

Plastics—Decorative solid surfacing materials—Part 2：Determination of properties—Sheet solid surfacing material

(ISO 19712-2：2007，Plastics—Decorative solid surfacing materials—Part 2：Determination of properties—Sheet goods，MOD)

2021-08-20 发布　　2022-03-01 实施

国家市场监督管理总局
国家标准化管理委员会　发布

GB/T 40426.2—2021

本文件做了下列编辑性修改：

——修改了标准名称。

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本文件由全国塑料制品标准化技术委员会(SAC/TC 48)归口。

本文件起草单位：中国石油化工股份有限公司北京化工研究院、山东客乐思新材料科技有限公司、广东富盛新材料股份有限公司、广东必图新材料科技股份有限公司、威盛亚(上海)有限公司、山东盛富莱实业有限公司、国化建(北京)测试认证科技有限公司、国家化学建筑材料测试中心(材料测试部)、北京工商大学。

本文件主要起草人：丁金海、朱天戈、武鹏、雷志晖、龚学锋、张建林、赵青、杨化浩、王涛、许博、李永泉、赵彦霞。





ICS 83.140.20
CCS Q 22

# 中华人民共和国国家标准

GB/T 40426.3—2021

# 塑料制品　装饰性实体面材
# 第3部分：性能的测定　非板型实体面材

**Plastics—Decorative solid surfacing materials—
Part 3：Determination of properties—Non-sheet solid surfacing material**

**(ISO 19712-3：2007，Plastics products—Decorative solid surfacing materials—
Part 3：Determination of properties—Solid surface shapes，MOD)**

2021-08-20 发布　　2022-03-01 实施

国家市场监督管理总局
国家标准化管理委员会　发布

GB/T 40426.3—2021

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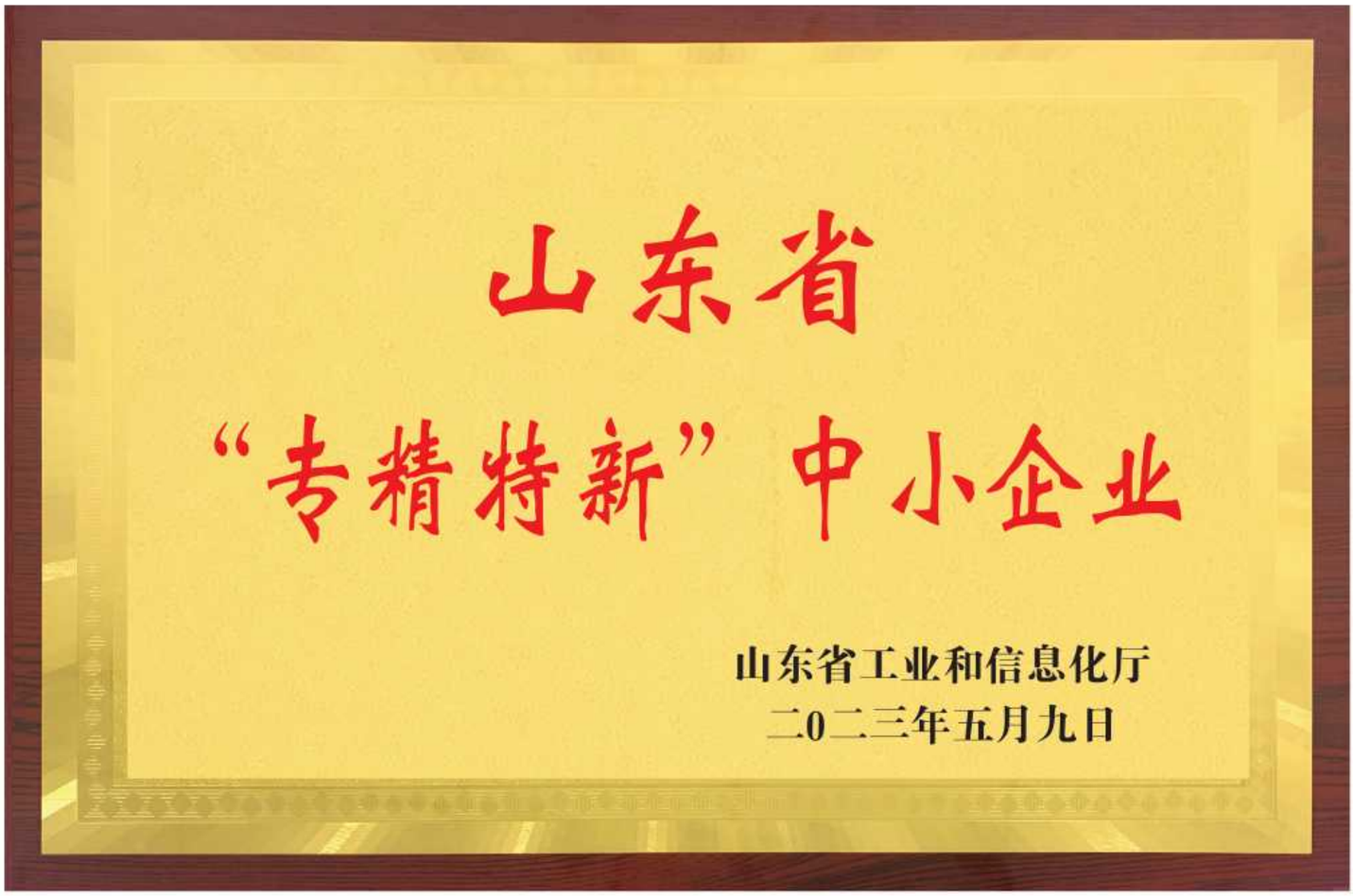
本文件由中国轻工业联合会提出。

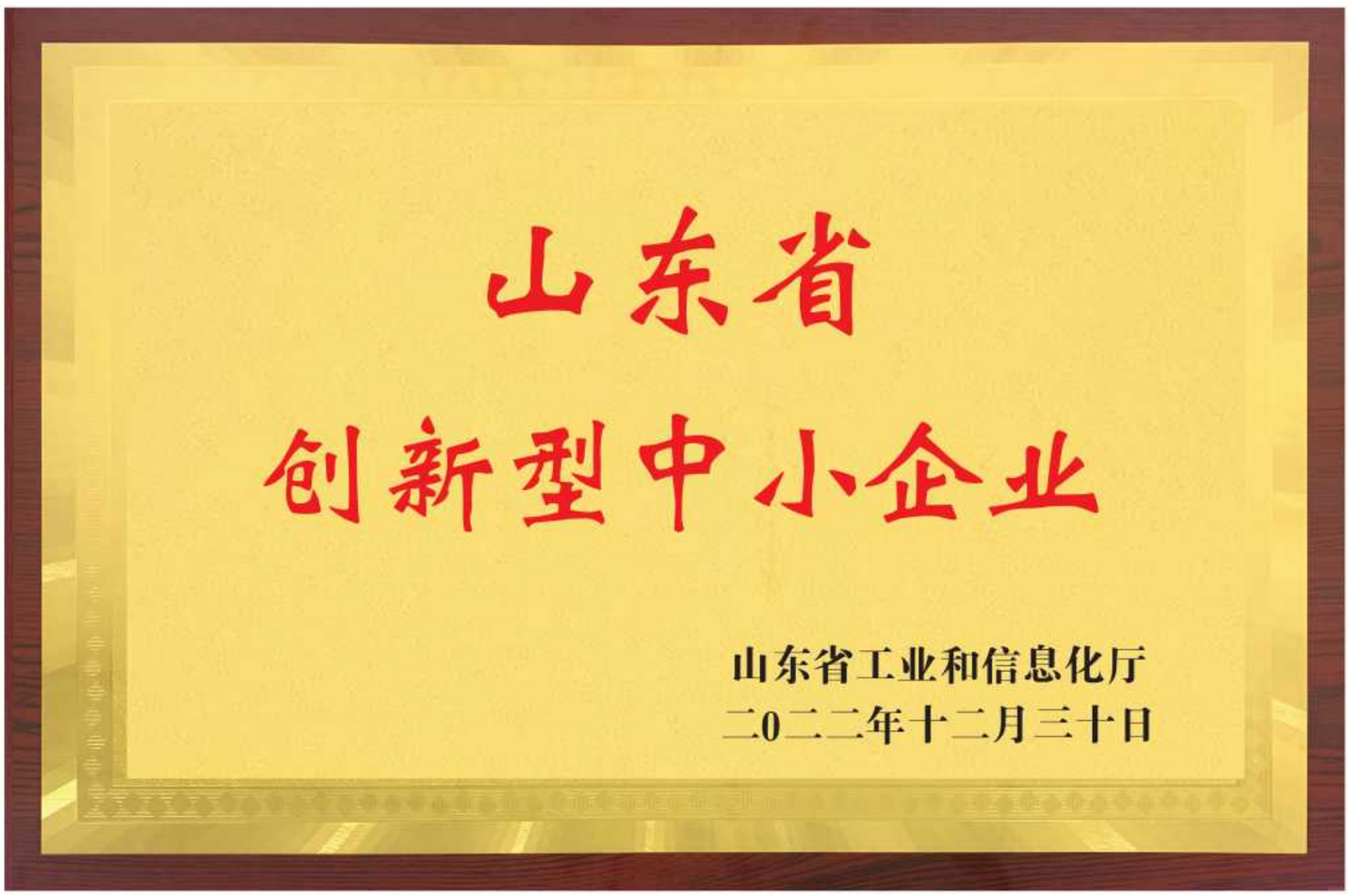
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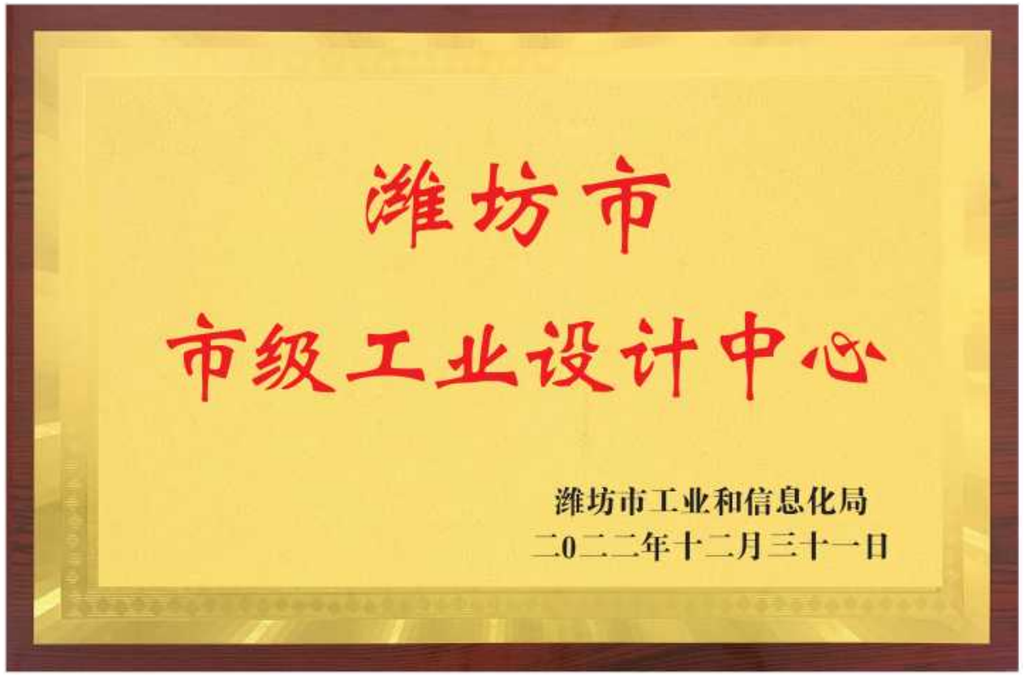
本文件起草单位:中国石油化工股份有限公司北京化工研究院、山东客乐思新材料科技有限公司、广东富盛新材料股份有限公司、广东必图新材料科技股份有限公司、威盛亚(上海)有限公司、山东盛富莱实业有限公司、国化建(北京)测试认证科技有限公司、国家化学建筑材料测试中心(材料测试部)、北京工商大学。

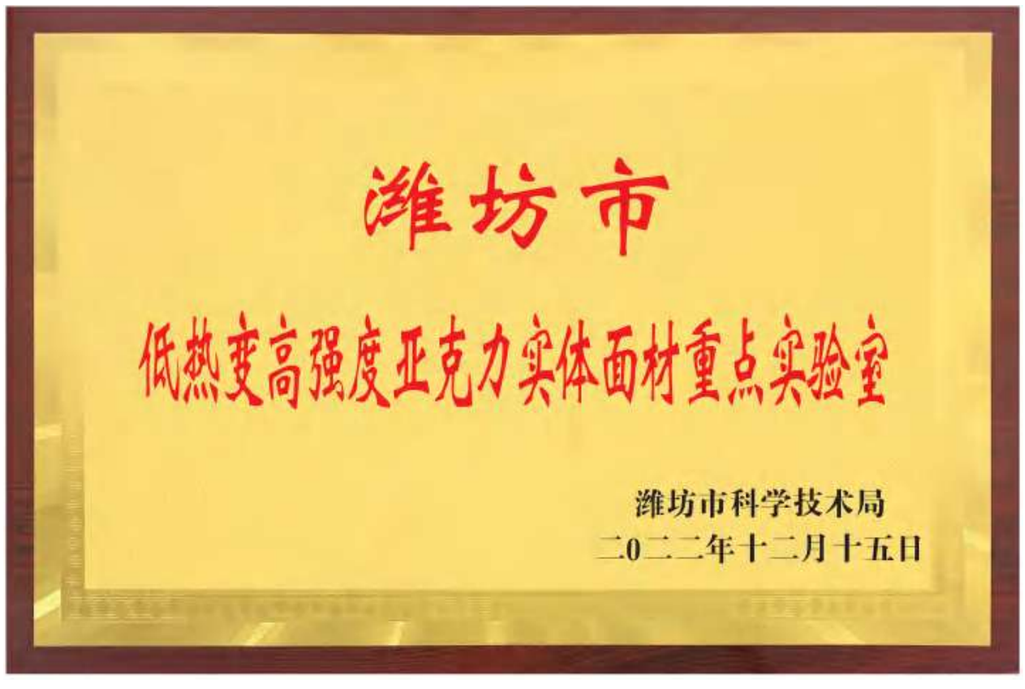
本文件主要起草人:李永泉、朱天戈、丁金海、雷志晖、龚学锋、张建林、赵青、杨化浩、王涛、许博、武鹏、赵彦霞。




山东省
“专精特新”中小企业
山东省工业和信息化厅
二0二三年五月九日


山东省
创新型中小企业
山东省工业和信息化厅
二0二二年十二月三十日








**同舟共济 共克时艰 务实合作 互利共赢**

山东客乐思新材料科技有限公司：

感谢贵司多年来对我公司的工作支持，合作过程中我们共同秉承“携手共进，合作共赢”原则，奠定了坚实的合作基础，共享发展新机遇。

贵司选择全部采购我司享誉全球的“中国白”优质填料氢氧化铝粉生产人造板材，产品在全球市场上以其综合性能、卓越品质受到国内外客户的认可，企业由小做大，由弱做强，目前贵司的产能及销售规模已取得全球前列、国内第一的骄人成绩，衷心祝福贵司立足新的起点，迈上新的征程，开创新的辉煌！

近三年贵司共采购我公司氢氧化铝粉 50180 吨，2018 年 13663 吨，2019 年 16516 吨，2020 年合同量 20000 吨，由此看出贵公司发展势头良好，销售业绩可喜可贺。

所有过往，皆为序章；所有将来，皆是可盼！愿我们双方携手共进，创造美好未来；愿贵司发展外围业务、拓展销售渠道、创立自身名牌，争做中国实体面材行业的标杆企业！

中铝中州新材料科技有限公司

**Joining hands in times of difficulties to strive for mutual beneficial and win-win prospect**

To: Shandong Kelesi New Materials Technology Co., Ltd.

