

ITCS

INTER TESTING & CONSULTING SERVICES

瑞茵特检测技术（上海）有限公司



**YOUR BEST BUSINESS PARTNER
FOR TESTING & CONSULTING**

前言

PREFACE

宜家测试及培训中心（以下称中心）位于上海市奉贤区, 是集产品测试以及供应商和员工培训为一体的实验室。

Inter Testing & Consulting Services (ITCS) is a test lab located in Fengxian district of Shanghai, China. Combined with a training centre for IKEA suppliers as well as IKEA staff in Asia.



ITCS经营理念

BUSINESS IDEA

我们的经营理念是在中国创建具备测试及培训能力的中心，降低宜家及其供应商的生产成本，控制产品质量，为更多消费者提供健康、安全、价廉物美的宜家产品。

To create an Inter Testing & Consulting Services in China that will result in a lower test cost for IKEA and suppliers. It contributes to IKEA price philosophy that as many people as possible can afford IKEA products.

ITCS测试种类

TEST RANGE

我们主要从事宜家产品的成品测试，认证测试及设计开发产品测试。

We cover all steps in the test process to secure IKEA article quality starting with the development testing, continue with production testing and finally provide verification testing.

ITCS质量方针

QUALITY POLICY

我们承诺公正公平、保密，专业和及时交付，以实现全方位的客户满意。我们的质量方针将通过过程的透明性，专业的能力，符合规定的测试方法，提供准确及可靠的测试报告，来确保不断满足和超越客户的期望。

We are committed to provide total client satisfaction with impartiality and confidentiality, professionalism and on-time delivery. We deliver our services with professional competence using transparent processes, apply compliant test methods, deliver accurate & reliable test report, continually meet or exceed our clients' expectations.

ITCS客户

CLIENTS

我们面向所有的宜家业务单位，为宜家供应商及其下级供应商提供测试及培训服务。我们的目的是提供最好的服务，并与客户建立简洁流畅的业务关系。

We provide our services to all IKEA units. We serve IKEA suppliers and their sub suppliers. And our aim is to offer the best services and easy to do the business with us.

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历史沿革

HISTORY

- 2006 英格卡董事会通过决定
INGKA Board decision making
- 2009 CNAS认可通过
(中国合格评定国家认可委员会)
CNAS approved
(China National Accreditation Service for Conformity Assessment)
- 2010 ITTC正式运营
ITTC official operating
- 2011 CPSC认可通过
(美国消费品安全委员会)
CPSC approved
(Consumer Product Safety Commission, United States of America)
- 2018 ITTC1+2正式运营
ITTC1+2 official operating
- 2019 改名为“ITCS”
New name ‘ITCS’
- 2019 CMA 认可通过
(检验检测机构资质认定)
CMA approved
(China Inspection Body and Laboratory Mandatory Approval)
- 2022 继续前行
Always on the way.



CNAS 能力范围
CNAS Test Scope

机构名称输入
“瑞茵特”



CPSC 能力范围
CPSC Test Scope



CMA 能力范围
CMA Test Scope

致辞

GREETINGS

瑞茵特检测技术（上海）有限公司隶属于英特宜家集团。它是最先进的家居用品测试实验室，同时也为宜家供应商以及亚洲地区的宜家员工提供培训。



ITCS通过了严格的实验室管理体系评审，获得中国合格评定国家认可委员会（CNAS）、中国检验检测机构资质认定（CMA）和美国消费品安全委员会（CPSC）的认可，于2010年1月4日正式开始向宜家亚太区供应商提供测试服务。ITCS的总面积为15,000平方米，两栋建筑均为四层，专为测试各类宜家产品而设计。我们的测试和培训服务顺应全球化趋势，来自49个国家/地区的客户使用我们的服务，其中92%的业务来自亚太地区。

目前，ITCS每年出具80,000多份测试报告，包括27万个测试方法，本书将详细介绍我们的服务范围。对于宜家供应商来说，ITCS有最全面的测试能力，可涵盖宜家商场出售的所有产品。然而，当今世界日新月异，ITCS将继续开发新的测试方法来支持宜家的业务扩展计划，以确保宜家商店中出售的产品能够满足最新需求。

ITCS的经营理念是，通过提供更全面更优质的测试服务、培训服务和技术支持服务，严格监控产品质量，控制成本，为更多消费者提供安全价廉物美的宜家产品。我们致力于成为全球范围内提供最优质的测试服务，培训服务及技术支持服务的宜家卓越中心。

最后，非常感谢与我们合作十多年的忠实客户！我们心怀自豪与喜悦期待服务于更多新客户！

Inter Testing& Consulting Services Shanghai belongs to Inter IKEA group. It is state of the art laboratory combined with a training centre for IKEA suppliers as well as IKEA's own staff in Asia.

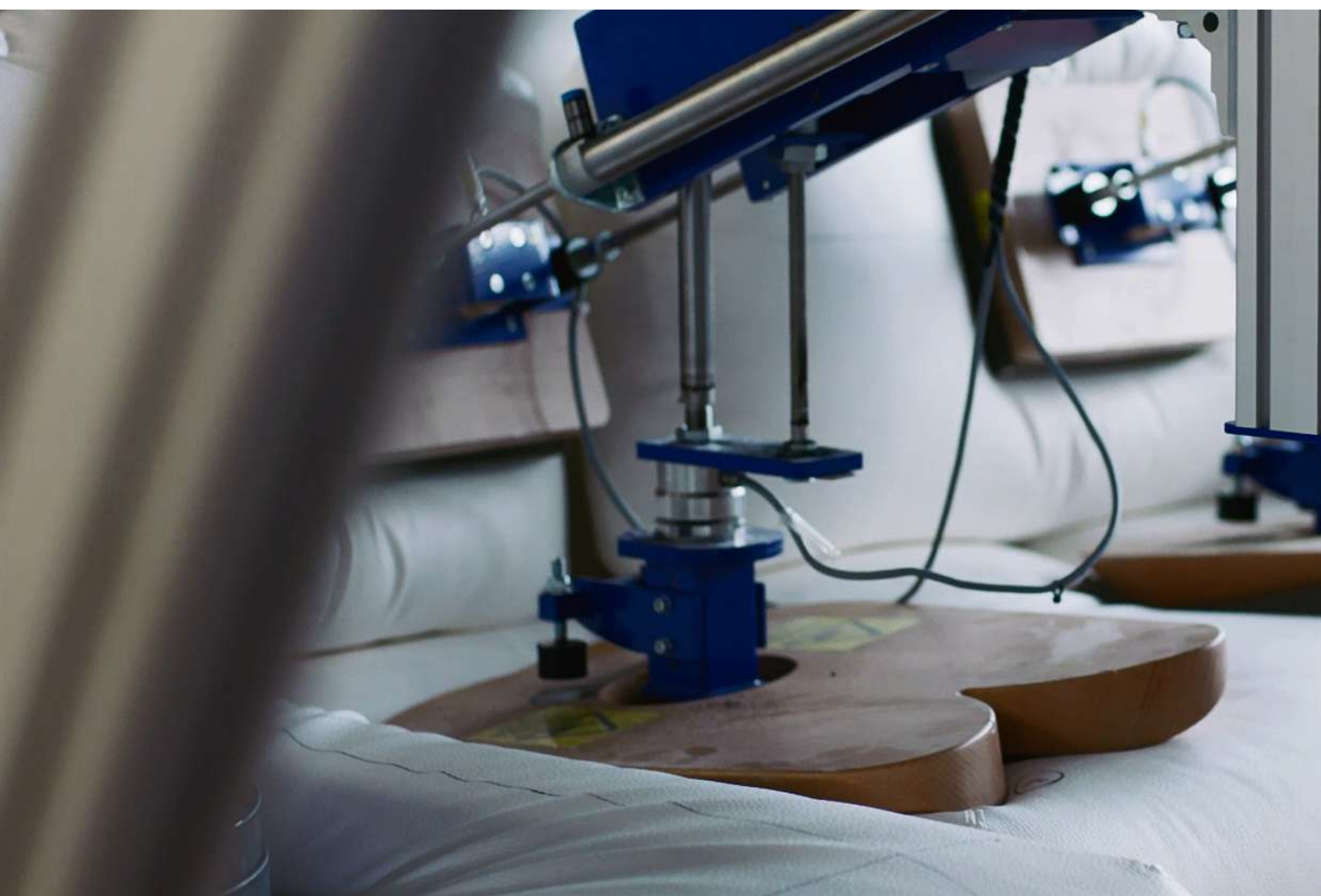
ITCS is accredited by China National Accreditation Service for Conformity Assessment (CNAS), China Inspection Body and Laboratory Mandatory Approval (CMA) and US Consumer Product Safety Commission (CPSC). ITCS formally started testing services to IKEA Asia Pacific suppliers in January 4th 2010. The total area of ITCS is 15,000 m², two buildings both with four floors, tailor-made for performing all the testing that IKEA's products shall live up to. Our service for testing and training follow the trend of globalization with customers from 49 countries, even though, 92% of our business comes from the Asia Pacific region.