Thank you for the business support to our company for all these years. By adhering to the "hand in hand, win-win cooperation" principle, we have laid a solid foundation for cooperation, and share the new opportunities for development.

Kelesi has been purchasing the world-renowned 'Chinese white'—the ATH(Aluminum hydroxide power) from us solely to make your solid surface for all these years. We have been witnessing your product being well-recognized by both domestic and overseas markets for its comprehensive performance and excellent quality, and your company growing from small to large, from weak to strong. At present, Kelesi's production capacity and sales volume has achieved the FIRST in China, and top-rank in the world. Congratulations on such impressive achievement! Meanwhile, we sincerely hope Kelesi will set out for a more glorious future from this new starting point.

In the last three years, the total volume of ATH purchased from our company is 50180 tons, from 13663 tons in 2018, 16516 tons in 2019, to 20000 tons of contract quantity in 2020. Thus it can be seen that Kelesi is growing in good momentum with increasing sales.

All the past is a prelude; all the future is worthy of looking forward to.
We have faith that Kelesi will become the benchmarking enterprise in solid surface industry in China by continuously developing peripheral business, expanding sales channels, and building your own brand.

Let's join hands together to create a brighter future!

Chalco Zhongzhou New Material Technology Co. , Ltd.
2020.4.13





CHALCO 中国铝业集团有限公司
ALUMINUM CORPORATION OF CHINA

K&L客乐思
Global Innovator Of Solid Surface
全 球 实 体 面 材 创 新 者



SGS

# 检测报告

编号 ：XMIN22000463PL02_CN
日期 ：2023-01-06


客户名称：　山东客乐思新材料科技有限公司
客户地址：　山东省潍坊市临朐县龙山高新技术产业园营龙路 2688 号

样品名称　：　复合亚克力

以上信息及样品由客户提供及确认，SGS 不承担证实客户提供信息的准确性、适当性和(或)完整性的责任。

**********

SGS 参考号　：　QDIN2210005375SC_CN,XMIN2210009124CM_CN,SDFS2210006814FF_CN, GZMR221003338902_CN,QDF22-065871-01
收样日期　：　2022-10-19
测试开始时间　：　2022-10-19
测试结束时间　：　2022-12-07
测试结果　：　请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

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# 检测报告

编号 ：XMIN22000463PL02_CN
日期 ：2023-01-06


结果总结：

| 序号 | 测试项目 | 测试方法 | 结果 | |
|---|---|---|---|---|
| 1 | 光老化试验-氙灯辐射暴露 | 参照 ANSI Z124.6-2007 第 5.1 节 & ASTM D2565-2016 及客户要求 | 样品表面无裂纹，无起泡，颜色或表面质地无明显变化。 | |
| 2 | 色差 | ASTM D2244-21 | $\triangle E^*_{ab}$=2.5 | |
| 3 | 耐磨性 | 参考 ASTM C241/C241M-21 | $H_a$: 31 | |
| 4 | 耐化学性 | 参考 ANSI Z124.6-2007 第 5.5 节 | 未受明显损伤 | |
| 5 | 吸水率及密度 | 参考 ASTM C97/C97M-18 | 平均吸水率 | 0.06 % |
| | | | 平均密度 | 1845 kg/m$^3$ |
| 6 | 耐污染性 | 参考 ANSI Z124.6-2007 第 5.2 节 | 总等级：57 (最大污染深度：0.02mm) | |
| 7 | 香烟燃烧 | 参考 ANSI Z124.6-2007 第 5.4 节 | 经测试，样品表面有可见污迹用水和软抹布能擦去。 | |
| 8 | 耐加热性 | 参考 ANSI Z124.6-2007 第 5.6 节 | 无影响 | |
| 9 | 耐高温测试 | 参考 NEMA LD 3-2005 第 3.6.2 节 | 无影响 | |
| 10 | 表面燃烧特征 | ASTM E84-22 | A 级 | |
| 11 | 悬臂梁缺口冲击强度 | ASTM D256-10(2018) 方法 C | 5J/m C(完全破坏) | |
| 12 | 线性膨胀系数 | 参照 ASTM D696-16 和客户要求 | 19.090×10$^{-6}$/°C | |
| 13 | 巴柯尔硬度 | ASTM D2583-13a | 62 | |
| 14 | 弯曲测试 | ASTM D790-17 程序 A | 弯曲强度 | 56.2MPa |
| | | | 弯曲模量 | 11200MPa |
| 15 | 拉伸强度 | ASTM D638-22 | 39.4MPa | |
| 16 | 拉伸模量 | ASTM D638-22 | 10200MPa | |

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# TEST REPORT

**No. : XMIN22000463PL02_EN**
**Date : 2023-01-06**
**Page: 1 of 30**

CUSTOMER NAME: SHANDONG KELESI NEW MATERIAL TECHNOLOGY CO., LTD
ADDRESS: NO. 2688, YINGLONG ROAD, LONGSHAN HI-TECH INDUSTRIAL ZONE, LINQU COUNTY, WEIFANG CITY, SHANDONG, CHINA

Sample Name : MODIFIED ACRYLIC SOLID SURFACE

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

**********

SGS Ref. No. : QDIN2210005375SC, XMIN2210009124CM, SDFS2210006814FF, GZMR221003338902, QDF22-065871-02
Date of Receipt : 2022-10-19
Testing Start Date : 2022-10-19
Testing End Date : 2022-12-07
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co.,Ltd. Xiamen Branch.

Jude

Jude Zhao
Authorized signatory

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# TEST REPORT

**No. : XMIN22000463PL02_EN**
**Date : 2023-01-06**
**Page: 2 of 30**

Summary of Results:

| No. | Test Item | Test Method | Result | |
|---|---|---|---|---|
| 1 | Light Ageing Test-Xenon-arc Exposure | With reference to ANSI Z124.6-2007 Section 5.1 & ASTM D2565-2016 & client's repuirement | The sample surface had no cracks or blisters, and there was no obvious change in color or surface texture. | |
| 2 | Color Difference | ASTM D2244-21 | $\triangle E^*_{ab}$=2.5 | |
| 3 | Abrasion Resistance | Refer to ASTM C241/C241M-21 | $H_a$: 31 | |
| 4 | Chemical Resistance Test | Refer to ANSI Z124.6-2007 Section 5.5 | Unaffected | |
| 5 | Absorption by weight and Density | Refer to ASTM C97/C97M-18 | Mean water absorption | 0.06% |
| | | | Mean density | 1845 kg/m$^3$ |
| 6 | Stain Resistance Test | Refer to ANSI Z124.6-2007 Section 5.2 | Total rating: 57(The maximum stain depth: 0.02mm) | |
| 7 | Cigarette Burn Test | Refer to ANSI Z124.6-2007 Section 5.4 | After testing, the samples have visible stains, which can be removed with soft cloth and water. | |
| 8 | Heated Pan Test | Refer to ANSI Z124.6-2007 Section 5.6 | No effect | |
| 9 | High Temperature Resistance | Refer to NEMA LD 3-2005 Section 3.6.2 | No effect | |
| 10 | Surface Burning Characteristics | ASTM E84-22 | Class A | |

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# TEST REPORT

**No. : XMIN22000463PL02_EN**
**Date : 2023-01-06**
**Page: 3 of 30**

| No. | Test Item | Test Method | Result | |
|---|---|---|---|---|
| 11 | Izod Notched Impact Strength | ASTM D256-10(2018) Method C | 5J/m C(complete break) | |
| 12 | Coefficient of Linear Thermal Expansion | With reference to ASTM D696-16 and client's requirement | $19.090\times10^{-6}$/°C | |
| 13 | Barcol Hardness | ASTM D2583-13a | 62 | |
| 14 | Flexural Test | ASTM D790-17 Procedure A | Flexural Strength | 56.2MPa |
| | | | Flexural Modulus | 11200MPa |
| 15 | Tensile Strength | ASTM D638-22 | 39.4MPa | |
| 16 | Tensile Modulus | ASTM D638-22 | 10200MPa | |

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# 检测报告

**编号 : XMIN22000463PL01_CN**
**日期 : 2023-01-06**
**页码 : 1 of 33**

客户名称： 山东客乐思新材料科技有限公司
客户地址： 山东省潍坊市临朐县龙山高新技术产业园营龙路 2688 号

样品名称 : 亚克力

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SGS 参考号 : QDIN2210005374SC_CN,XMIN2210009123CM_CN,SDFS2210006814FF_CN, GZMR221003338901_CN,QDF22-065871-01,CANML2222429002
收样日期 : 2022-10-19
测试开始时间 : 2022-10-19
测试结束时间 : 2022-12-07
测试结果 : 请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

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赵俊杰

赵俊杰 授权签字人

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# 检测报告

编号 ： XMIN22000463PL01_CN
日期 ： 2023-01-06


结果总结：

| 序号 | 测试项目 | 测试方法 | 结果 | |
|---|---|---|---|---|
| 1 | 光老化试验-氙灯辐射暴露 | 参照 ANSI Z124.6-2007 第 5.1 节 & ASTM D2565-2016 及客户要求 | 样品表面无裂纹，无起泡，颜色或表面质地无明显变化。 | |
| 2 | 色差 | ASTM D2244-21 | $\triangle E^*_{ab}$=1.8 | |
| 3 | VOC | SGS 内部方法（SGS-CCL-TOP-050-45，参考 EPA 5021A:2014） | 详见结果 | |
| 4 | 耐磨性 | 参考 ASTM C241/C241M-21 | $H_a$: 49 | |
| 5 | 耐化学性 | 参考 ANSI Z124.6-2007 第 5.5 节 | 未受明显损伤 | |
| 6 | 吸水率及密度 | 参考 ASTM C97/C97M-18 | 平均吸水率 | 0.10% |
| | | | 平均密度 | 1722 kg/m$^3$ |
| 7 | 耐污染性 | 参考 ANSI Z124.6-2007 第 5.2 节 | 总等级：43 (最大污染深度：0.02mm) | |
| 8 | 香烟燃烧 | 参考 ANSI Z124.6-2007 第 5.4 节 | 经测试，样品表面有可见污迹用水和软抹布不能擦去，用 400 目砂纸打磨后，可恢复原样。 | |
| 9 | 耐加热性 | 参考 ANSI Z124.6-2007 第 5.6 节 | 无影响 | |
| 10 | 耐高温测试 | 参考 NEMA LD 3-2005 第 3.6.2 节 | 无影响 | |
| 11 | 表面燃烧特征测试 | ASTM E84-22 | A 级 | |

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检测报告

编号 ： XMIN22000463PL01_CN
日期 ： 2023-01-06


| 序号 | 测试项目 | 测试方法 | 结果 | |
|---|---|---|---|---|
| 12 | 悬臂梁缺口冲击强度 | ASTM D256-10( 2018)方法 C | 5J/m C(完全破坏) | |
| 13 | 线性膨胀系数 | 参照 ASTM D696-16 和客户要求 | 20.200×10$^{-6}$/°C | |
| 14 | 巴柯尔硬度 | ASTM D2583-13a | 64 | |
| 15 | 弯曲测试 | ASTM D790-17 程序 A | 弯曲强度 | 63.9MPa |
| | | | 弯曲模量 | 10200MPa |
| 16 | 拉伸强度 | ASTM D638-22 | 45.0MPa | |
| 17 | 拉伸模量 | ASTM D638-22 | 9050MPa | |
| 18 | 抗真菌效果实验 | ASTM G 21-15(2021) | 0 级 | |

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# TEST REPORT

**No. : XMIN22000463PL01_EN**
**Date : 2023-01-06**
**Page: 1 of 34**

CUSTOMER NAME: SHANDONG KELESI NEW MATERIAL TECHNOLOGY CO., LTD
ADDRESS: NO. 2688, YINGLONG ROAD, LONGSHAN HI-TECH INDUSTRIAL ZONE, LINQU COUNTY, WEIFANG CITY, SHANDONG, CHINA

Sample Name : ACRYLIC SOLID SURFACE

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

**********

SGS Ref. No. : QDIN2210005374SC, XMIN2210009123CM, SDFS2210006814FF, GZMR221003338901, QDF22-065871-02,CANML2222429001
Date of Receipt : 2022-10-19
Testing Start Date : 2022-10-19
Testing End Date : 2022-12-07
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co.,Ltd. Xiamen Branch.

Jude Zhao
Authorized signatory

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Summary of Results:

| No. | Test Item | Test Method | Result | |
|---|---|---|---|---|
| 1 | Light Ageing Test-Xenon-arc Exposure | With reference to ANSI Z124.6-2007 Section 5.1 & ASTM D2565-2016 & client's repuirement | The sample surface had no cracks or blisters, and there was no obvious change in color or surface texture. | |
| 2 | Color Difference | ASTM D2244-21 | $\triangle E^*_{ab}$=1.8 | |
| 3 | VOC | SGS In-house method (SGS-CCL-TOP-050-45, with reference to EPA 5021A:2014) | See Result | |
| 4 | Abrasion Resistance | Refer to ASTM C241/C241M-21 | Ha: 49 | |
| 5 | Chemical Resistance Test | Refer to ANSI Z124.6-2007 Section 5.5 | Unaffected | |
| 6 | Absorption by weight and Density | Refer to ASTM C97/C97M-18 | Mean water absorption | 0.10% |
| | | | Mean density ($kg/m^3$) | 1722 $kg/m^3$ |
| 7 | Stain Resistance Test | Refer to ANSI Z124.6-2007 Section 5.2 | Total rating: 43 (The maximum stain depth: 0.02mm) | |
| 8 | Cigarette Burn Test | Refer to ANSI Z124.6-2007 Section 5.4 | After testing, the samples have visible stains, which can not be removed with soft cloth and water. After polishing with 400 mesh sandpaper, the samples will be restored to the original finish. | |

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# TEST REPORT

No. : XMIN22000463PL01_EN
Date : 2023-01-06
Page: 3 of 34

| No. | Test Item | Test Method | Result | |
|---|---|---|---|---|
| 9 | Heated Pan Test | Refer to ANSI Z124.6-2007 Section 5.6 | No effect | |
| 10 | High Temperature Resistance | Refer to NEMA LD 3-2005 Section 3.6.2 | No effect | |
| 11 | Surface Burning Characteristics | ASTM E84-22 | Class A | |
| 12 | Izod Notched Impact Strength | ASTM D256-10(2018) Method C | 5J/m C(complete break) | |
| 13 | Coefficient of Linear Thermal Expansion | With reference to ASTM D696-16 and client's requirement | $20.200\times10^{-6}$/°C | |
| 14 | Barcol Hardness | ASTM D2583-13a | 64 | |
| 15 | Flexural Test | ASTM D790-17 Procedure A | Flexural Strength | 63.9MPa |
| | | | Flexural Modulus | 10200MPa |
| 16 | Tensile Strength | ASTM D638-22 | 45.0MPa | |
| 17 | Tensile Modulus | ASTM D638-22 | 9050MPa | |
| 18 | Antimicrobial activity test | ASTM G 21-15(2021) | 0Grade | |

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# 检测报告

编号 : XMIN2303000668CM_CN
日期 : 2023-05-31
页码 : 1 of 25

扫码查看在线报告
XMIN2303000668CM

客户名称： 山东客乐思新材料科技有限公司
客户地址： 山东省潍坊市临朐县龙山高新技术产业园营龙路 2688 号

样品名称 : 亚克力（有机）实体面材
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SGS 参考号 : GZMR230300667201_CN，TJMR230300158501_CN，CANMLC2304232602，XMIN2303000311PL01_CN，QDF23-016258-01，SDFS2303001470FF_CN，GZMR230501280601_CN
收样日期 : 2023-03-20
测试开始时间 : 2023-03-20
测试结束时间 : 2023-05-23
测试结果 : 请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

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洪友延 授权签字人

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# 检测报告

编号 ： XMIN2303000668CM_CN
日期 ： 2023-05-31
页码 ： 2 of 25

结果总结：

| 序号 | 测试项目 | 测试方法 | 结果 | |
|---|---|---|---|---|
| 1 | 耐磨性 | 参考 ASTM C241/C241M-21 | Ha:44 | |
| 2 | 吸水率及密度 | 参考 ASTM C97/C97M-18 | 吸水率:0.07%<br>密度:1896kg/m³ | |
| 3 | 香烟燃烧 | 参考 ANSI Z124.6-2007 第 5.4 节 | 见结果 | |
| 4 | 耐加热性 | 参考 ANSI Z124.6-2007 第 5.6 节 | 无影响 | |
| 5 | 耐高温性 | 参考 NEMA LD-3-2005 第 3.6.2 节 | 无影响 | |
| 6 | 耐污染性 | 参考 ANSI Z124.6-2007 第 5.2 节 | 见结果 | |
| 7 | 耐化学腐蚀 | 参考 ANSI Z124.6-2007 第 5.5 节 | 未受明显损伤 | |
| 8 | 拉伸模量* | ASTM D638-22 | 9920MPa | |
| 9 | 拉伸强度* | ASTM D638-22 | 43.9MPa | |
| 10 | 弯曲测试* | ASTM D790-17 程序 A | 弯曲强度 | 59.9MPa |
| | | | 弯曲模量 | 13000MPa |
| 11 | 巴柯尔硬度* | ASTM D2583-13a | 68 | |
| 12 | 悬臂梁缺口冲击强度* | ASTM D256-10(2018) 方法 A | 20J/m<br>C(完全破坏) | |
| 13 | 线性膨胀系数* | ASTM D696-16 | 20.805×10⁻⁶/°C | |
| 14 | 挥发性有机化合物* | SGS 内部方法（GZTC CHEM-TOP-050-15） | 见结果 | |
| 15 | 光老化试验-氙灯辐射暴露 | ANSI Z124.6-2007 第 5.1 节 & ASTM D2565-16 & ASTM D2244-22 | 详见结果 | |
| 16 | 抗真菌效果实验* | ASTM G 21-15(2021) | 详见结果 | |
| 17 | 表面燃烧特征* | ASTM E84-22 | 详见结果 | |

备注: * 检测项目/方法由分包方执行。

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# TEST REPORT

No. : XMIN2303000668CM
Date : May 31, 2023
Page: 1 of 25

scan to see the report
XMIN2303000668CM

CUSTOMER NAME: SHANDONG KELESI NEW MATERIAL TECHNOLOGY CO., LTD
ADDRESS: NO. 2688, YINGLONG ROAD, LONGSHAN HI-TECH INDUSTRIAL ZONE, LINQU COUNTY, WEIFANG CITY, SHANDONG, CHINA

Sample Name : ACRYLIC （ORGANIC）SOLID SURFACE

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

**********

SGS Ref. No. : GZMR230300667201, TJMR230300158501, CANMLC2304232601, XMIN2303000311PL01_EN, QDF23-016258-02, SDFS2303001470FF, GZMR230501280601
Date of Receipt : Mar 20, 2023
Testing Start Date : Mar 20, 2023
Testing End Date : May 23, 2023
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co. , Ltd Xiamen Branch
Testing Center

Bryan Hong
Authorized signatory

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# TEST REPORT

No. : XMIN2303000668CM
Date : May 31, 2023


scan to see the report
XMIN2303000668CM

Summary of Results:

| No. | Test Item | Test Method | Result |
|---|---|---|---|
| 1 | Abrasion Resistance | Refer to ASTM C241/C241M-21 | Ha:44 |
| 2 | Absorption by Weight and Density | Refer to ASTM C97/C97M-18 | Absorption:0.07%<br>Density:1896kg/m$^3$ |
| 3 | Cigarette Burn | Refer to ANSI Z124.6-2007 Section 5.4 | See result |
| 4 | Heated Pan Test | Refer to ANSI Z124.6-2007 Section 5.6 | No effect |
| 5 | High Temperature Resistance | Refer to NEMA LD 3-2005 Section 3.6.2 | No effect |
| 6 | Stain Resistance Test | Refer to ANSI Z124.6-2007 Section 5.2 | See result |
| 7 | Chemical Resistance Test | Refer to ANSI Z124.6-2007 Section 5.5 | Unaffected |
| 8 | Tensile Modulus* | ASTM D638-22 | 9920MPa |
| 9 | Tensile Strength* | ASTM D638-22 | 43.9MPa |
| 10 | Flexural Test* | ASTM D790-17 Procedure A | Flexural Strength: 59.9MPa<br>Flexural Modulus: 13000MPa |
| 11 | Barcol Hardness* | ASTM D2583-13a | 68 |
| 12 | Izod Notched Impact Strength* | ASTM D256-10(2018) Method A | 20J/m<br>C(complete break) |
| 13 | Coefficient of Linear Thermal Expansion* | ASTM D696-16 | 20.805×10$^{-6}$/°C |
| 14 | Volatile Organic Compounds* | SGS In-house method (GZTC CHEM-TOP-050-15) | See result |

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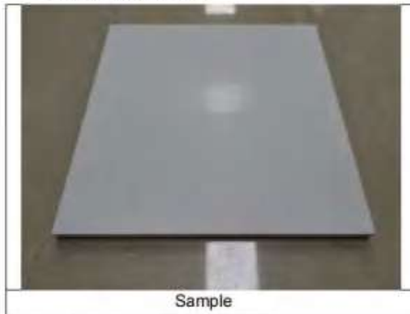
# TEST REPORT

No. : XMIN2303000668CM
Date : May 31, 2023


| | | | |
|---|---|---|---|
| 15 | Light Ageing Test-Xenon-arc Exposure | ANSI Z124.6-2007 section 5.1 & ASTM D2565-16 & ASTM D2244-22 | See result |
| 16 | Antimicrobial activity test* | ASTM G 21-15(2021) | See result |
| 17 | Surface Burning Characteristics | ASTM E84-22 | See result |

Note: * test project/method was carried out by subcontractors.

Original Sample Photo:



Sample

Note: Date received: 2023-05-15.

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# 检测报告

编号 : XMIN2301000103CM_CN
日期 : 2023-03-22


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客户地址: 山东省潍坊市临朐县龙山高新科技产业园营龙路 2688 号

样品名称 : 亚克力实体面材
生产商 : 山东客乐思新材料科技有限公司
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SGS 参考号 : XMIN2301000046PL01_CN
收样日期 : 2023-01-13
测试开始时间 : 2023-01-13
测试结束时间 : 2023-03-22
测试结果 : 请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

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检测中心
授权签名

洪友延 授权签字人

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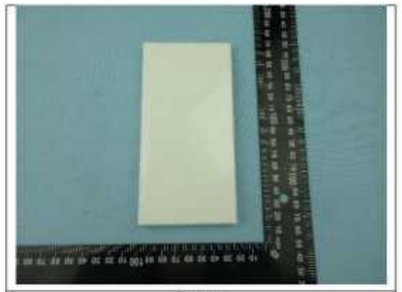
# 检测报告

编号 : XMIN2301000103CM_CN
日期 : 2023-03-22


结果总结：

| 序号 | 测试项目 | 测试方法 | 结果 |
|---|---|---|---|
| 1 | 光老化试验-UV辐射暴露 | ISO 4892-3:2016 循环 1 & ASTM D2244-22 | 详见结果 |

原样照片：



样品 A

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# 检测报告

编号 ： XMIN2301000103CM_CN
日期 ： 2023-03-22
页码 ： 3 of 4

测试项目：光老化试验-UV 辐射暴露

样品描述：见照片

测试方法：ISO 4892-3:2016 循环 1 & ASTM D2244-22

测试条件：

试验循环：

灯管类型：UVA-340

光照：8 h，黑板温度：(60±3)℃，辐照度：0.76 W/(m²•nm)@340 nm

冷凝：4 h，黑板温度：(50±3)℃

测试时间：1500 h

测试结果：

| 样品 | 外观 | ΔE*ab |
|---|---|---|
| A | 可见变色 | 1.3 |

备注：$\Delta E^*_{ab}$用积分球分光光度计测量，使用 D65 标准光源，10°观察角，结果为包含镜面反射，8mm 孔径。

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# TEST REPORT

No. : XMIN2301000103CM
Date : Mar 22, 2023
Page: 1 of 4

scan to see the report
XMIN2301000103CM

CUSTOMER NAME: SHANDONG KELESI NEW MATERIAL TECHNOLOGY CO., LTD.
ADDRESS: NO.2688, YINGLONG ROAD, LINQU COUNTY, WEIFANG CITY, SHANDONG, CHINA, 262618

Sample Name : ACRYLIC SOLID SURFACE
Manufacturer : Shandong Kelesi New Material Technology Co.,Ltd.
Other Information : Place of origin: China

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

**********

SGS Ref. No. : XMIN2301000046PL01_EN
Date of Receipt : Jan 13, 2023
Testing Start Date : Jan 13, 2023
Testing End Date : Mar 22, 2023
Test result(s) : For further details, please refer to the following page(s) (Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical Services Co., Ltd Xiamen Branch Testing Center

Bryan Hong
Authorized signatory

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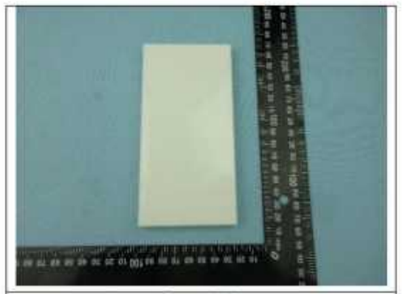
# TEST REPORT

No. : XMIN2301000103CM
Date : Mar 22, 2023


Summary of Results:

| No. | Test Item | Test Method | Result |
|---|---|---|---|
| 1 | Light Ageing Test-UV Exposure | ISO 4892-3:2016 cycle 1 & ASTM D2244-22 | See result |

Original Sample Photo:



Sample A

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# TEST REPORT

No. : XMIN2301000103CM
Date : Mar 22, 2023


Test Item: Light Aging Test-UV exposure
Sample description: See photo
Test Method: ISO 4892-3:2016 cycle 1 & ASTM D2244-22
Test Condition:
Exposure cycle:
Lamp type: UVA-340
8 h UV at (60±3) ℃ BPT, 0.76 W/(m²•nm)@340 nm
4 h condensation at (50±3) ℃ BPT
Exposure duration: 1500 h
Test Result:

| Sample | Appearance | ΔE*ab |
|---|---|---|
| A | Visible discoloration | 1.3 |

Note: $\Delta E^*_{ab}$ was measured by sphere spectrophotometer under D65 standard light source and with 10° observer. The results include specular reflection condition, 8mm aperture.