At present, ITCS are issuing more than 80,000 test reports yearly, including 270,000 test methods. The following pages will show in detail the wide scope of our services. ITCS is the most complete testing facility for IKEA and IKEA suppliers covering everything that is sold in IKEA's stores. However, the world is changing rapidly and ITCS will continue to develop new test methods to support IKEA's business expansion plan to ensure what's sold in IKEA's stores lives up to latest demands.

The business idea of ITCS is to provide the widest range of testing, training and technical support services at the best quality and low cost, to secure healthy and safe IKEA products for the many people, and strive to be the IKEA Centre of Excellence offering the best quality and value for testing, technical training and technical support.

Finally, a big Thank You to our loyal clients that has been together with us for over ten years! And looking forward to serve new clients with pride and joy!

Per Lundmark
Managing Director
Inter Testing & Consulting Services



家具及硬质部件

HARDLINE

HARDLINE

家具机械测试

FURNITURE MECHANICAL TESTS

进行严格的机械测试，以确保家具符合强度，耐用性和安全性的要求。

Strict mechanical tests are conducted to ensure furniture complied with the requirements of strength, durability and safety.

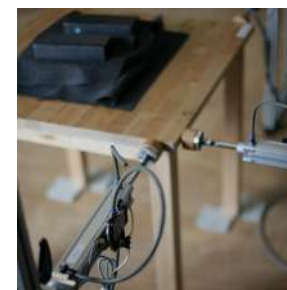


床垫测试

Mattress test

标准床垫需要通过140公斤滚筒30,000次的循环测试，带宜家25年质保的床垫则需要增加测试要求到50,000次循环。

Standard mattress shall withstand 30,000 test cycles with a 140kg roller. IKEA 25 years guarantee on mattresses shall increase the test requirement to 50,000 cycles.

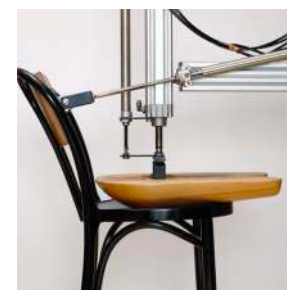


桌子测试

Table test

300N的水平力依次加载在四个方向上。重复10,000次循环，以确保工作台框架足够坚固。

A horizontal force of 300N shall be performed in four directions. This shall repeat 10,000 cycles in order to ensure the table frame is strong enough.



座椅测试

Seating test

向座椅施加1 000 N的力，在保持力的情况下，向靠背施加300 N的力。通常会重复25,000次循环，对于IKEA 10年质保产品，会重复50,000次，对于IKEA 25 年质保产品，会重复100,000次。

Apply a force of 1 000 N to the seat. With the seat force maintained, apply a force of 300 N to the backrest. This shall repeat 25,000 cycles for the normal use, 50,000 cycles for IKEA 10 years guarantee and 100,000 cycles for IKEA 25 years guarantee.



储物家具测试

Storage furniture test

为了避免重物及储物家具部件坠落时造成人身伤害，所有宜家储物家具都会按照严格的安全程序进行评估。除安全要求外，还需确保储物家具的长期使用。尤其是对于我们的厨房储藏家具，应在正常使用情况下进行80,000次循环测试，25年质保产品会进行200,000次循环测试。

In order to avoid serious physical injury when the storage and its components are heavy and fall through a significant distance, all IKEA storages shall be evaluated according to a strict safety procedure. Not only safety requirement, but also the ensurance of long-life use. Especially for our kitchen storage, it shall be tested with 80,000 cycle for normal use, and 200,000 cycles for 25 years guarantee.



气候箱测试

Climate chamber test

气候箱测试是一个宜家的内部方法，通过把板式家具放置在特定温湿度条件下持续加载五周时间，测试后仍能确保板式家具的外观、强度和安全都符合要求。

Climate chamber test is an IKEA test method. The board based furniture shall be loaded for 5 weeks at the specified condition. After test, the furniture shall still fulfil all the requirements in appearance, strength and safety.



耐腐蚀性测试 CORROSION TESTS

在涂层金属和不锈钢表面上进行测试。这些测试确保产品具有良好的耐腐蚀性，满足要求并达到客户的期望。

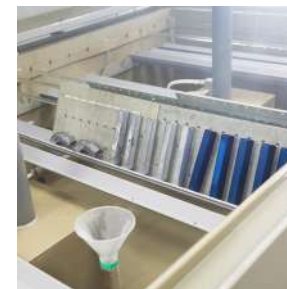
Tests are done on coated metal surfaces and stainless steel. The tests ensure that the products have good corrosion resistance, fulfill requirements and meet our customers' expectations.



浸泡测试
Dip test

在喷粉涂层或不锈钢等产品表面进行测试，检查这些表面与盐溶液接触时的反应-主要是在产品腐蚀的情况下。浸泡测试可发现薄弱点，并测试其是否已使用正确的表面处理。

This is done on, for example, powder coated and stainless steel products to reveal how a surface reacts in contact with a salty solution – mainly if the product corrodes. The dip test reveals weak spots and shows if the correct surface treatment has been used.



盐雾测试
Salt spray test

盐雾测试可以快速分析涂层中的不连续性，气孔和损坏。该测试主要针对金属材料，尤其是在带有无机涂层的金属，例如锌，铬，以测试表面在与盐溶液接触时如何反应-主要是在产品腐蚀的情况下。

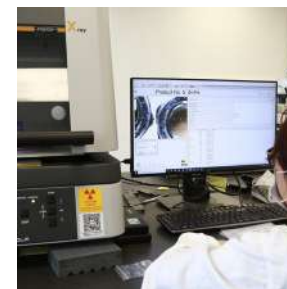
Salt spray test is a rapid analysis for discontinuities, pores and damage in coatings. This is done on metallic materials especially with inorganic coating, for example, zinc, chrome to reveal how a surface reacts in contact with a salty solution – mainly if the product corrodes.



厚度测试
Gauge meter test

金属产品上的清漆表面厚度需要使用厚度计测量。涂层应满足一定的厚度要求。厚度太薄会导致腐蚀。

The thickness of the varnished surfaces on metal products need to be measured with a Gauge meter. The coating should meet agreed thickness demands. Too thin thickness can lead to corrosion.



X射线测试
X-ray test

X射线测试主要测量电镀层的厚度，例如 锌，铬，镍或铜。镀层应满足一定的厚度要求。

X-rays measure the thickness of mainly electrolytic e.g. zinc, chrome, nickel or copper. The plating should meet agreed thickness demands.



显微镜测试
Microscope test

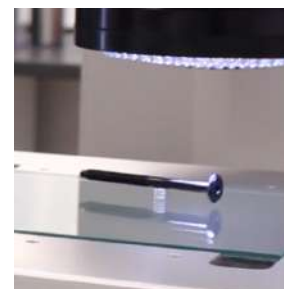
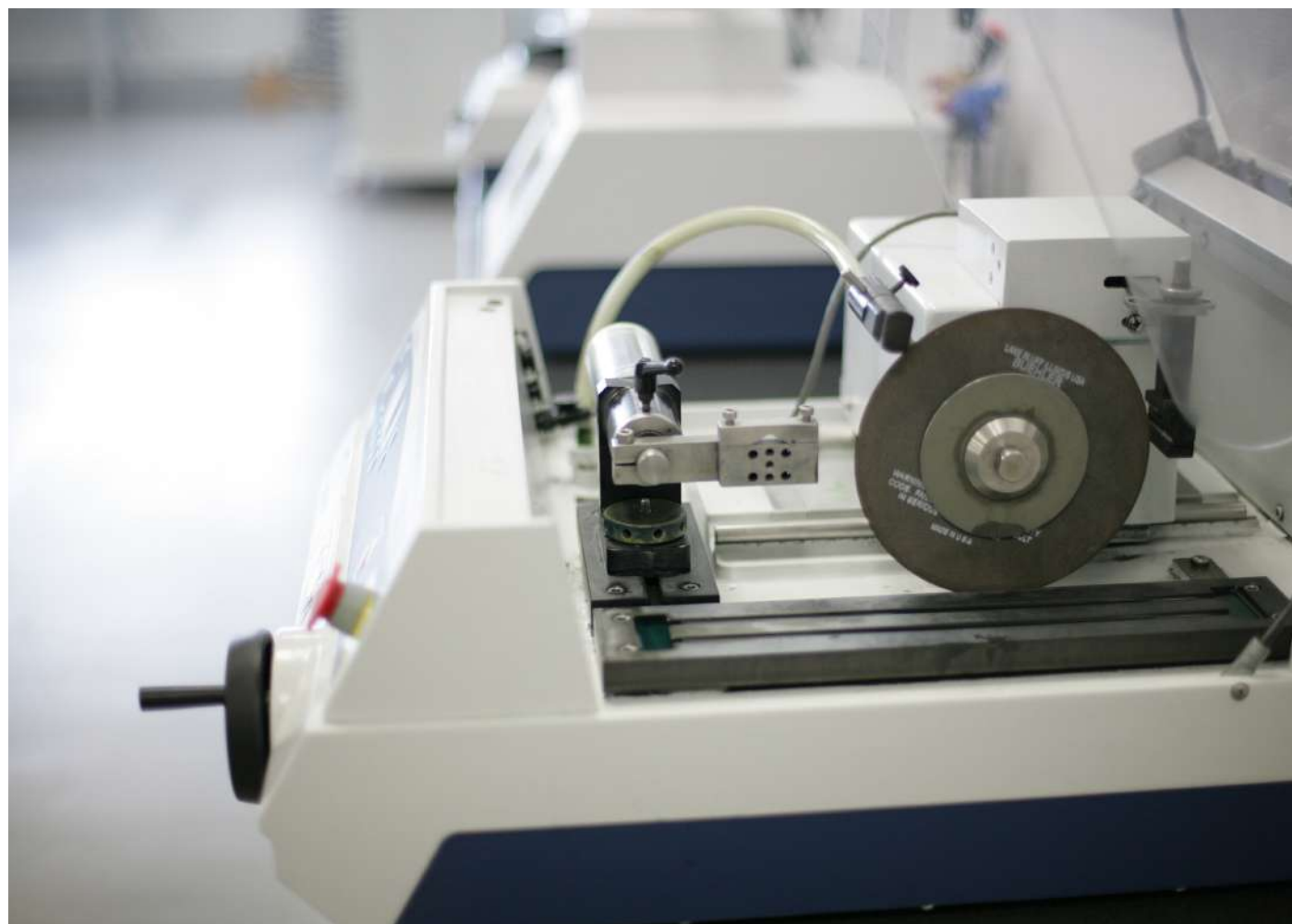
用来测量涂层及电镀层的厚度，是最精确的厚度测量方法。尤其对多层处理的表面，膜厚的测量更直接，更精准。该方法会将测试表面进行切割，获取横截面。经过镶嵌、研磨后，在显微镜下直接用标尺读取镀层或涂层厚度。

To measure thickness of coating and plating, it is the most precise method for thickness measurement. Especially for multi-layers treatment, the measurement is more direct and precise. This method will cut tested surfaces to get cross-section, after moulding and polishing, then to measure coating/plating thickness with scale.

零配件测试 FITTING TESTS

测试家具零配件，例如五金配件、塑料配件、铰链和脚轮等，以评估其物理耐久性，机械性能和整体质量。

The tests are done on fittings for example hardware fittings, plastic fittings, hinges, castor and wheels to evaluate the physical endurance, mechanical property and overall quality.



尺寸测试

Dimension test

测量配件的尺寸，确保其符合原始图纸，以保证产品顺利组装。

To measure dimension of fittings, ensure it complies with original drawing, later brings smooth assembly of our products.



拉伸试验

Tensile tests

通过拉伸机测试螺栓和螺钉等配件的拉伸性能。

To test the tensile performance of fittings like bolt and screw by the tensile machine.



扭矩测试

Torque test

测量扭矩强度，以更好地确保配件质量。

To measure torque strength, to better ensure quality of fittings.



维氏硬度测试

Vickers hardness tests

维氏硬度试验适用于螺栓、螺钉、螺柱等金属配件以及渗氮、渗碳层的硬度测定。通过表面硬度、芯部硬度或者渗碳层深度的测定来判断试样的热处理工艺质量。

To test hardness of metallic fittings like bolt, screw by the Vickers hardness tester. To judge the quality of the technics of heat treatment of samples by means of core hardness, surface hardness and case depth test.



蜡烛测试 CANDLE TESTS

测试在茶蜡，漂浮蜡，容器蜡和家用蜡烛上进行。测试的目的是为了满足安全要求并符合客户对质量的期望。

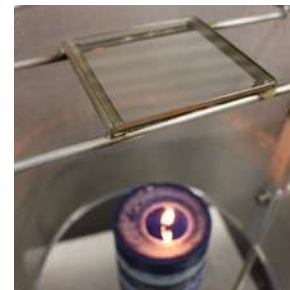
Tests are performed on tea lights, floating candles, container candles and house-hold candles. The purpose of tests are to fulfill safety requirements and meet the customers' expectations of quality.



燃烧测试 Burning test

评估蜡烛在燃烧过程中的表现及安全风险，例如蜡烛的燃烧时间是否符合声称，蜡烛在燃烧过程中，灯芯，火焰，蜡池及火焰高度的表象状况。蜡烛的种类不同，测试周期和燃烧时间会有所不同。

To evaluate the behavior and safety risk of a burning candle, for example if the candle burning time is correct as stated, and how the candle acts during burning. The candles burn in cycles and the wick, flame and the wax pool are continually checked. Depending on the kind of candle, the testing cycle and the burning time differ.