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# 检测报告

编号 ： XMIN2402000196CM01-1_CN
日期 ： 2024-02-28


扫码查看在线报告

客户名称： 山东客乐思新材料科技有限公司
客户地址： 山东省潍坊市临朐县龙山高新科技产业园营龙路 2688 号

样品名称 ： 亚克力-Y
产品规格 ： 客乐思亚克力人造石-Y 的所有系列颜色
生 产 商 ： 山东客乐思新材料科技有限公司
原产地 ： 中国

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SGS 参考号 ： SDFS2402000908FF_CN
收样日期 ： 2024-02-01
测试周期 ： 2024-02-01 ~ 2024-02-27
测试结果 ： 请见下页（除另有特别说明外，此报告结果仅对测试样品负责）

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# 检测报告



燃烧测试

**测试要求：**

EN 13501-1:2018 建筑制品及建筑构件防火分级 第1部分: 使用对火反应试验的数据进行分级。

**I. 测试方法**

试验根据EN 13501-1:2018 建筑制品及建筑构件防火分级 第1部分: 使用对火反应试验的数据进行分级，

测试方法如下：

1. EN 13823:2020+A1:2022 建筑制品对火反应试验 除铺地材料以外的建筑制品单体燃烧试验。
2. EN ISO 11925-2:2020 对火反应试验 直接受到火焰冲击的制品的可燃性第 2 部分:单一火源试验。

**II. 分级样品详情**

| | |
|---|---|
| 样品描述 | 板材 |
| 颜色 | 白色 |
| 厚度 | 12mm |

**试样安装与固定:**

自支撑，无基材，有通风间隙的样品，样品与背板间距80mm。样品之间无接缝。

**III. 测试结果**

| 测试方法 | 参数 | 测试数量 | 结果 |
|---|---|---|---|
| EN 13823 | $FIGRA_{0.2MJ}$（W/s） | 3 | 48.6 |
| | $FIGRA_{0.4MJ}$（W/s） | | 48.6 |
| | 火焰横向蔓延（*LFS*）是否到达试样长翼边缘（是/否） | | 否 |
| | $THR_{600s}$（MJ） | | 5.9 |
| | SMOGRA（$m^2/s^2$） | | 0.9 |
| | $TSP_{600s}$（$m^2$） | | 12.6 |
| | 燃烧滴落物及碎片（是/否） | | 否 |
| EN ISO 11925-2 施火时间 = 30 s | 60s内Fs≤150mm（是/否） | 12 | 是 |
| | 是否点燃滤纸（是/否） | | 否 |

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# 检测报告

编号 ： XMIN2402000196CM01-1_CN
日期 ： 2024-02-28


**注：**

$FIGRA_{0.2MJ}$ – 当燃烧释放热量达到 0.2MJ 时的燃烧增长速率指数[W/s]

$FIGRA_{0.4MJ}$ - 当燃烧释放热量达到 0.4MJ 时的燃烧增长速率指数[W/s]

$THR_{600s}$ -试样受火前 600s 内的总热释放量[MJ]

SMOGRA – 烟气生成速率指数[$m^2/s^2$]

$TSP_{600s}$ - 试样受火前 600s 内的总产烟量 [$m^2$]

**IV. 分级和应用领域**

**a) 分级依据**

依据 **EN 13501-1:2018** 进行分级。

**b) 分级**

所提供样品，亚克力-Y（如客户所述），根据其燃烧性能，分级如下：

| 防火等级 | | 烟气等级 | | | 滴落等级 | |
|---|---|---|---|---|---|---|
| B | – | s | 1 | , | d | 0 |

**燃烧性能等级: B–s1, d0**

**备注:** 级别对应燃烧性能要求在附录A给出。

**c) 应用领域**

本测试分级对于制品的下述参数有效

---样品材料特性符合报告中第II 部分的描述。

本测试分级对于在下述最终应用条件下有效：

--- 无基材

--- 自支撑

--- 无接缝

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# TEST REPORT

No. : XMIN2402000196CM01-1_EN
Date : 2024-02-28


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Verification: check.sgsonline.com.cn

CUSTOMER NAME: SHANDONG KELESI NEW MATERIAL TECHNOLOGY CO., LTD.
ADDRESS: No.2688, Yinglong Road, Linqu County, Weifang City, Shandong, China, 262618

| | | |
|---|---|---|
| Sample Name | : | ACRYLIC SOLID SURFACE Y GRADE |
| Product Specification | : | Kelesiacrylic solid surface (Y grade) sheeting in all colors |
| Manufacturer | : | Shandong Kelesi NewMaterial Technology Co., Ltd. |
| Country Of Origin | : | China |

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

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| | | |
|---|---|---|
| SGS Ref. No. | : | SDFS2402000908FF |
| Date of Receipt | : | 2024-02-01 |
| Testing Period | : | 2024-02-01 ~ 2024-02-27 |
| Test result(s) | : | For further details, please refer to the following page(s) (Unless otherwise stated the results shown in this test report refer only to the sample(s) tested) |

Signed for
SGS-CSTC Standards Technical Services Co.,Ltd. Xiamen Branch.

Bryan Hong
Authorized signatory

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# TEST REPORT

No. : XMIN2402000196CM01-1_EN
Date : 2024-02-28


Flammability Properties Test

**Test Requested:**

EN 13501-1:2018 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests.

**I. Test conducted**

This test is conducted as per EN 13501-1:2018 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests. And the test methods as following:

1. EN 13823:2020+A1:2022 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2020 Reaction to fire tests — Ignitability of products subjected to direct impingement of flame — Part 2: Single-flame source test.

**II. Details of classified product**

| | |
|---|---|
| Sample Description | Board |
| Color | White |
| Thickness | 12mm |

**Mounting and fixing:**

Specimen that was free standing and had no substrate but with a ventilated cavity should be tested at a distance of 80mm from the backing board. There was no joint between specimens.

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TEST REPORT
No. : XMIN2402000196CM01-1_EN
Date : 2024-02-28


**III. Test results**

| Test methods | Parameter | Number of tests | Results |
|---|---|---|---|
| EN 13823 | $FIGRA_{0.2MJ}$ (W/s) | 3 | 48.6 |
| | $FIGRA_{0.4MJ}$ (W/s) | | 48.6 |
| | Whether lateral flame spread (LFS) to the edge of specimen (Yes/No) | | No |
| | $THR_{600s}$ (MJ) | | 5.9 |
| | SMOGRA ($m^2/s^2$) | | 0.9 |
| | $TSP_{600s}$ ($m^2$) | | 12.6 |
| | Flaming particles or droplets (Yes/No) | | No |
| EN ISO 11925-2 Exposure = 30 s | Fs≤150mm within 60 s (Yes/No) | 12 | Yes |
| | Ignition of the filter paper (Yes/No) | | No |

**Note:**

$FIGRA_{0.2MJ}$ - Fire growth rate index at THR threshold of 0,2 MJ [W/s]
$FIGRA_{0.4MJ}$ - Fire growth rate index at THR threshold of 0,4 MJ [W/s]
$THR_{600s}$ -Total heat release within 600 s [MJ]
SMOGRA - Smoke growth rate [$m^2/s^2$]
$TSP_{600s}$- Total smoke production within 600 s [$m^2$]

**IV. Classification and field of application**

**a) Reference of classification**

This classification has been carried out in accordance with **EN 13501-1:2018.**

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# TEST REPORT

No. : XMIN2402000196CM01-1_EN
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**b) Classification**

The product, ACRYLIC SOLID SURFACE Y GRADE (as described by the sponsor), in relation to its reaction to fire behaviour is classified:

| Fire behaviour | | Smoke production | | | Flaming droplets | |
|---|---|---|---|---|---|---|
| B | – | s | 1 | , | d | 0 |

**Reaction to fire classification: B–s1, d0**

**Remark:** The classes with their corresponding fire performance are given in annex A.

**c) Field of application**

This classification is valid for the following product parameters:

--- Characteristics as described in section II of this test reports.

This classification is valid for the following end use applications:

--- Without any substrates
--- Free standing
--- No joint

**Limitations**

This classification document does not represent type approval or certification of the product.

**Warning:**

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

**Statement:**

This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.

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NSF International
789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

Shandong Kelesi New Material Technology Co., Ltd.
China

AS COMPLYING WITH NSF/ANSI 51 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.

This certificate is the property of NSF International and must be returned upon request. This certificate remains valid as long as this client has products in NSF's Official Listings for the referenced standards. For the most current and complete Listing information, please access NSF's website (www.nsf.org).

June 27, 2023
Certificate# C0495730 - 02

Samuel Cole
Director Product Certification

NSF International
789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

Shandong Kelesi New Material Technology Co., Ltd.
Facility: Shandong, China

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June 27, 2023
Certificate# C0495733 - 02

Samuel Cole
Director Product Certification

全 球 实 体 面 材 创 新 者
Global Innovator Of Solid Surface

# OFFICIAL LISTING

NSF certifies that the products appearing on this Listing conform to the requirements of NSF/ANSI 51 - Food Equipment Materials

This is the Official Listing recorded on July 27, 2023.

**Shandong Kelesi New Material Technology Co., Ltd.**
**No. 2688 Yinglong Rd, Longshan**
**Hi-Tech Ind. Park, Linqu County**
**Weifang, Shandong 262618**
**China**
**86 536 6201678**

**Facility: Shandong, China**

| Trade Designation | Color | Type of food | Maximum Temperature of Use in °F |
|---|---|---|---|
| Solid Surfacing for Food Zone[1] | | | |
| Acrylic solid surface KA-815 | Metallic Galaxy | All food contact types | 212° |
| Acrylic solid surface KA-847 | Sparkle White | All food contact types | 212° |
| Acrylic solid surface KM-101 | Black Night | All food contact types | 212° |
| Acrylic solid surface KM-103 | Sahara | All food contact types | 212° |
| Acrylic solid surface KM-105 | Cream | All food contact types | 212° |
| Acrylic solid surface KM-106 | Grey | All food contact types | 212° |
| Acrylic solid surface KM-120 | Auraro | All food contact types | 212° |
| Acrylic solid surface KM-129 | Pearl White | All food contact types | 212° |
| Acrylic solid surface KM-155 | Midnight | All food contact types | 212° |
| Acrylic solid surface KM-159 | Classic Grey | All food contact types | 212° |
| Acrylic solid surface KM-170 | Chestnut | All food contact types | 212° |
| Acrylic solid surface KP-307 | Frost | All food contact types | 212° |
| Acrylic solid surface KP-309 | Milk White | All food contact types | 212° |
| Acrylic solid surface KP-313 | Obsidian | All food contact types | 212° |
| Acrylic solid surface KP-321 | Snow White | All food contact types | 212° |
| Acrylic solid surface KP-365 | Pebble Gold | All food contact types | 212° |
| Acrylic solid surface KP-373 | Savannah | All food contact types | 212° |
| Acrylic solid surface KP-386 | White Cloud | All food contact types | 212° |



| | | | |
|---|---|---|---|
| Acrylic solid surface KP-415 | Dove | All food contact types | 212° |
| Acrylic solid surface KP-429 | Cromium Atom | All food contact types | 212° |
| Acrylic solid surface KP-502 | Rice Paper | All food contact types | 212° |
| Acrylic solid surface KP-508 | Cubic White | All food contact types | 212° |
| Acrylic solid surface KP-509 | Darjeeling | All food contact types | 212° |
| Acrylic solid surface KP-510 | Deep Night Sky | All food contact types | 212° |
| Acrylic solid surface KS-001 | Black | All food contact types | 200° |
| Acrylic solid surface KS-002 | Ivory | All food contact types | 212° |
| Acrylic solid surface KS-003 | White | All food contact types | 212° |
| Acrylic solid surface KS-010 | Orange | All food contact types | 212° |
| Acrylic solid surface KS-034 | Yellow | All food contact types | 212° |
| Acrylic solid surface KS-035 | China Red | All food contact types | 212° |
| KA-827 | Perna White | All food contact types | 212° |
| KP-533 | Arctic Granite | All food contact types | 212° |
| KP-591 | Crystal Beige | All food contact types | 212° |
| KS-018 | Light White | All food contact types | 212° |
| KS-1140 | White | All food contact types | 212° |
| LA-828 | Nebula | All food contact types | 212° |
| LA-847 | Sparkle White | All food contact types | 212° |
| LP-313 | Obsidian | All food contact types | 212° |
| LP-317 | White Jade | All food contact types | 212° |
| LP-321 | Snow White | All food contact types | 212° |
| LP-327 | Beige | All food contact types | 212° |
| LP-374 | Ice Queen | All food contact types | 212° |
| LVA-1009 | Crystal Wood | All food contact types | 212° |
| LVA-1010 | Light Wood | All food contact types | 212° |
| LVA-1011 | Beige Wood | All food contact types | 212° |
| LVA-1012 | Mahogany Wood | All food contact types | 212° |
| LVA-1013 | Grey Wood | All food contact types | 212° |

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Global Innovator Of Solid Surface

| | | | |
|---|---|---|---|
| LVA-1014 | Astral Grey | All food contact types | 212° |
| LVA-1015 | Travertine Grey | All food contact types | 212° |
| LVA-1016 | Travertine Tawny | All food contact types | 212° |
| LVA-1017 | Travertine Brown | All food contact types | 212° |
| LVA-1018 | Astral Linen | All food contact types | 212° |
| LVA-3502 | Carrara | All food contact types | 212° |
| LVA-3503 | Light Cararra | All food contact types | 212° |
| LVA-3504 | Cloudy Cotton | All food contact types | 212° |
| LVA-3505 | Linear Beige | All food contact types | 212° |
| LVA-3506 | Venato Calacatta | All food contact types | 212° |
| LVA-3507 | White Calacatta | All food contact types | 212° |
| LVA-3508 | Linear Carrara | All food contact types | 212° |
| LVA-3509 | Light Calacatta | All food contact types | 212° |
| LVA-3510 | Linear White | All food contact types | 212° |
| LVA-3511 | Brown Concrete | All food contact types | 212° |
| LVA-3512 | Green Crystal | All food contact types | 212° |
| LVA-3515 | Marble Calacatta | All food contact types | 212° |
| LVA-3516 | Black Calacatta | All food contact types | 212° |
| LVA-3526 | Golden White Calacatta | All food contact types | 212° |
| LVM-0002 | Light Cloud | All food contact types | 212° |
| LVM-0003 | Dark Cloud | All food contact types | 212° |
| LVM-0004 | Cardenia | All food contact types | 212° |
| LVM-0005 | Venato White | All food contact types | 212° |
| LVM-0006 | Golden Onyx | All food contact types | 212° |
| LVM-0007 | Green Onyx | All food contact types | 212° |
| LVM-0008 | Orange Onyx | All food contact types | 212° |
| LVM-0009 | Pink Onyx | All food contact types | 212° |
| LVM-0010 | Jasper Onyx | All food contact types | 212° |
| LVM-0011 | Spoondrift | All food contact types | 212° |