黑烟测试 Sooting test

测量蜡烛散发烟灰的程度，避免室内燃烧的蜡烛会熏黑墙壁或天花板。测试时，将蜡烛放在圆筒上，圆筒顶部有玻璃板，可以捕获烟灰。玻璃板借助透光计进行评估。还记录了灯芯，火焰或蜡池中的每一次变化。

Measures candles soot emission, to avoid a candle burning in rooms soot the walls or ceiling. The candles are placed in a cylinder with a glass plate on top, which catches the soot. The glass plate is assessed with the help of a lux meter by measuring the light transmittance of sooted glass. Every change in the wick, flame or wax pool is also recorded.



烛台测试 Candle holder test

该测试旨在评判不同材料，产品或组件对高温和火焰的表现。为了满足烛台的安全要求，需进行稳定性测试，可燃性测试和表面温度测量。

The test is to measure and describe the response of materials, products, or assemblies to heat and flame. To meet the safety requirements of candle holder, stability test, flammability test and surface temperature measurement are performed.



滴蜡测试 Dripping test

测试家用蜡烛滴落的程度。该测试模拟了一根燃烧的蜡烛暴露在气流的作用下，导致火焰闪烁和蜡滴落。蜡烛在盘子上的支架中燃烧。稳定30分钟后，转盘开始旋转。评估是根据蜡烛上滴下的蜡量进行的。

To measure to what extent a household candle drips. The test simulates a burning candle exposed to draughts or other gusts of wind causing the flame to flicker and the wax to drip. The candles are burned in holders on a plate. After 30 mins' stabilization, the plate starts to rotate. The assessment is made on the dripping of wax on, or off, the candle.

表面抗性测试

SURFACE RESISTANCE TESTS



在涂层和被覆表面上进行测试，以评估表面抗性，耐久性和整体质量。表面处理设计用途不同，要求也会有所不同。

The tests are done on coating and covered surfaces, to evaluate the surface resistance, durability and overall quality. Depending on what the surface is designed for, the requirements differ.



耐冷液体 Cold liquids test

该测试目的是评估表面在经受各种液体接触的状况下，是否会造成表面的侵蚀，损坏或是污渍。
This test is to verify if any destroy or stain will be found on surfaces when they been contacted with different kinds of liquids.



刮擦耐油脂 Resistance to fat with scratch

该测试用以评估木质基材表面处理的强度。刮擦耐油脂评估的是油脂在刮擦区域的扩散。尤其是当油脂沿着纤维纹理扩散的时候，表面会出现变色。
The test is to determine the hardness of the surface treatment for coated wood and wood-based substrates. The test "Oil on scratch" measures the spread of oil around the scratch. The surface might get discolored, for example, when the oil follows the fiber direction and leaves marks.



表面耐热 Surface resistance to heat

把加热到不同温度的热块，放到面板表面上，用以评估面板表面在经受热源的状况下，表面的破坏情况，以及光泽或颜色的变化。
By placing heated blocks onto tested surfaces, to verify how the surface resistance to heat, if any changes in gloss or colour.



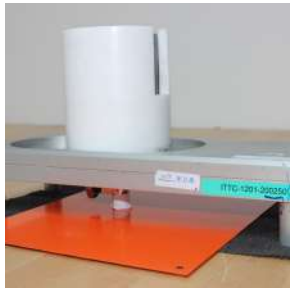
边缘耐热/水/蒸汽 Edge resistance to heat/water/steam

该测试的对象是厨房和浴室的工作台以及门板，测试其边缘在与热/水/蒸汽接触时的反应，评估贴面的收缩，厚度的变化，边缘的开裂或松动等。
This is done on doors and fronts for kitchens, worktops and bathroom to see how their edges react in contact with heat/water/steam. Shrinking of foil, change in thickness, open joints or edge band becoming loose are some of the damages that are assessed.



抗表面微划痕 Surface resistance to micro scratching

该测试方法适用于所有类型的表面涂层和贴面，但具有珍珠或金属效果的清漆除外，不适用于皮革和织物的饰面。用非常细的磨砂材料擦拭160次后，评估表面变化。
The test method is used for all types of surface coatings and coverings, except for lacquers with pearly or metallic effects and not apply to finishes on leather and fabrics. The test surfaces shall be assessed after 160 rubs with very fine scrub materials.



耐摩擦色牢度 Colourfastness to rubbing

该测试目的是测试表面涂层是否会容易脱色，并使其他材料沾色。
The test is made to see if a surface gives off its colour to other materials.

厨具和餐具测试

COOKING & EATING MATERIAL TESTS

测试对象为陶瓷，玻璃器皿，炊具等，以评估材料的耐久性，物理耐力和整体质量。从而评估产品是否符合相关要求和客户期望。

The tests are done on for example ceramics, glassware, cooking utensils to evaluate the material resistance, physical endurance and overall quality. This is to see if the products meet the relevant requirements and customer expectations.



洗碗机测试 Dishwasher test

测试家用餐具和炊具，如餐具，玻璃，陶瓷产品（如盘子和碗）以及正在开发中的其他材质的器皿。以评估清洗程序期间产品及材料的表现或变化。

To test household cookware, dinnerware, like cutlery, glassware, ceramic products of plates and bowls, and other types of material that are in development. The test is done to see how the product and material's performance and changes during washing programs.



吸水率测试 Water absorption test

测试陶瓷产品的吸水率以保证其符合产品质量和安全等级的要求。

To test water absorption for ceramic products if meet the requirements which determine the quality of products, and safety level as well.



热冲击测试 Thermal shock test

测试产品在极端环境下对即时冲击的抵抗力。测试对象为家用的餐具，例如陶瓷制品和玻璃器皿。以查看产品是否有裂纹甚至破裂。

To test product resistance on instant impact under extreme environment. The utensils, which are household, such as ceramic products, and glassware. The test is done to see if products are cracks, even broken.



微波加热测试 Microwave heating test

用于测试产品在高温条件下加热后是否会引起质量或安全问题。例如陶瓷，玻璃器皿，瓷器等都需经过该项测试。

Purpose for testing if products may cause quality or safety problem after heating in the condition of high temperature. Any products like ceramic, glassware, stoneware are available.



炊具的安全性和性能测试 Safety and performance on cooking utensils

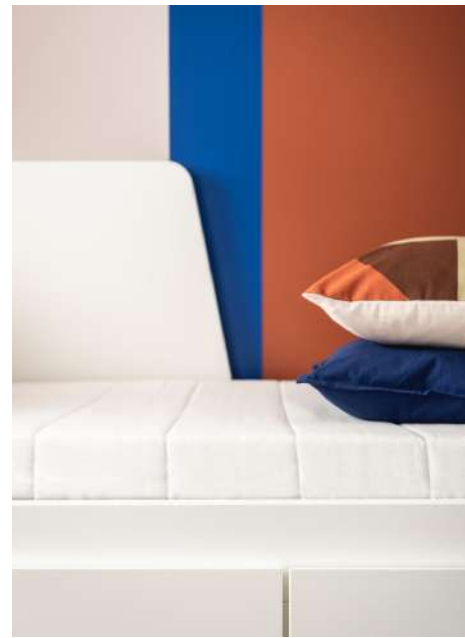
测试旨在评估供家庭使用的炊具的“安全性”和“性能”。

The tests are designed to assess the “safety” and “performance” of cookers for home use.



材料物理测试

MATERIAL PHYSICAL TESTS



宜家产品中使用材料包括泡沫，乳胶，高蓬松度无纺布（填料），刨花板等。这些材料的物理性能会进行一系列测试评估，以确保符合质量要求和客户的期望。

Tests are conducted to evaluate physical properties of materials (Foam & Latex, Thermo high loft nonwoven (wadding), Particle board) used in IKEA products, ensuring complies with quality requirement and customers' expectations.