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| | | | |
|---|---|---|---|
| LVM-0012 | Spray Beige | All food contact types | 212° |
| LVM-0013 | Green Bamboo | All food contact types | 212° |
| LVM-0014 | Cotton | All food contact types | 212° |
| LVM-0015 | Beige Meteor | All food contact types | 212° |
| LVM-2501 | Cloudy White | All food contact types | 212° |
| LVM-2502 | Dreamy White | All food contact types | 212° |
| LVM-2503 | Cloudy Soil | All food contact types | 212° |
| LVM-2504 | Cloudy Sky | All food contact types | 212° |
| LVM-2505 | Smoky White | All food contact types | 212° |
| LVM-2506 | Cloudy Sand | All food contact types | 212° |
| LVM-2507 | Cloudy Onyx | All food contact types | 212° |
| LVM-2508 | Cloudy Beige | All food contact types | 212° |
| LVM-2509 | Cloudy Dark | All food contact types | 212° |
| LVM-2510 | Cloudy Grey | All food contact types | 212° |
| LVM-2511 | Cloudy Blue | All food contact types | 212° |
| LVM-2512 | Cloudy Green | All food contact types | 212° |
| LVM-2513 | Cloudy Latte | All food contact types | 212° |
| LVM-2514 | Cloudy Earth | All food contact types | 212° |
| LVM-2515 | Cloudy Creamy | All food contact types | 212° |
| LVM-2517 | Cloudy Brown | All food contact types | 212° |
| LVM-2519 | Cloudy Indigo | All food contact types | 212° |
| LVM-2520 | Cloudy Brick | All food contact types | 212° |
| Modified acrylic solid surface LA-803 | Cloud | All food contact types | 212° |
| Modified acrylic solid surface LA-804 | Night Sky | All food contact types | 212° |
| Modified acrylic solid surface LA-805 | Meteor | All food contact types | 212° |
| Modified acrylic solid surface LA-806 | Steel Grey | All food contact types | 212° |
| Modified acrylic solid surface LA-807 | Oyster Grey | All food contact types | 212° |

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| | | | |
|---|---|---|---|
| Modified acrylic solid surface LA-808 | Grass Grey | All food contact types | 212° |
| Modified acrylic solid surface LA-811 | Platinum | All food contact types | 212° |
| Modified acrylic solid surface LA-812 | Ice Queen | All food contact types | 212° |
| Modified acrylic solid surface LA-815 | Metallic Galaxy | All food contact types | 212° |
| Modified acrylic solid surface LA-820 | Colorado | All food contact types | 212° |
| Modified acrylic solid surface LA-837 | Tornado | All food contact types | 212° |
| Modified acrylic solid surface LA-840 | Glimmer | All food contact types | 212° |
| Modified acrylic solid surface LA-841 | Peak | All food contact types | 212° |
| Modified acrylic solid surface LA-873 | Grey Pearl | All food contact types | 212° |
| Modified acrylic solid surface LA-874 | Coffee Bean | All food contact types | 212° |
| Modified acrylic solid surface LM-101 | Black Night | All food contact types | 212° |
| Modified acrylic solid surface LM-102 | Gold Dust | All food contact types | 212° |
| Modified acrylic solid surface LM-103 | Sahara | All food contact types | 212° |
| Modified acrylic solid surface LM-104 | Pearl White | All food contact types | 212° |
| Modified acrylic solid surface LM-105 | Cream | All food contact types | 212° |
| Modified acrylic solid surface LM-106 | Grey | All food contact types | 212° |
| Modified acrylic solid surface LM-109 | Millet | All food contact types | 212° |
| Modified acrylic solid surface LM-130 | Dove | All food contact types | 212° |
| Modified acrylic solid surface LM-170 | Dark Palm | All food contact types | 212° |
| Modified acrylic solid surface LP-301 | Mocha | All food contact types | 212° |
| Modified acrylic solid surface LP-303 | Chocolate | All food contact types | 212° |

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| | | | |
|---|---|---|---|
| Modified acrylic solid surface LP-307 | Frost | All food contact types | 212° |
| Modified acrylic solid surface LP-308 | Corn | All food contact types | 212° |
| Modified acrylic solid surface LP-309 | Milk White | All food contact types | 212° |
| Modified acrylic solid surface LP-319 | Butter | All food contact types | 212° |
| Modified acrylic solid surface LP-320 | Ashley Beige | All food contact types | 212° |
| Modified acrylic solid surface LP-323 | Crystal Beige | All food contact types | 212° |
| Modified acrylic solid surface LP-324 | Sandy | All food contact types | 212° |
| Modified acrylic solid surface LP-325 | Almond | All food contact types | 212° |
| Modified acrylic solid surface LP-326 | Linen | All food contact types | 212° |
| Modified acrylic solid surface LP-328 | Creamy White | All food contact types | 212° |
| Modified acrylic solid surface LP-331 | Limistone | All food contact types | 212° |
| Modified acrylic solid surface LP-340 | Dark Grey | All food contact types | 212° |
| Modified acrylic solid surface LP-343 | Mottled Grey | All food contact types | 212° |
| Modified acrylic solid surface LP-348 | Indigo | All food contact types | 212° |
| Modified acrylic solid surface LP-373 | Savannah | All food contact types | 212° |
| Modified acrylic solid surface LP-385 | Natural Cotton | All food contact types | 212° |
| Modified acrylic solid surface LP-421 | Tundra | All food contact types | 212° |
| Modified acrylic solid surface LP-429 | Cromium Aton | All food contact types | 212° |
| Modified acrylic solid surface LP-442 | Oyster White | All food contact types | 212° |
| Modified acrylic solid surface LP-448 | Ash Grey | All food contact types | 212° |
| Modified acrylic solid surface LP-507 | Sea Wave | All food contact types | 212° |

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| | | | |
|---|---|---|---|
| Modified acrylic solid surface LP-508 | Cubic White | All food contact types | 212° |
| Modified acrylic solid surface LP-509 | Darjeeling | All food contact types | 212° |
| Modified acrylic solid surface LP-510 | Deep Night | All food contact types | 212° |
| Modified acrylic solid surface LS-001 | Black | All food contact types | 212° |
| Modified acrylic solid surface LS-002 | Ivory | All food contact types | 212° |
| Modified acrylic solid surface LS-003 | White | All food contact types | 212° |
| Modified acrylic solid surface LS-004 | Red | All food contact types | 212° |
| Modified acrylic solid surface LS-005 | Orange | All food contact types | 212° |
| Modified acrylic solid surface LS-007 | Sunflower | All food contact types | 212° |
| Modified acrylic solid surface LS-018 | Light White | All food contact types | 212° |
| Modified acrylic solid surface LS-028 | Grey | All food contact types | 212° |
| Modified acrylic solid surface LS-029 | Steel | All food contact types | 212° |

[1] Not intended for direct food contact when used in storage applications.

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**Produkte**
*Products*

TÜVRheinland®

| | | | | |
|---|---|---|---|---|
| **Test Report No.:** *测试报告编号:* | **60363482 002R** | **Order No.:** *订单编号:* | 168156358 | Seite 1 von 5 *Page 1 of 5* |
| **Client Reference No.:** *客户参考编号:* | N/A | **Order date :** *订单日期:* | 16.03.2020 | |
| **Client:** *客户:* | 上海客乐思实业发展有限公司<br>上海宝山区共和新路 5199 号 | | | |
| **Test item:** *测试样品:* | K&L 客乐思® 人造石<br>制造商：山东客乐思新材料科技有限公司 | | | |
| **Identification/Type No:** *产品识别 / 型号:* | K&L 客乐思® 人造石所有系列颜色，厚度 5-30mm | | | |
| **Order content:** *订单内容:* | 一般测试服务 | | | |
| **Test specification:** *测试规范:* | EN 13501-1:2018, B 级 | | | |

| | |
|---|---|
| **Date of receipt:** *收样日期:* | 31.03.2020 |
| **Test sample No.:** *样品编号:* | 2003008 |
| **Testing period:** *测试周期:* | 10.04.2020 - 14.04.2020 |
| **Place of testing:** *测试地点:* | Guangzhou |
| **Testing laboratory:** *测试实验室:* | TÜV Rheinland (Shenzhen) Co., Ltd. Xiamen Branch |
| **Test result*:** *测试结果*:* | 参见下文 |



**tested by / *测试:***

| 29.04.2020 | Dora Long / PE | Dora Long |
|---|---|---|
| **Date** *日期* | **Name / Position** *姓名 / 职位* | **Signature** *签名* |

**reviewed by / *审核:***

| 29.04.2020 | Luke Xu / Reviewer | Luke Xu |
|---|---|---|
| **Date** *日期* | **Name / Position** *姓名 / 职位* | **Signature** *签名* |

**Other / *其他:***

应客户要求，在首页测试样品处添加制造商名称。

本报告为报告 60363482 001R 的中文译本。如有疑问，请以英文原版为准。

**Condition of the test item at delivery :** *接收时样品的状况:* — Test item complete and undamaged *样品完整无损坏*

| * Legend: | 1 = very good | 2 = good | 3 = satisfactory | 4 = sufficient | 5 = poor |
|---|---|---|---|---|---|
| | P(ass) = passed a.m. test specification(s) | | F(ail) = failed a.m. test specification(s) | N/A = not applicable | N/T = not tested |
| *注明:* | *1 = 很好* | *2 = 好* | *3 = 满意* | *4 = 通过* | *5 = 不通过* |
| | *P(ass) = 通过上述测试规范* | | *F(ail) = 不通过上述测试规范* | *N/A = 不适用* | *N/T = 未测试* |

**This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark**

*测试结果只对应上述列出的样品。未经测试中心许可，此测试报告不得复制提取。此测试报告未授权使用任何测试标志。*

v04

TUV Rheinland (Shenzhen) Co., Ltd. East of F/1, F/2~F/4, Building 1, Cybio Technology Building, No. 6 Langshan No.2 Road, North Hi-tech Industry Park, Nanshan District, Shenzhen P.R.China

## List of used test equipment
## 所用设备清单

| Test equipment<br>设备名 | Equipment No. / ID-No.<br>设备型号 / 编号 | Next calibration<br>下次校验日期 |
|---|---|---|
| List of used test equipment could be traceable and provided separately upon request.<br>所使用的测试设备列表可以溯源，并可根据要求另行追溯。 | | |
| | | |
| | | |
|

| Clause | According to client's requirement / 测试内容根据客户要求 | Measuring results - Remarks | Evaluation |
|---|---|---|---|
| 条款 | *Requirements – Tests / 要求 – 测试* | 测试结果 – 注释 | 评判 |

## 试验信息

**1. 试验方法**

本试验按照标准 "EN 13501-1:2018 建筑制品和构件燃烧性能的分级，第一部分：根据燃烧试验的试验数据进行分级，除铺地制品和管状绝热制品外的建筑材料及制品B级"进行；

测试方法如下：

1) EN ISO 11925-2:2010 采用直冲火焰测试建筑产品可燃性，第二部分：单一火源测试
2) EN 13823:2010+A1(2014) 除铺地类外建筑材料及制品的单体燃烧试验

**2. 试样描述**

1) 颜色: 白色
2) 尺寸: 1500*495*12mm, 5pcs；
   1500*1000*12mm, 5pcs (由 1500*500*12mm, 10 pcs 拼接而成)；
   90*250*12mm, 12pcs

**备注： 客户声明其系列产品"K&L® 客乐思人造石所有系列颜色，厚度 5-30mm"与被测样品相同。**

**3. 测试结果**

| 序号 | 测试项目 | | 技术要求 | 测试结果 | 单项评定 |
|---|---|---|---|---|---|
| 1 | 单一火源测试 | 60 s内焰尖高度 Fs [mm] (点火时间 30 s) | ≤ 150 | 31 | B |
| 2 | 单体燃烧试验 | 火焰横向蔓延长度 LFS | < 试样边缘 | < 试样边缘 | |
| | | 燃烧增长速率指数 $FIGRA_{0,2\,MJ}$ [W/s] | ≤ 120 | 33 | |
| | | 600 s内总放热量 $THR_{600\,s}$ [MJ] | ≤ 7.5 | 4.3 | |











| Clause | According to client's requirement / 测试内容根据客户要求 | Measuring results - Remarks | Evaluation |
|---|---|---|---|
| 条款 | *Requirements – Tests / 要求 – 测试* | 测试结果 – 注释 | 评判 |

（续表）

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | 单体燃烧试验 | 产烟特性等级 | 烟气生成速率指数 SMOGRA $[m^2/s^2]$ | s1: SMOGRA ≤ 30<br>s2: SMOGRA ≤ 180<br>s3: 未达s2 | 0 | s1 |
| | | | 600 s总烟气生成量 $TSP_{600\,s}$ $[m^2]$ | s1: $TSP_{600\,s}$ ≤ 50<br>s2: $TSP_{600\,s}$ ≤ 200<br>s3: 未达到s2 | 29 | |
| | | 燃烧滴落物/微粒等级 | | d0：600 s内无燃烧滴落物/微粒；<br>d1：600 s内燃烧滴落物/微粒，持续时间不超过10s；<br>d2：未达到d1 | 600 s内无燃烧滴落物/微粒 | d0 |

结论：所检项目符合标准EN 13501-1:2018对材料B - s1, d0级的技术要求。

**备注：**

检测项目第1至第2项试验结果只与制品的试样在特定试验条件下的性能相关，不能将其作为评价该制品在实际使用中潜在火灾危险性的唯一依据。

**测试报告结束**

**Produkte**
*Products*

TÜVRheinland®

| | | | | |
|---|---|---|---|---|
| **Prüfbericht-Nr.:** *Test Report No.:* | **60363482 001R** | **Auftrags-Nr.:** *Order No.:* | 168156358 | Seite 1 von 5 *Page 1 of 5* |
| **Kunden-Referenz-Nr.:** *Client Reference No.:* | N/A | **Auftragsdatum:** *Order date:* | 16.03.2020 | |
| **Auftraggeber:** *Client:* | Shanghai Kelesi Industry Development Co., Ltd.<br>NO.5199, GONGHEXIN ROAD, BAOSHAN DISTRICT, SHANGHAI | | | |
| **Prüfgegenstand:** *Test item:* | K&L 客乐思® Solid Surface<br>Manufacturer: SHANDONG KELESI NEW MATERIAL TECHOLOGY CO., LTD | | | |
| **Bezeichnung / Typ-Nr.:** *Identification / Type No.:* | K&L 客乐思® Solid surface sheeting in all colors with thickness from 5-30mm | | | |
| **Auftrags-Inhalt:** *Order content:* | General test service | | | |
| **Prüfgrundlage:** *Test specification:* | EN 13501-1:2018, Class B<br>Fire classification of construction products and building elements<br>- Part 1: Classification using data from reaction to fire tests | | | |
| **Wareneingangsdatum:** *Date of receipt:* | 31.03.2020 | | | |
| **Prüfmuster-Nr.:** *Test sample No.:* | 2003008 | | | |
| **Prüfzeitraum:** *Testing period:* | 10.04.2020 - 14.04.2020 | | | |
| **Ort der Prüfung:** *Place of testing:* | Guangzhou | | | |
| **Prüflaboratorium:** *Testing laboratory:* | TÜV Rheinland (Shenzhen) Co., Ltd. Xiamen Branch | | | |
| **Prüfergebnis*:** *Test result*:* | Refer to the following page | | | |



| **geprüft von** / *tested by:* | | | **kontrolliert von** / *reviewed by:* | | |
|---|---|---|---|---|---|
| 29.04.2020 | Dora Long / PE | | 29.04.2020 | Luke Xu / Reviewer | |
| **Datum** *Date* | **Name / Stellung** *Name / Position* | **Unterschrift** *Signature* | **Datum** *Date* | **Name / Stellung** *Name / Position* | **Unterschrift** *Signature* |

**Sonstiges** / *Other:*

The name of manufacturer is added in Test item of coverpage by the request of client.