海绵、乳胶、无胶棉测试

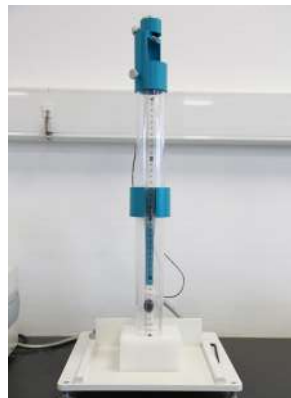
FOAM/LATEX/NONWOVEN WADDING TESTS



灰分测试
Ash content test

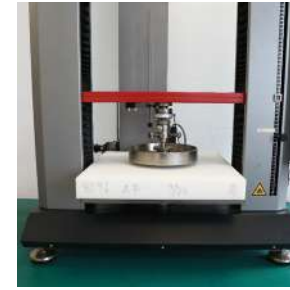
在空气中以指定的速率将样品加热到725°C并保持在该温度下直至质量恒定之前，以测量PU和乳胶海绵的灰分含量。

The test is made to measure the ash content of the PU and Latex foam after heated in air at a specified rate up to a temperature of 725 °C and maintained at this temperature until constant in mass.



压缩变形之前和之后的回弹性
Resilience test before and after compression set

用来测定材料的弹性和均匀性，以及压缩导致的弹性变化。
To determine the material's resilience and evenness, verifying the resilience change caused by compression.



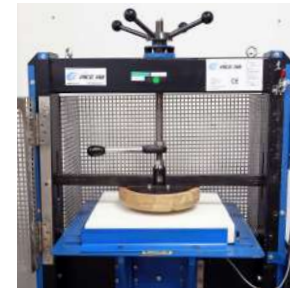
硬度测试 / 疲劳引起的厚度和硬度损失 / 滞后损失率和压陷比
Hardness test / Thickness and hardness loss caused by fatigue / Hysteresis loss rate and support factor test

硬度测试主要测量样品达到规定的压陷比时所需要的力，进而提供海绵的压陷硬度特征。

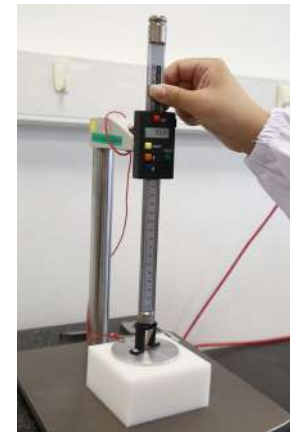
由疲劳引起的厚度和硬度的损失是为了检测PU海绵材料在经受机械压力时变软的程度。

滞后损失率和压陷比用来评估压缩变形系数及滞后损失率，从而给材料的承重特性提供了更多的信息。

通过以上三个测试，来评估海绵材料的特性，并考量其在经受疲劳或承重后的状态表现。



Hardness test is to measure the force required to produce specified indentations, which provides the indentation hardness characteristics information.



The loss in thickness and hardness caused by fatigue describes to which extent a PU foam material sample becomes softer when undergoing a mechanical indentation.

Hysteresis loss rate and support factor test is made to determine the compressive deflection coefficient and hysteresis loss rate, which gives additional information about the load-bearing properties of materials.

These three tests are used to evaluate the properties of the sponge material and its performance under fatigue or load bearing conditions.

刨花板测试

PARTICLEBOARD TESTS



通过测量内部粘合度，弯曲强度，弯曲弹性模量，厚度膨胀等来评定刨花板的性能。

To test the particleboard performance by the methods internal bond, bending strength, modulus of elasticity in bending, swelling in thickness.

包装材料测试

PACKAGING MATERIAL TESTS

对包装材料，如瓦楞纸板，纸托盘进行测试，来确保材料的质量，进而确保包装材料能对销售产品提供足够的保护。

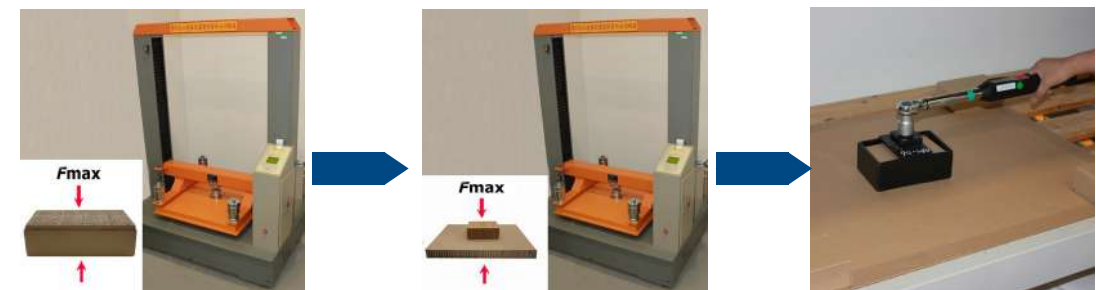
Tests are conducted on packaging materials, like corrugated board and paper pallet to ensure proper quality, and then to ensure that packaging materials provide adequate protection for the products sold.



瓦楞纸板测试
Corrugated board test

该测试通过抗弯挺度测试，边压强度，平压强度，爆破强度，厚度测试，克重和吸水性来评估样品质量。确保包装材料在从供应商到顾客家里的整个处理过程的不同阶段，保护产品免受破坏。

The test is to determine the quality of specimens with Bending stiffness, Edgewise crush test, Flat crush test, Bursting strength test, Thickness, Grammage and Water absorptiveness test. Ensure the package protecting the product against damage at the different stages of the handling process from the supplier all the way to the customer's home.



纸托盘测试
Paper pallet test

我们使用纸托盘是因为相对于传统的木托盘，它们是一种较好的方案，它们更有效更环保。我们通过抗压强度，剪切强度，吸水性和变形量测试评估样品的质量。

We use paper pallets because they are a better solution compared to traditional wooden pallets. They are also more environmental friendly. Determine the quality of specimens with Compression test, Shear strength of feet, Water absorptiveness test and deflection test.

灯具测试 LIGHTING TESTS



一、安规测试 Safety test

The safety test simulates the possible use methods of end customers, and through a series of tests, evaluates the possible hazards of electric shock, fire, mechanical injury, thermal injury, energy hazard, radiation injury and so on. The purpose of the test is to assess the foreseeable or unforeseen risks and ensure that the user can avoid personal injury or property loss as much as possible during use.

安规测试通过模拟终端客户可能的使用方法，经过一系列的测试，考核产品在正常或非正常使用的情况下可能出现的电击、火灾、机械伤害、热伤害、能量危害、辐射伤害等危害。测试的目的是对可预见或不可预见的风险进行评估，确保使用者在使用过程中尽可能地避免出现人身伤害或财产损失。

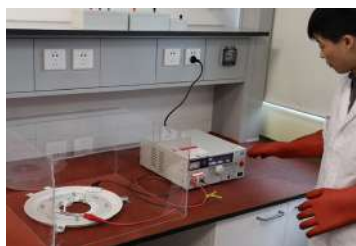


灯具电参数测试

Luminaire parameter test

灯具电学参数测试，测试的主要参数包括电压，电流，功率，相位，位移因素，谐波，功率因素等。

Luminaire parameter test is to measure the conventional electrical parameters. The main parameters include voltage, current, power, phase, displacement factor, harmonic and power factor etc.



介电强度测试

Electric strength test

介电强度测试是对部件或产品进行的电气试验，以确定其绝缘的有效性。测试可以在零件或通电零件的相互绝缘部分和电气接地之间进行。

Dielectric withstand test (or hipot test) is an electrical test performed on a component or product to determine the effectiveness of its insulation. The test may be between mutually insulated sections of a part or energized parts and electrical ground.



接地连续性测试

Earth continuity test

接地连续性测试旨在测试灯具和/或电源线的保护接地电阻。在任何可接近的接地部件和插头的接地插脚之间进行测量。

The earth continuity test is designed to test the resistance of the protective earth of luminaire and/or the supply lead. It is measured between any accessible earthed parts and the earth pin of the plug.



冲击测试

Impact test

旨在测试灯具是否具备相应机械强度，使灯具受到一般使用情况下可预料的强烈冲击后保持它的安全性。

The purpose is to test whether the luminaires have the corresponding mechanical strength, so that the luminaires can maintain its safety after being subjected to the strong impact that can be expected under general use conditions.



灯头扭矩测试

Torque Test

灯头扭矩测试用来检测与螺口或插口灯座连接的半灯具完全插入时所产生的弯矩是否符合标准要求。

It is used to detect whether the bending moment generated when the half lamp connected with the screw or socket lamp holder is fully inserted meets the standard requirements.



可移动式灯具防倾倒测试

Portable luminaires stability test

可移动式灯具应具有足够的平稳度。合格性用下述方法检验。灯具以正常使用时最不利的位置置于一块平板上：

- 室内使用的灯具与水平面成6°；
- 对于室外使用的灯具，与水平面成15°，平板表面不应使灯具滑动。

Portable luminaires shall have adequate stability. Compliance shall be checked by placing the luminaire in the most unfavourable adjustment position of normal use on a plane inclined at an angle of:
- 6° to the horizontal for luminaires for indoor use;
- 15° to the horizontal for luminaires for outdoor use, the surface of the plane being such that the luminaire does not slide.



针焰测试

Needle-flame test

针状火焰测试用于评估小火焰引起的火灾危险，小火焰可能由电气设备部件故障时着火引起。

The needle-flame test is used for the assessment of fire hazard caused by small flames, which may result by ignition of a failing component of electric equipment.



防水测试

IP test

在灯具生产中，为了适应更多的使用环境，特别是在户外使用的灯具，对产品有不同等级的防尘防水要求。

In the production of lamps and lanterns, to adapt to more use environments, especially lamps and lanterns used outdoors, there will be different levels of dust-proof and waterproof requirements for products.



不可调光灯泡在可调光电路或开关系统中的异常测试

Abnormal test of non-dimmable lamp at a dimmer or electronic switch

为避免发生危险，要求不可调光的LED球泡灯即使安装在可调光电路或开关系统中，时候依然保证安全使用不产生危险，因此需要将其安装在非调光灯调光测试装置上测试。

To avoid danger, this requires that the non-dimmable LED bulb lamp, even when installed on a dimmer or electronic switch, can still be used safely without danger. Therefore, it needs to be installed on the dimming test device of the non-dimming lamp for testing.

二、能效测试 Performance test

Assess the photometric and electrical characteristics of light sources and modular lighting products. Through the test of luminous flux, luminous efficiency, correlated color temperature, color rendering index and other parameters, the test method of luminous flux maintenance rate and energy efficiency grade, the photoelectric conversion efficiency, product survival rate and performance characteristics of lighting products are evaluated. Meet the energy efficiency requirements and life requirements of lighting products under different standards and specifications.

对于光源和模组照明产品的光度和电学特性的考核。通过对光通量、光效率、相关色温、显色指数等参数的测试，光通维持率和能效等级的试验方法，评估照明产品的光电转换效率、产品存活率及性能特性。满足照明产品再不同标准规范下的能效要求和寿命要求。



积分球系统

Integrating Sphere System

该测试能够快速测量SSL产品需要的光度信息包括总光通量 (lm)，发光效率 (lm/w)，色度坐标，相关色温 (CCT) 和显色指数 (CRI)。

It can quickly measure the photometric information required by SSL products, including total luminous flux (lm), luminous efficiency (lm/w), chromaticity coordinates, related color temperature (CCT) and color rendering index (CRI).



角度计测试系统

Goniometer Test System

该测试能够测量一个或多个方向上的发光强度 (cd)，同时该系统搭载了色度计，可以测量综合色度和色度的空间不均匀性。

The test can measure the luminous intensity (cd) in one or more directions while meeting the above photometric and electrical parameters. The system is also equipped with a colorimeter, which can measure the spatial heterogeneity of comprehensive chromaticity and chromaticity.



光源寿命测试系统

Light source lifetime test system

配合积分球系统和角度计系统，对照明产品的光通量维持率和存活系数进行测试，系统可监控每个样品在燃点期间的电气参数和故障预警，根据不同的时间和方式进行开关通断和寿命试验。

Cooperate with integrating sphere system and goniometer system to test the luminous flux maintenance rate and survival coefficient of lighting products. The system can monitor the electrical parameters and fault warning of each sample during the ignition period and conduct switch on-off and life tests according to different times and methods.



轻工纺织品

SOFTLINE

SOFTLINE

纺织品物理测试

TEXTILE PHYSICAL TESTS



外观测试，耐久性测试，强度测试，结构测试和功能测试是物理测试中的主要测试部分。大部分纺织品物理测试，都需要在恒温恒湿环境下进行。

Appearance testing, durability testing, strength testing, construction testing, and functional testing are the main parts of physical tests. For many of textile physical tests, the samples need to be conditioned and tested in a climate-controlled zone.

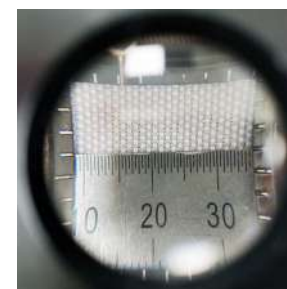


起毛起球测试

Pilling and fuzzing

该测试在马丁代尔机器上进行，织物样品与标准羊毛布（或该织物另一块样品）相互摩擦一定的次数或周期，以测定在使用过程中纺织品出现起毛起球的程度。

The test is performed with help of a Martindale machine, where the fabric rubs against a standardized wool fabric or against another piece of the test sample for a certain number of cycles. Textile fabrics are tested in order to determine the degree of pilling and fuzzing during daily use.



结构测试

Construction testing

测试方法用于确定纺织品的结构特性，包括单位面积的质量，单位长度的纱线根数，线密度。众所周知，“高支数”被套总是给人一种舒适的感觉。

The test methods are used to determine the construction properties of textiles, including mass per unit area, number of threads per unit length, linear density. As we know, “High yarn count” quilt cover always offers a comfortable feeling to consumers.



强度测试

Strength testing

强度测试可以测定织物和纺织品的机械性能，例如拉伸强度/撕裂强度/接缝强度等。

There are some strength test methods to determine the mechanical properties of fabrics and textile products, such as tensile strength, tear strength, seam strength.



拒水性测试

Water repellency test

通过Bundesmann雨淋试验来测定织物的拒水性。该测试模拟了雨水降落在纺织品表面时的情况。

This method describes a method for the determining of the water repellency of textile fabrics by a rain-shower test known as the Bundesmann method. This test imitates the condition when rain drops on the surface of textile products.

纺织品色牢度测试

TEXTILE COLOUR FASTNESS TESTS



纺织品需经过多种类型的色牢度测试，如：摩擦，日晒，水洗，汗渍和唾液和颜色向PVC迁移。以确保产品满足客户期望。

Many types of color fastness test are performed such as rubbing, light, washing, perspiration, saliva and migration of t colours into PVC to ensure the products meet the customer expectations.



耐日晒色牢度

Colour fastness to light

纺织品在人造光源下按照规定条件曝晒后的变色程度。例如，测试窗帘耐日晒的能力。

The change in colour of the textile which is exposed to artificial light under controlled conditions, e.g. testing the colour change of curtain exposed under artificial light.



耐水，唾液和汗渍色牢度

Colour fastness to water, saliva and perspiration

通过测试水，唾液和汗渍对织物颜色的影响，例如纺织品颜色是否会在与这些溶液接触时发生褪色或迁移。

Textile was tested to observe how water, saliva and perspiration affect the specimen, e.g. to see if the specimen has changed color or transferred color to other fabrics.