**Zustand des Prüfgegenstandes bei Anlieferung:** Prüfmuster vollständig und unbeschädigt
*Condition of the test item at delivery:* *Test item complete and undamaged*

| | | | | | |
|---|---|---|---|---|---|
| * Legende: | 1 = sehr gut | 2 = gut | 3 = befriedigend | 4 = ausreichend | 5 = mangelhaft |
| | P(ass) = entspricht o.g. Prüfgrundlage(n) | | F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | N/A = nicht anwendbar | N/T = nicht getestet |
| *Legend:* | *1 = very good* | *2 = good* | *3 = satisfactory* | *4 = sufficient* | *5 = poor* |
| | *P(ass) = passed a.m. test specification(s)* | | *F(ail) = failed a.m. test specification(s)* | *N/A = not applicable* | *N/T = not tested* |

**Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.**
*This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.*
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**Produkte**
*Products*

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**Prüfbericht-Nr.: 60363482 001R** Seite 2 von 5
*Test Report No.:* *Page 2 of 5*

**Liste der verwendeten Prüfmittel**
***List of used test equipment***

| **Prüfmittel** *Test equipment* | **Prüfmittel-Nr. / ID-Nr.** *Equipment No. / ID-No.* | **Nächste Kalibrierung** *Next calibration* |
|---|---|---|
| List of used test equipment could be traceable and provided separately upon request. | | |
| | | |
| | | |
|

## Produktbeschreibung
## *Product description*

| | | |
|---|---|---|
| 1 | **Produktdetails**<br>*Product details* | K&L 客乐思® Solid surface sheeting in all colors with thickness from 5-30mm |
| 2 | **Maße / Gewicht**<br>*Dimensions / Weight* | N/A |
| 3 | **Bedienelemente**<br>*Operating elements* | N/A |
| 4 | **Ausstattung / Zubehör**<br>*Equipment / Accessories* | N/A |
| 5 | **Verwendete Materialien**<br>*Used materials* | N/A |
| 6 | **Sonstiges**<br>*Other* | N/A |
| | | |
| |  | N/A |
| | | |
| N/A | | N/A |







| Absatz | Selected test(s) as requested by client | Messergebnisse - Bemerkungen | Bewertung |
|---|---|---|---|
| *Clause* | Anforderungen - Prüfungen / *Requirements - Tests* | *Measuring results - Remarks* | *Evaluation* |

## Test Information

**1. Test conducted**

This test is conducted as per EN 13501-1:2018 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests, Class B for construction products excluding floorings and linear pipe thermal insulation products.

And the test methods as following:

1) EN ISO 11925-2:2010 Reaction to fire tests — Ignitability of products subjected to direct impingement of flame Part 2: Single-flame source test
2) EN 13823:2010+A1(2014) Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.

**2. Sample description**

1) Color: White
2) Size: 1500*495*12mm, 5pcs;
   1500*1000*12mm, 5pcs (made of 1500*500*12mm, 10 pcs);
   90*250*12mm, 12pcs

**Remark: Client declared the series models "K&L 客乐思® Solid surface sheeting in all colors with thickness from 5-30mm" were identical with the tested model.**

**3. Test result**

| No. | Test Item | | Requirements | Test results | Individual classification |
|---|---|---|---|---|---|
| 1 | Ignitability of products subjected to direct impingement of flame Part 2: Single-flame source test | Fs (mm) (Exposure = 30 s) | Fs ≤ 150 mm within 60 s | 31 | B |
| 2 | Building products excluding floorings exposed to the thermal attack by a single burning item | LFS | LFS < edge of specimen | < edge of specimen | |
| | | FIGRA (W/s) | $FIGRA_{0,2\ MJ}$ ≤ 120 | 33 | |
| | | $THR_{600\ s}$ (MJ) | $THR_{600\ s}$ ≤ 7.5 | 4.3 | |

**Produkte**
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**Prüfbericht-Nr.: 60363482 001R**
*Test Report No.:*



| Absatz | Selected test(s) as requested by client | Messergebnisse - Bemerkungen | Bewertung |
|---|---|---|---|
| *Clause* | Anforderungen - Prüfungen / *Requirements - Tests* | *Measuring results - Remarks* | *Evaluation* |

(Continued)

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Building products excluding floorings exposed to the thermal attack by a single burning item | Smoke production | SMOGRA ( $m^2/s^2$) | s1: SMOGRA ≤ 30<br>s2: SMOGRA ≤ 180<br>s3: not s1 or s2 | 0 | s1 |
| | | | $TSP_{600\ s}$ ($m^2$) | s1: $TSP_{600\ s}$ ≤ 50<br>s2: $TSP_{600\ s}$ ≤ 200<br>s3: not s1 or s2 | 29 | |
| | | Flaming droplets/particles | | d0: no flaming droplets/ particles within 600 s;<br>d1: no flaming droplets/ particles persisting longer than 10 s within 600 s;<br>d2: not d0 or d1. | No flaming droplets/ particles within 600 s | d0 |

**Conclusion:** The sample tested conformed to the requirement of Class B and additional requirement of Class s1, d0 in EN 13501-1: 2018 Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products.

Remark:
LFS — Lateral flame spread
FIGRA — Fire growth rate index used for classification purposes [W/s]
$THR_{600\ s}$ — Total heat release within 600 s [MJ]
SMOGRA — Smoke growth rate [$m^2/s^2$]
$TSP_{600\ s}$ — Total smoke production within 600 s [$m^2$]
Fs — Flame spread [mm]

**Statement:**
The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.

**END OF TEST REPORT**







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国际互认
检测
TESTING
CNAS L1049

# 检 验 报 告

报告编号 2022(X)12009

样品名称 复合亚克力实体面材 LS-003

委托单位 山东客乐思新材料科技有限公司

检验类别 委托检验

国家化学建筑材料测试中心（材料测试部）
中国石油化工股份有限公司北京化工研究院

国家化学建筑材料测试中心
（材料测试部）
检测专用章

全 球 实 体 面 材 创 新 者
Global Innovator Of Solid Surface

国家化学建筑材料测试中心
NATIONAL TEST CENTER

CMA 220020349451 | IAC-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12009　　共 5 页 第 1 页

| | | | |
|---|---|---|---|
| 委托单位 | 山东客乐思新材料科技有限公司 | 检验类别 | 委托检验 |
| 生产单位* | 山东客乐思新材料科技有限公司 | 生产日期* | / |
| 样品名称* | 复合亚克力实体面材 LS-003 | 注册商标* | K&L 客乐思 |
| 样品规格* | / | 样品外观及制备 | 白色 自带试样 |
| 抽样基数 | / | 样品标识 | X-202211024 |
| 抽样数量 | / | 产品批号*/产品编号* | / |
| 封样地点 | / | 委托日期 | 2022.11.14 |
| 封样单位 | / | 封样日期 | / |
| 检验结论 | 所检样品根据委托单位要求的检验项目及相应的行业标准进行检验，并按照 JC/T 908-2013“人造石”中实体面材要求进行判定，所检结果详见第 2～5 页。<br>签发日期：2022 年 12 月 26 日 | | |
| 备　注 | / | | |

批准：武鹏　　审核：刘冬冬

国家化学建筑材料测试中心
NATIONAL TEST CENTER

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# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12009　　共 5 页 第 2 页

| 序号 | 检验项目 | | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|---|
| 1 | 外观质量 | 色泽 | 色泽均匀一致，不得有明显色差 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 板边 | 板边四面平整，表面不得有缺棱掉角现象 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 花纹图案 | 图案清晰、花纹明显；对花纹图案的特殊要求由供需双方商定 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 表面 | 光滑平整，无波纹、方料痕、刮痕、裂纹，不允许有气泡、杂质 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 拼接 | 拼接不得有缝隙 | 通过 | 符合 | JC/T 908-2013 7.2 |
| 2 | 巴氏硬度 | | UPR类：≥55 | 63 | 符合 | JC/T 908-2013 7.3 |
| 3 | 冲击韧性，$kJ/m^2$ | | ≥4 | 4.0（C） | 符合 | JC/T 908-2013 7.5.2 |
| 4 | 荷载性能 | | 试验后，表面不得有破裂，最大残余挠度值不超过0.25mm | 0.13mm 通过 | 符合 | JC/T 908-2013 附录B |
| 5 | 落球冲击 | | 表面无破损（450g，1200mm） | B级 表面无破损 | 符合 | JC/T 908-2013 7.7 |
| 6 | 弯曲强度，MPa | | ≥40 | 49.6 | 符合 | JC/T 908-2013 7.8 |
| 7 | 弯曲弹性模量，MPa | | ≥6500 | $10.9\times10^3$ | 符合 | JC/T 908-2013 7.8 |
| 8 | 耐磨性，g | | ≤0.6 | 0.512 | 符合 | JC/T 908-2013 附录C |
| 主检：任雪剑　苏肖群　薛燕波 | | | | | | |

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# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12009　　共 5 页 第 3 页

| 序号 | 检验项目 | | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|---|
| 9 | 线性膨胀系数，℃$^{-1}$ | 横向 | ≤5.0×10$^{-5}$ | 4.8×10$^{-5}$ | 符合 | JC/T 908-2013 附录D |
| | | 纵向 | ≤5.0×10$^{-5}$ | 4.8×10$^{-5}$ | 符合 | JC/T 908-2013 附录D |
| 10 | 色牢度及老化性能 | | 老化后不得呈现任何破裂、裂缝、气泡或表面质感变化，与控制样品间的色差不超过2CIE单位 | 0.68 | 符合 | JC/T 908-2013 7.12 |
| 11 | 耐污染性 | | 耐污染值总和不超过64，最大污迹深度不大于0.12mm | 50 | 符合 | JC/T 908-2013 附录E |
| 12 | 耐香烟燃烧性 | | 样品在与香烟接触过程中或在此之后，不得有明火燃烧或阴燃。任何形式的损坏不得影响产品的使用性，并可通过研磨剂和抛光剂大致恢复原状。 | 通过 | 符合 | JC/T 908-2013 7.16.1 |
| 13 | 氧指数，% | | ≥40 | 49.5 | 符合 | JC/T 908-2013 7.16.2 |

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主检：任雪剑　苏肖群　薛燕波

国家化学建筑材料测试中心
NATIONAL TEST CENTER

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# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12009　　共 5 页 第 4 页

| 序号 | 检验项目 | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|
| 14 | 耐化学药品性 | 试样表面应无明显损伤，轻度损伤用600目砂纸轻擦即可除去，损伤程度应不影响板材的使用性，并已恢复至原状。 | 通过 | 符合 | JC/T 908-2013 附录F |
| 15 | 耐热性 | 试样表面无破裂、裂缝或起泡。任何变色采用研磨剂或抛光剂可除去并接近板材原状，并不影响板材的使用。 | 通过 | 符合 | JC/T 908-2013 7.18 |
| 16 | 耐高温性 | 试样表面无破裂、裂缝或鼓泡等明显影响。表面缺陷易打磨恢复至原状，并不影响板材的使用。 | 通过 | 符合 | JC/T 908-2013 附录G |

注：以上检验项目试验地点为通州分场所。

（ 接 下 页 ）

主检：任雪剑　苏肖群　薛燕波

国家化学建筑材料测试中心
NATIONAL TEST CENTER

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# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12009　　共 5 页 第 5 页

| 序 号 | 检 验 项 目 | 技术要求（A类） | 检验结果 | 单项判定 | 检 验 方 法 |
|---|---|---|---|---|---|
| 1 | 内照射系数 $I_{Ra}$ | ≤1.0 | <0.1 | 符合 | GB 6566-2010 |
| 2 | 外照射系数 $I_{\gamma}$ | ≤1.3 | <0.1 | 符合 | GB 6566-2010 |

结论：所检产品按照GB 6566-2010“建筑材料放射性核素限量”进行检验，全部检验结果达到该标准A类装修材料要求。

注：1、A类装修材料产销与使用范围不受限制；

2、以上检验项目试验地点为通州分场所。

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主检：薛燕波　高昂





CMA 220020349451 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 检 验 报 告

报告编号 2022(X)12010

样品名称 亚克力实体面材 KS-003

委托单位 山东客乐思新材料科技有限公司

检验类别 委托检验

国家化学建筑材料测试中心（材料测试部）
中国石油化工股份有限公司北京化工研究院

全球实体面材创新者
Global Innovator Of Solid Surface

国家化学建筑材料测试中心
NATIONAL TEST CENTER

CMA 220020349451 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 国家化学建筑材料测试中心

## （材料测试部）

## 检 验 报 告

报告编号：2022(X)12010　　共 5 页 第 1 页

| | | | |
|---|---|---|---|
| 委托单位 | 山东客乐思新材料科技有限公司 | 检验类别 | 委托检验 |
| 生产单位* | 山东客乐思新材料科技有限公司 | 生产日期* | / |
| 样品名称* | 亚克力实体面材 KS-003 | 注册商标* | K&L 客乐思 |
| 样品规格* | / | 样品外观及制备 | 白色 自带试样 |
| 抽样基数 | / | 样品标识 | X-202211025 |
| 抽样数量 | / | 产品批号*/产品编号* | / |
| 封样地点 | / | 委托日期 | 2022.11.14 |
| 封样单位 | / | 封样日期 | / |
| 检验结论 | 所检样品根据委托单位要求的检验项目及相应的行业标准进行检验，并按照 JC/T 908-2013“人造石”中实体面材要求进行判定，所检结果详见第 2～5 页。<br>签发日期：2022 年 12 月 26 日 | | |
| 备　注 | / | | |

批准：　　审核：



国家化学建筑材料测试中心
NATIONAL TEST CENTER

CMA 220020349451 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 国家化学建筑材料测试中心

## （材料测试部）

## 检 验 报 告

报告编号：2022(X)12010　　共 5 页 第 2 页

| 序号 | 检验项目 | | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|---|
| 1 | 外观质量 | 色泽 | 色泽均匀一致，不得有明显色差 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 板边 | 板边四面平整，表面不得有缺棱掉角现象 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 花纹图案 | 图案清晰、花纹明显；对花纹图案的特殊要求由供需双方商定 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 表面 | 光滑平整，无波纹、方料痕、刮痕、裂纹，不允许有气泡、杂质 | 通过 | 符合 | JC/T 908-2013 7.2 |
| | | 拼接 | 拼接不得有缝隙 | 通过 | 符合 | JC/T 908-2013 7.2 |
| 2 | 巴氏硬度 | | PMMA类：≥65 | 65 | 符合 | JC/T 908-2013 7.3 |
| 3 | 冲击韧性，$kJ/m^2$ | | ≥4 | 4.1（C） | 符合 | JC/T 908-2013 7.5.2 |
| 4 | 荷载性能 | | 试验后，表面不得有破裂，最大残余挠度值不超过0.25mm | 0.08mm 通过 | 符合 | JC/T 908-2013 附录B |
| 5 | 落球冲击 | | 表面无破损（450g，2000mm） | A级 表面无破损 | 符合 | JC/T 908-2013 7.7 |
| 6 | 弯曲强度，MPa | | ≥40 | 59.7 | 符合 | JC/T 908-2013 7.8 |
| 7 | 弯曲弹性模量，MPa | | ≥6500 | $1.01\times10^4$ | 符合 | JC/T 908-2013 7.8 |
| 8 | 耐磨性，g | | ≤0.6 | 0.500 | 符合 | JC/T 908-2013 附录C |
| 主检：任雪剑　苏肖群　薛燕波 | | | | | | |

全球实体面材创新者
Global Innovator Of Solid Surface

国家化学建筑材料测试中心
NATIONAL TEST CENTER

CMA 220020349451 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12010　　共 5 页 第 3 页

| 序号 | 检验项目 | | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|---|
| 9 | 线性膨胀系数，℃$^{-1}$ | 横向 | ≤5.0×10$^{-5}$ | 4.5×10$^{-5}$ | 符合 | JC/T 908-2013 附录D |
| | | 纵向 | ≤5.0×10$^{-5}$ | 4.5×10$^{-5}$ | 符合 | JC/T 908-2013 附录D |
| 10 | 色牢度及老化性能 | | 老化后不得呈现任何破裂、裂缝、气泡或表面质感变化，与控制样品间的色差不超过2CIE单位 | 1.2 | 符合 | JC/T 908-2013 7.12 |
| 11 | 耐污染性 | | 耐污染值总和不超过64，最大污迹深度不大于0.12mm | 43 | 符合 | JC/T 908-2013 附录E |
| 12 | 耐香烟燃烧性 | | 样品在与香烟接触过程中或在此之后，不得有明火燃烧或阴燃。任何形式的损坏不得影响产品的使用性，并可通过研磨剂和抛光剂大致恢复原状。 | 通过 | 符合 | JC/T 908-2013 7.16.1 |
| 13 | 氧指数，% | | ≥40 | 40.5 | 符合 | JC/T 908-2013 7.16.2 |

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主检：任雪剑　苏肖群　薛燕波

国家化学建筑材料测试中心
NATIONAL TEST CENTER

CMA 220020349451 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1049

# 国家化学建筑材料测试中心
## （材料测试部）
## 检 验 报 告

报告编号：2022(X)12010　　共 5 页 第 4 页

| 序号 | 检验项目 | 技术要求 | 检验结果 | 单项判定 | 检验方法 |
|---|---|---|---|---|---|
| 14 | 耐化学药品性 | 试样表面应无明显损伤，轻度损伤用600目砂纸轻擦即可除去，损伤程度应不影响板材的使用性，并已恢复至原状。 | 通过 | 符合 | JC/T 908-2013 附录F |
| 15 | 耐热性 | 试样表面无破裂、裂缝或起泡。任何变色采用研磨剂或抛光剂可除去并接近板材原状，并不影响板材的使用。 | 通过 | 符合 | JC/T 908-2013 7.18 |
| 16 | 耐高温性 | 试样表面无破裂、裂缝或鼓泡等明显影响。表面缺陷易打磨恢复至原状，并不影响板材的使用。 | 通过 | 符合 | JC/T 908-2013 附录G |

注：以上检验项目试验地点为通州分场所。

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主检：任雪剑　苏肖群　薛燕波

国家化学建筑材料测试中心
NATIONAL TEST CENTER

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中国认可
国际互认
检测
TESTING
CNAS L1049

# 国家化学建筑材料测试中心

## （材料测试部）

## 检 验 报 告

报告编号：2022(X)12010　　共 5 页 第 5 页

| 序 号 | 检 验 项 目 | 技术要求（A类） | 检验结果 | 单项判定 | 检 验 方 法 |
|---|---|---|---|---|---|
| 1 | 内照射系数 $I_{Ra}$ | ≤1.0 | <0.1 | 符合 | GB 6566-2010 |
| 2 | 外照射系数 $I_{\gamma}$ | ≤1.3 | <0.1 | 符合 | GB 6566-2010 |

结论：所检产品按照GB 6566-2010“建筑材料放射性核素限量”进行检验，全部检验结果达到该标准A类装修材料要求。

注：1、A类装修材料产销与使用范围不受限制；

2、以上检验项目试验地点为通州分场所。

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国家化学建筑材料测试中心（材料测试部）检测专用章

主检：薛燕波　高昂



# 合规证书

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS
UL.COM/GC
UL 2818

山东客乐思新材料科技有限公司

产品列表如下

UL 2818 - 2022 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

合规证书

# 合规证书

## UL GREENGUARD 认证产品列表

| 产品名称 | 认证 | 状态 | 证书编号 | 认证有效期 | 限制 |
|---|---|---|---|---|---|
| KELESI - Acrylic Solid Surface | GREENGUARD Certified | Certified | 306545-410 | 2023.07.06-2025.07.06 | |

有关完整的合规信息，请参阅 https://spot.ul.com 上的当前证书。

UL 根据协议对KAL与客户之间的任何适用的项目服务条款或财产协议内，根据已确定的标准或其他要求，对所识别的产品，工艺或设施的代表性样品进行评估，根据协议条款，客户被授权在本证书涵盖的已识别产品，工艺或设施上使用KAL标志。本证书在有效期内一直生效，除非存在不符合本协议的情况。本证书可由KAL撤销。请登录SPOT.ul.com以验证本证书的有效性。

合规证书

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS
UL.COM/GG
UL 2818
GOLD

山东客乐思新材料科技有限公司

产品列表如下

UL 2818 - 2022 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

UL 根据协议对KAL与客户之间的任何适用的项目服务条款或财产协议内，根据已确定的标准或其他要求，对所识别的产品，工艺或设施的代表性样品进行评估，根据协议条款，客户被授权在本证书涵盖的已识别产品，工艺或设施上使用KAL标志。本证书在有效期内一直生效，除非存在不符合本协议的情况。本证书可由KAL撤销。请登录SPOT.ul.com以验证本证书的有效性。



合规证书

产品根据 UL 2821 测试方法进行测试，以显示符合 UL 2818 Section 7.1 和 7.2 的排放限制。

使用室温和室温预期 ANSI/BIFMA M7.1-2011 进行测试，并确定符合 ANSI/BIFMA X7.1-2011 和 ANSI/BIFMA e3-2014a Credit 7.6.1、7.6.2 和 7.6.3，基于美国的工作场所建筑在开放式隔板环境中。Cawgood 系统和个人实践用综合私人办公环境中进行建模。该特产品在该特环境中建模。数据实践使用标准建模加州公共卫生部 (CDPH) 标准方法 v1.2 中的通道模型。

根据加州公共卫生部 (CDPH) 标准方法 V1.1-2010，使用适用的卓越替换确定建筑产品符合要求。

UL 根据协议对KAL与客户之间的任何适用的项目服务条款或财产协议内，根据已确定的标准或其他要求，对所识别的产品，工艺或设施的代表性样品进行评估，根据协议条款，客户被授权在本证书涵盖的已识别产品，工艺或设施上使用KAL标志。本证书在有效期内一直生效，除非存在不符合本协议的情况。本证书可由KAL撤销。请登录SPOT.ul.com以验证本证书的有效性。

合规证书

## UL GREENGUARD 金级认证产品列表

| 产品名称 | 认证 | 状态 | 证书编号 | 认证有效期 | 限制 |
|---|---|---|---|---|---|
| KELESI - Acrylic Solid Surface | GREENGUARD Gold Certified | Certified | 306545-426 | 2023.07.06-2025.07.06 | |

有关完整的合规信息，请参阅 https://spot.ul.com 上的当前证书。

UL 根据协议对KAL与客户之间的任何适用的项目服务条款或财产协议内，根据已确定的标准或其他要求，对所识别的产品，工艺或设施的代表性样品进行评估，根据协议条款，客户被授权在本证书涵盖的已识别产品，工艺或设施上使用KAL标志。本证书在有效期内一直生效，除非存在不符合本协议的情况。本证书可由KAL撤销。请登录SPOT.ul.com以验证本证书的有效性。

# CERTIFICATE
## OF COMPLIANCE

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818
GOLD

**Shandong Kelesi New Material Technology Co.,Ltd.**

KELESI - Acrylic Solid Surface

306545-420
Certificate Number

06 Jul 2023 - 06 Jul 2025
Certificate Period

Certified
Status

UL 2818 - 2022 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Building products and interior finishes are determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.2-2017 using an Office and Classroom Environment.
Product tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1 and 7.2.

UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement.

### GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

| Criteria | CAS Number | Maximum Allowable Predicted Concentration | Units |
|---|---|---|---|
| TVOC [A] | - | 0.22 | mg/m³ |
| Formaldehyde | 50-00-0 | 9 (7.3 ppb) | µg/m³ |
| Total Aldehydes [B] | - | 0.043 | ppm |
| 4-Phenylcyclohexene | 4994-16-5 | 6.5 | µg/m³ |
| Particle Matter less than 10 µm [C] | - | 20 | µg/m³ |
| 1-Methyl-2-pyrrolidinone [D] | 872-50-4 | 160 | µg/m³ |
| Individual VOCs [E] | - | s/2 CREL or 1/100th TLV | - |

(A) Defined to be the total response of measured VOCs falling within the C6 – C16 range, with responses calibrated to a toluene surrogate. Maximum allowable predicted TVOC concentrations for GREENGUARD Gold (0.22 mg/m³) fall in the range of 0.5 mg/m³ or less, as specified in CDPH Standard Method v1.2.

(B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.

(C) Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.

(D) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m³/day

(E) Allowable levels for chemicals not listed are derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/ECLB/Standard Method v1.2 and BIFMA level credit 7.6.2 and 1/100th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).

UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement.





# CERTIFICATE
## OF COMPLIANCE

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818

**Shandong Kelesi New Material Technology Co.,Ltd.**

KELESI - Acrylic Solid Surface

306545-410
Certificate Number

06 Jul 2023 - 06 Jul 2025
Certificate Period

Certified
Status

UL 2818 - 2022 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Building materials are determined compliant in accordance with an Office environment with an air change of 0.68 $hr^{-1}$ and a loading of 8.30 $m^2$.
Products tested in accordance with UL 2821 test method to show compliance to emission limits in UL 2818, Section 7.1.

UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement.

### GREENGUARD Certification Criteria for Building Products and Interior Finishes

| Criteria | CAS Number | Maximum Allowable Predicted Concentration | Units |
|---|---|---|---|
| TVOC [A] | - | 0.50 | mg/m³ |
| Formaldehyde | 50-00-0 | 61.3 (50 ppb) | µg/m³ |
| Total Aldehydes [B] | - | 0.10 | ppm |
| Particle Matter less than 10 µm [C] | - | 50 | µg/m³ |
| 4-Phenylcyclohexene | 4994-16-5 | 6.5 | µg/m³ |
| Individual VOCs [D] | - | 1/10th TLV | - |

(A) Defined to be the total response of measured VOCs falling within the C6 – C16 range, with responses calibrated to a toluene surrogate. Maximum allowable predicted TVOC concentrations for GREENGUARD (0.50 mg/m³) fall in the range of 0.5 mg/m³ or less, as specified in CDPH Standard Method v1.2.

(B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.

(C) Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.

(D) Allowable levels for chemicals not listed are derived from 1/10th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).

UL investigated representative samples of the identified Product(s) to the identified Standard(s) or other requirements in accordance with the agreements and any applicable program service terms in place between UL and the Certificate Holder (collectively "Agreement"). The Certificate Holder is authorized to use the UL Mark for the identified Product(s) manufactured at the production site(s) covered by the UL Test Report, in accordance with the terms of the Agreement. This Certificate is valid for the identified dates unless there is non-compliance with the Agreement.