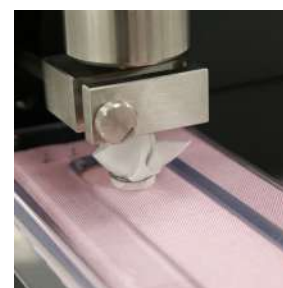


PVC颜色迁移

Migration of textile colours into PVC

将涂有塑化剂的样品与PVC膜接触测试颜色迁移程度，例如地毯上的颜色迁移到PVC地板上。

A specimen of a textile impregnated with plasticizer is brought into contact with a white PVC foil and assess the staining of the PVC foil. For example, the colour of rug brought into PVC floor.



耐摩擦色牢度

Colour fastness to rubbing

将纺织品试样与白色棉摩擦布摩擦，评定摩擦布沾色程度。

Specimens of the textile are rubbed with a white cotton rubbing cloth and assess the staining of the rubbing cloths.



耐水洗色牢度

Colour fastness to washing

该测试的目的是为了检测纺织品在洗涤过程中其颜色是否发生改变和转移到其他织物上（例如棉，涤纶，羊毛等）。

The purpose of the test is to detect whether the textile color changes and transfers to other fabrics during the washing process e.g. Cotton, polyester, wool.

燃烧测试

FLAMMABILITY TESTS



软体家具的防火安全受多项法律法规的约束，测试方法取决于产品销售的地区。ITCS目前可测试包括欧盟，英国，俄罗斯，中国，美国和加拿大的防火要求。

Fire safety of upholstered furniture is governed by multiple legislations and regulations, and the test methods are therefore safety tests. Consequently, the method depends on the country where the product is sold. ITCS can provide test service according to the regulation of many countries and regions including EU, UK, RU, CA and CN.



香烟测试
Ignitability with cigarette

将点燃的香烟放置在软体家具的小模型或成品上，以测试样品的抗香烟引燃性能。
Cigarettes are placed on a small scale or full scale of upholstered furniture to see how the material reacts to a glowing cigarette.



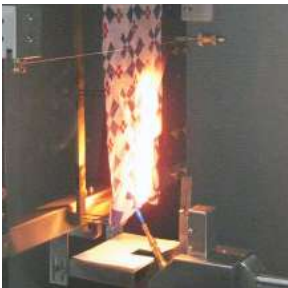
纺织品燃烧测试
Fire-test on textiles

测试纺织品是否易燃。所有的宜家纺织品都有此项测试要求。
This is performed to see if textiles catch fire easily. All IKEA textiles need to meet this test requirement.



抗火焰引燃
Ignitability with gas flame

衡量床垫，软体家具的外壳以及软体座椅类产品中使用的材料组合的可燃性。如果试样引燃，则对火焰的蔓延情况进行评估。
Measures the flammability of mattresses, the covers of upholstered furniture and the combination of materials used in upholstered seating. The assessment is done on the development of fire, if the specimen ignites.



垂直试样火焰蔓延速度
The flame spread of vertically oriented specimens

该方法用来测定纺织品类窗帘的火焰蔓延速度，取样方式采用垂直取样。
The method is to determine the flame spread of textiles for curtains by testing vertically oriented specimens.

玩具及儿童产品物理测试

TOY & CHILDREN ARTICLE PHYSICAL TESTS

这些测试的目的是确保宜家玩具和儿童用品对儿童是健康安全的。不论销售市场是哪里，玩具均应满足欧洲，美国加拿大，澳洲/新西兰，中国的所有适用要求。

The purpose of these tests is to ensure that IKEA toys and children articles are healthy and safe for children. The toys shall meet EU, USA, Canada, Australia/New Zealand, China all applicable requirements regardless of sales market.



小部件测试
Small parts test

该测试旨在降低儿童吞食或吸入小部件（例如小玩具和玩具的小零件）的风险。
This test is intended to reduce the risks from ingestion or inhalation of small objects, such as small toys and small components of toys for young children.



尖点，锐边测试
Sharp point, Sharp edge test

该测试的目的是减少玩具尖锐部位可能造成的皮肤刺穿和锋利边缘可能造成的割伤和撕裂的风险。
These tests are intended to reduce the risks from sharp points on toys capable of causing punctures of the skin and sharp edges on toys capable of causing cuts and lacerations.



滥用测试（跌落，倾翻，扭，拉，挤压，挠曲）
Reasonably foreseeable abuse test
(Drop, Tip over, Torque, Tension, Compression, Flexure)

测试的目的是模拟儿童在玩耍过程中可能造成的玩具掉落，拉扯，扭曲和其他动作所导致的结构损坏。
The intention of the tests is to simulate the exposure of a toy to structural damage as a result of dropping, pulling, twisting and other actions likely to be performed by a child interacting with the toy.



燃烧测试
Flammability test

这项测试是为了确保玩具不会因其潜在的起火危险而对儿童构成重大的伤害风险。
This test is to make sure toys could not pose a significant risk of injury to a child from the hazards presented by their potential to catch fire.



软体家具皮革&PU涂层织物测试

UPHOLSTERY LEATHER & PU-COATED FABRIC TESTS



测试确保皮革和人造革产品满足机械性能和可维护性的要求。

The referenced tests make sure that the leather and artificial leather products meet the requirements on mechanical properties and maintainability.



可保养性测试 Maintainability

在皮革/ PU涂层织物表面涂上指定污渍（番茄酱，油，咖啡，脏布，红酒）并保留24小时。然后使用指定的清洁剂清除污渍，并在清洁区域上涂上皮革护理剂。评估样品清洁后以及护理后外观的变化。

The test is performed with specified staining substances (ketchup, oil, coffee, dry soil, red wine) applied to the leather/PU-coated fabric for 24 h. Removed the stains using an IKEA specified cleaner and the cleaned area repolished with leather cream. The sample is assessed for stain removal and any changes in appearance after cleaning and repolishing.



双边撕裂强力 Double edge tear

特定形状的试样（中间开口的矩形）被放置在拉力机的夹具测试钩上，拉力机向上拉伸样品直至撕裂过程中的最大力值即撕裂强力。

A rectangular test piece with a hole of specified shape is placed over the turned up ends of a pair of holders attached to the jaws of a tensile testing machine. The highest force exerted during tearing of the test piece is recorded.



耐弯折性能测试 Flexing test

将测试样品进行对折，上部测试面向内折叠夹在可运动的夹具内，下部测试面向外折叠夹在固定的夹具内。上部夹具的运动使样品产生折痕并沿着折痕运动，周期性观察样品在折痕处的破损情况。

该测试方法用于评估真皮/人造革在长时间使用之后是否会发生破损。

A test piece is folded with the surface to be tested inwards and clamped in an upper movable clamp and with the surface to be tested outwards in a lower fixed clamp. Movement of the upper clamp causes a fold in the test piece to run along it. The test piece is examined periodically for damage. The test is done to determine whether the leather/PU-coated fabric cracks or not after a long time using.



耐往复摩擦色牢度 Colourfastness to cycles of to-and-fro rubbing

在给定的压力下，将真皮/人造革样品与羊毛毡进行往复摩擦，用标准灰卡对测试样品的变色情况和羊毛毡的沾色情况进行评级。

The leather/PU-coated fabric specimen is rubbed with wool felt under a given pressure for some forward and backward motions. The colour staining degree of the wool felt and colour change of the sample are assessed with grey scales.