Date Issued: May 22, 2024
Product ID#: 1002288296-7111714
Test Report #: 1002288296-7111714
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UL Solutions

## GREENGUARD CERTIFICATION TEST REPORT

| | | | | | |
|---|---|---|---|---|---|
| **Customer Information** | Shandong Kelesi New Material Technology Co., Ltd.<br>Yansong Gao<br>No.2688, Yinglong Road, Linqu County<br>Weifang Shandong 262600<br>China | | | | |
| **Product Description** | KELESI-Acrylic Solid Surface | | | | |
| **Test Group** | Surfacing Material - 01 | | | | |
| **Category** | Surfacing Materials | | | | |
| **Test Type** | Certification | Year 2 | | | |
| **Test Method** | UL 2821, UL GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions From Building Materials, Finishes and Furnishings, Edition 2, Revision Date 8/24/2022 | | | | |
| | **Environment** | **TVOC** | **Formaldehyde** | **Total Aldehydes** | **CREL/TLV** |
| **GREENGUARD** | Office | ✓ | ✓ | ✓ | ✓ |
| **GREENGUARD Gold** | Office | ✓ | ✓ | ✓ | ✓ |
| | Classroom | ✓ | ✓ | ✓ | ✓ |
| ✓ - meets criteria; X - over criteria | | | | | |
| **Authorized by** | Ring Zhong<br>Ring Zhong<br>Operations Leader | | | | |

## MODELING FOR PREDICTED AIR CONCENTRATION

| Certification Program | Environment Basis | Modeling Basis | Surface Area ($m^2$) | Room Volume ($m^3$) | ACH (1/hr) |
|---|---|---|---|---|---|
| GREENGUARD and GREENGUARD Gold Office | CDPH/EHLB/Standard Method | wall | 33.4 | 30.6 | 0.68 |
| GREENGUARD Gold Classroom | CDPH/EHLB/Standard Method | wall | 94.6 | 231 | 0.82 |

Note that certain environments and/or modeling scenarios may prevent assessment of low level CREL and TLV analytes due to the emissions being below the lower LOQ (0.04 µg). For example, benzene ⅓ CREL is 1.5 µg/m³.

## PHOTOGRAPH OF SAMPLE





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Date Issued: May 22, 2024
Product ID#: 1002288296-7111714
Test Report #: 1002288296-7111714
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## GREENGUARD RESULTS SUMMARY

| **Product Description** | KELESI-Acrylic Solid Surface | | |
|---|---|---|---|
| **GREENGUARD Acceptable IAQ Criteria** | | **168 Hour Product Measurement** | **Product Compliance for IAQ** |
| TVOC[a] | ≤ 0.5 mg/m³ | 0.078 mg/m³ | Yes |
| Formaldehyde | ≤ 0.05 ppm | < 0.003 ppm | Yes |
| Total Aldehydes[b] | ≤ 0.10 ppm | < 0.003 ppm | Yes |
| 4-Phenylcyclohexene | ≤ 0.0065 mg/m³ | < 0.003 mg/m³ | Yes |
| Individual VOCs | all ≤ 1/10 TLV | ----------[c] | Yes |

[a] "TVOC" is the sum of all VOCs measured via TD/GC/MS which elute between n-hexane ($C_6$) and n-hexadecane ($C_{16}$) quantified using calibration to a toluene surrogate.
[b] "Total Aldehydes" is the sum of all measured normal aldehydes from formaldehyde to nonanal, plus benzaldehyde. Heptanal through nonanal are analyzed using TD/GC/MS. The remaining aldehydes are analyzed using HPLC/UV methodology. All aldehydes are quantified to authentic standards.
[c] All individual VOCs detected met the criteria of less than 1/10 the ACGIH established threshold limit values (TLVs).

## PROJECT DESCRIPTION

This study was conducted using a UL Environment's GREENGUARD test method following the requirements of GREENGUARD Certification program. The product was monitored for emissions of total volatile organic compounds (TVOC), formaldehyde, target list aldehydes, and other individual volatile organic compounds (VOCs) over a 168-hour exposure period. These emissions were measured, and the resultant air concentrations were determined for each of the potential pollutants. Determination of compliance is based on predicted air concentrations modeled using the GREENGUARD program room loading.

Report Outline:


| | |
|---|---|
| Table 1 | Environmental Chamber Study Parameters |
| Table 2 | Emission Factors and Predicted Air Concentrations |
| Table 3 | Chamber Concentrations of Identified VOCs |
| Table 4 | Emission Factors of Identified VOCs |
| Table 5 | Chamber Concentrations of Target List Aldehydes |
| Table 6 | Emission Factor of Target List Aldehydes |
| Table 7 | Supplemental Emissions Information |
| Chain of Custody | Chain of Custody |
| Appendix 1 | GREENGUARD Gold Results Summary |


Download more information regarding UL's technical references and resources, product evaluation methodologies information, quality control program, and environmental chamber evaluations from our website click here or https://www.ul.com/offerings/greenguard-certification

For RSD, Quality Assurance Report or other quality documents, Request here or contact ULE.



This report shall not be reproduced, except in full, without permission from UL. Results contained within this report only apply to the actual product tested under the testing conditions documented in this report.

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CMA 201819000883 | ilac-MRA | CNAS 中国认可 国际互认 检测 TESTING CNAS L1747 | CIAA 推荐实验室

# 广东省微生物分析检测中心

GUANGDONG DETECTION CENTER OF MICROBIOLOGY

# 分 析 检 测 报 告

REPORT FOR ANALYSIS

**报 告 编 号** **Report №.** 2024FM07448R01D

**样 品 名 称** **Name of Sample** 客乐思复合亚克力实体面材 KELESI MODIFIED ACRYLIC SOLID SURFACE

**委 托 单 位** **Applicant** 山东客乐思新材料科技有限公司 Shandong Kelesi New Material Technology Co., Ltd.

**检 测 类 型** **Test Type** 委托检测 Entrustment Test

**单位地址：** 广州市先烈中路 100 号大院 66 号楼
**Address:** Building 66, No. 100, Xianlie Middle Road, Guangzhou, China
**邮政编码：** 510070
**Postcode:**
**电话号码：** (020)87137666
**Tel:**
**传真号码：** (020)87137668
**Fax:**
**网 址：** www.gddcm.com
**Website:**



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GUANGDONG DETECTION CENTER OF MICROBIOLOGY

分 析 检 测 报 告

REPORT FOR ANALYSIS

报告编号（Report №.）2024FM07448R01D 校验码（Verification Code）：H344UXAA

| | | | |
|---|---|---|---|
| 样品名称 Name of Sample | 客乐思复合亚克力实体面材 KELESI MODIFIED ACRYLIC SOLID SURFACE | 检测类型 Test Type | 委托检测 Entrustment Test |
| 委托单位 Applicant | 山东客乐思新材料科技有限公司 Shandong Kelesi New Material Technology Co., Ltd. | 地 址 Address | 山东省潍坊市临朐县龙山高新技术产业园 2688 号 No. 2688 Yinglong Road, Longshan High-tech Industrial Park, Linqu County, Weifang City, Shandong Province |
| 样品来源 Sample Source | 委托方送检 Submitted for Testing by the Applicant | 样品数量 Sample Quantity | 36 片 36pcs |
| 样品规格和批号 Spec and Lot № of Sample | 50mm×50mm×6mm | 样品状态和特性 State and Characteristic | 片状 Flaky |
| 接样日期 Sample Received Date | 2024-04-24 | 验讫日期 Completion Date | 2024-05-10 |
| 检测项目 Item Tested | 抗菌性能 Antibacterial effectiveness | | |
| 检测依据和方法 Test Standard and Method | GB/T 31402-2015 | | |
| 检测结论 Test Conclusion | 经检验，该样品对大肠杆菌（ATCC 8739）、金黄色葡萄球菌（ATCC 6538P）、白色念珠菌（ATCC 10231）、肺炎克雷伯氏菌（ATCC 4352）、铜绿假单胞菌（ATCC 9027）和鼠伤寒沙门氏菌（NICPBP 50115）的抗菌性能值分别为>5.7（抗菌率>99.9%）、>5.2（抗菌率>99.9%）、3.2（抗菌率 99.9%）、>4.7（抗菌率>99.9%）、>5.6（抗菌率>99.9%）和>5.6（抗菌率>99.9%）。<br>The results showed that the antibacterial properties value of the sample against *Escherichia coli* (ATCC 8739) and *Staphylococcus aureus* (ATCC 6538P) were >5.7（antibacterial rate >99.9%）,>5.2（antibacterial rate>99.9%）,3.2（antibacterial rate 99.9%）,>4.7（antibacterial rate>99.9%）,>5.6（antibacterial rate>99.9%）and >5.6（antibacterial rate>99.9%）, respectively.<br>签发日期：2024-05-10 Issue Date<br>（机构盖章 Official Seal） | | |
| 备注 Remarks | 生产厂家：山东客乐思新材料科技有限公司，地址：山东省潍坊市临朐县龙山高新技术产业园 2688 号。（由委托方提供）<br>Manufacturer: Shandong Kelesi New Material Technology Co., Ltd. Address: No. 2688 Yinglong Road, Longshan High-tech Industrial Park, Linqu County, Weifang City, Shandong Province. (provided by the applicant) | | |

**制 表：** Editor **审 核：** Verifier **批 准：** Approver

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# 广东省微生物分析检测中心

GUANGDONG DETECTION CENTER OF MICROBIOLOGY

# 分 析 检 测 报 告

REPORT FOR ANALYSIS

**报 告 编 号** **Report №.** 2024FM07449R01D

**样 品 名 称** **Name of Sample** 客乐思复合亚克力实体面材 KELESI MODIFIED ACRYLIC SOLID SURFACE

**委 托 单 位** **Applicant** 山东客乐思新材料科技有限公司 Shandong Kelesi New Material Technology Co., Ltd.

**检 测 类 型** **Test Type** 委托检测 Entrustment Test

**单位地址：** 广州市先烈中路 100 号大院 66 号楼
**Address:** Building 66, No. 100, Xianlie Middle Road, Guangzhou, China
**邮政编码：** 510070
**Postcode:**
**电话号码：** (020)87137666
**Tel:**
**传真号码：** (020)87137668
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**Website:**





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GUANGDONG DETECTION CENTER OF MICROBIOLOGY

分 析 检 测 报 告

REPORT FOR ANALYSIS

报告编号（Report №.）2024FM07449R01D 校验码（Verification Code）：5M96VCLW

| | | | |
|---|---|---|---|
| 样品名称 Name of Sample | 客乐思复合亚克力实体面材 KELESI MODIFIED ACRYLIC SOLID SURFACE | 检测类型 Test Type | 委托检测 Entrustment Test |
| 委托单位 Applicant | 山东客乐思新材料科技有限公司 Shandong Kelesi New Material Technology Co., Ltd. | 地 址 Address | 山东省潍坊市临朐县龙山高新技术产业园 2688 号 No. 2688 Yinglong Road, Longshan High-tech Industrial Park, Linqu County, Weifang City, Shandong Province |
| 样品来源 Sample Source | 委托方送检 Submitted for Testing by the Applicant | 样品数量 Sample Quantity | 36 片 36 pcs |
| 样品规格和批号 Spec and Lot №. of Sample | 50mm×50mm×6mm | 样品状态和特性 State and Characteristic | 片状 Flaky |
| 接样日期 Sample Received Date | 2024-04-24 | 验讫日期 Completion Date | 2024-05-29 |
| 检测项目 Item Tested | 防霉效果评估 Assessment of fungal growth | | |
| 检测依据和方法 Test Standard and Method | ISO 16869:2008/GB/T 24128-2018 塑料 塑料防霉剂的防霉效果评估 ISO 16869:2008/GB/T 24128-2018 Plastics—Assessment of the effectiveness of fungistatic compounds in plastics formulations | | |
| 检测结论 Test Conclusion | 经检验，该样品防霉等级为 0 级。 According to test, the fungi growth rating of the sample was 0. 签发日期：2024-05-29 Issue Date （机构盖章 Official Seal） | | |
| 备注 Remarks | 生产厂家：山东客乐思新材料科技有限公司，地址：山东省潍坊市临朐县龙山高新技术产业园 2688 号。（由委托方提供） Manufacturer: Shandong Kelesi New Material Technology Co., Ltd. Address: No. 2688 Yinglong Road, Longshan High-tech Industrial Park, Linqu County, Weifang City, Shandong Province (provided by the applicant) | | |

**制 表：** Editor 谭美娟 **审 核：** Verifier 邓娅丽 **批 准：** Approver 林操

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# 广东省微生物分析检测中心

GUANGDONG DETECTION CENTER OF MICROBIOLOGY

## 分 析 检 测 结 果

ANALYSIS AND TEST RESULT

报告编号（Report №.）：2024FM07449R01D

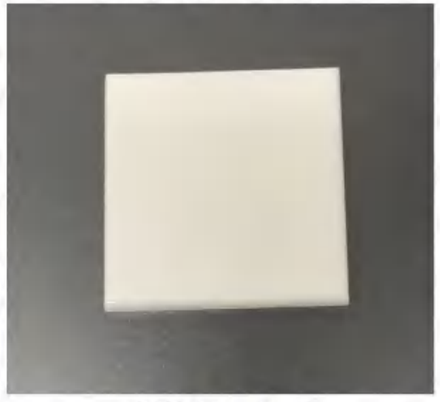
| 样品名称<br>Name of Sample | 培养时间<br>Incubation time | 防霉等级<br>The fungal growth rating |
|---|---|---|
| 客乐思复合亚克力实体面材<br>KELESI MODIFIED ACRYLIC SOLID SURFACE | 21 天 | 0 |

**评级标准**：0 级—没有生长—该材料可抗霉菌侵蚀；1 级—初期生长（与其余的琼脂表面相比）—该材料部分可防止霉菌侵蚀或一般不易受到霉菌侵蚀；2 级—明显生长和产生孢子—该材料容易受霉菌侵蚀。

**Rating Standard**: 0 - -No growth -- The material is resistant to fungal attack; 1 -- Initial growth (compared with the rest of ager surface) -- The material is partially protected against fungal attack or generally not susceptible to such attack; 2 -- Obvious growth and sporulation - -The material is susceptible to fungal attack.

**试验菌种**：黑曲霉(*Aspergillus niger*)CGMCC 3.3928，球毛壳霉(*Chaetomium globosum*) CGMCC 3.3601，绳状青霉(*Penicillium funiculosum*)CGMCC 3.3875，宛氏拟青霉(*Paecilomyces variotii*) CGMCC 3.4253，长枝木霉(*T.longibrachiatum*)CGMCC 3.4291。

**样品照片 Sample picture**



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