化学
CHEMICAL

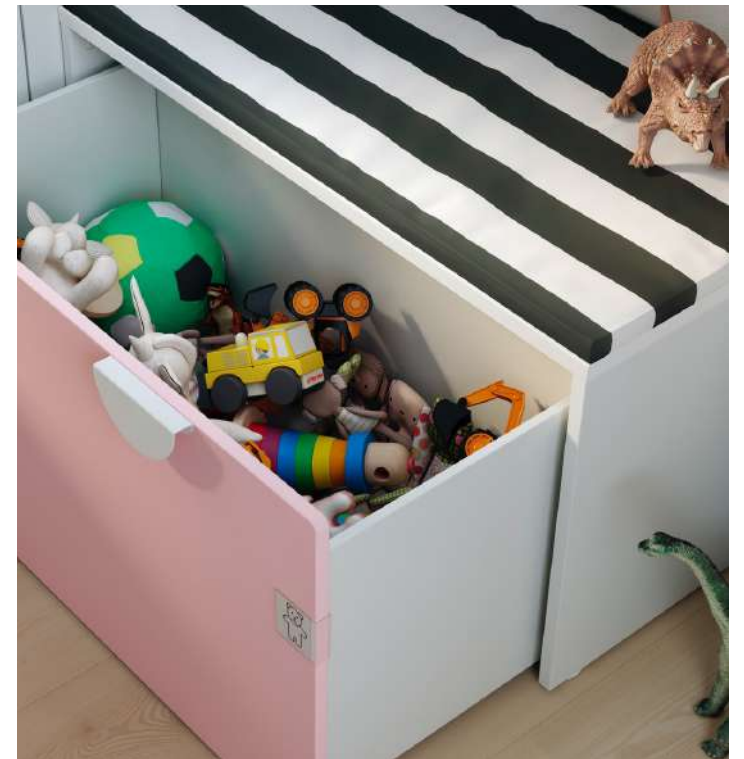
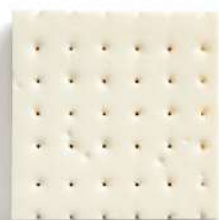
CHEMICAL

化学测试 CHEMICAL TEST

材料 MATERIAL

聚合物
纺织材料
皮革
木材
玻璃、陶瓷、搪瓷等

Polymeric
Textile
Leather
Wood
Glass, Ceramic, Enamel



产品 PRODUCT

家具类
纺织产品
电气电子产品
玩具和儿童用品
食品接触产品等

Furniture
Textile products
Electric & electronic products
Toy and children articles
Food contact products

无机化学元素分析

INORGANIC CHEMICAL ELEMENTS ANALYSIS

有毒元素（“重金属”）在环境中比较常见。人类接触过多的有毒元素会对健康产生不良影响，甚至会有潜在死亡的风险。我们可以对固体和液体样品中的元素进行识别，并通过定量分析技术，检测出存在于样品中的某种特定元素或每种元素的含量。

Toxic elements (“heavy metals”) are common to the environment. Exposure to toxic elements will lead to adverse health effects and potentially death. Elemental analysis and testing include identification and quantification of elements in solid and liquid samples, and determine how much of a particular or each element is present in the samples.



元素分类

ELEMENTS DETECTED AND CHARACTERIZED

铅，镉，汞，铬，六价铬
铝，锑，砷，钡，硼，钴
铜，锰，镍，硒，锶，锡，锌
氟，氯，溴，碘

Lead, Cadmium, Mercury, Chromium, Chromium VI
Aluminum, Antimony, Arsenic, Barium, Boron, Cobalt
Copper, Manganese, Nickel, Selenium, Strontium, Tin, Zinc
Fluorine, Chlorine, Bromine, Iodine

测试技术

TESTING TECHNIQUES

X射线荧光光谱法 (XRF)
电感耦合等离子体发射光谱法 (ICP-OES)
电感耦合等离子体质谱法 (ICP-MS)
离子色谱法 (IC)

X-Ray fluorescence spectroscopy (XRF)
Inductively coupled plasma optical emission spectrometry (ICP-OES)
Inductively coupled plasma mass spectrometry (ICP-MS)
Ion chromatography (IC)

有机化合物分析

ORGANIC COMPOUNDS ANALYSIS

目前已知有数千种有机化合物会对人类或环境产生危害。我们采用多种检测识别技术，可以分析检测出各种产品和材料基质中极低浓度的有机物。

Thousands of organic compounds are known to be toxic either to humans or to the environment. We deploy a wide range of identification techniques which enables us to analyze a diverse variety of samples and sample matrixes, and to determine the organic present down to very low levels.



有机化合物分类

ORGANIC COMPOUNDS CHARACTERIZED

具有制造和环保意义的有机化合物的类别包括脂族和芳族石油烃以及工业溶剂等。相关测试项目包括但不限于：邻苯二甲酸酯，烷基酚聚氧乙烯醚(APEO)，有机锡，多环芳香烃(PAH)，阻燃剂等。

Classes of organic compounds of manufacturing and environmental interest include aliphatic and aromatic petroleum hydrocarbons and industrial solvents. Relevant test items include but not limited to: Phthalates, APEO, Organotin, PAH, Flame retardants.

测试技术

TESTING TECHNIQUES

气相色谱-氢火焰 离子检测器/微电子捕获检测器 (GC-FID / μ ECD)
气相色谱质谱联用仪 (GC-MS)
超高效液相色谱-质谱联用仪 (UPLC-MS)
超高效液相色谱-串联质谱仪 (UPLC-MS/MS)

Gas Chromatography with Flame Ionization Detection/Micro Electron Capture Detection (GC-FID/ μ ECD)
Gas Chromatography with Mass Spectrometry (GC-MS)
Ultra Performance Liquid Chromatography with Mass Spectrometry (UPLC-MS)
Ultra Performance Liquid Chromatography - Tandem Mass Spectrometer (UPLC-MS/MS)



挥发性测试

EMISSION TESTS



许多产品中都含有挥发性有机化合物（VOC）。家具，家居用品和建筑材料会释放各种类型的VOC，这些VOC会影响室内空气质量并可能危害人体健康。许多国家都建立了强制性的或自愿性的评估手段，来分析从建筑材料和家具中释放的VOC、甲醛和其他有害物质。

ITCS拥有经验丰富的化学分析师，自2011年起开展VOC测试，每年可检测大约3,000个样品。

Volatile Organic Compounds (VOCs) are contained in many products. Furniture, household goods and construction materials can release various types of VOCs that affect indoor air quality and may harm human health. Many countries have established mandatory or voluntary assessment programs regarding the release of VOCs, formaldehyde and other hazardous substances from construction materials and furnishing.

ITCS has started VOC testing since 2011. We are staffed with experienced chemists, and around 3,000 samples can be tested each year.

测试技术

TESTING TECHNIQUES

气候仓
微仓
顶空
气相色谱-质谱热解吸 (TD-GCMS)

Climate chamber
Micro chamber
Headspace
Thermal Desorption with Gas Chromatography with Mass Spectrometry (TD-GCMS)

气候仓

CLIMATE CHAMBER SIZE

ITCS现在配备了近50个气候仓，容量从25L至24m³不等，可灵活用于测试不同尺寸的材料和产品。24m³也可用于整个房屋的产品组合测试。

ITCS are now equipped with 50 chambers, from 25L to 24m³, which can be used to test for material and products with different sizes. 24m³ can also be used for the whole house product portfolio test.

相关法规和标准

RELEVANT REGULATIONS AND STANDARDS

国际标准 (ISO 16000系列)
欧盟(EN 16516)
美国(BIFMA M7.1, CDPH)
德国(GEV, AgBB)
中国(GB 18587, GB/T 35601, GB/T 35607)

International (ISO 16000 series)
EU (EN 16516)
USA (BIFMA M7.1, CDPH)
German (GEV, AgBB)
China (GB 18587, GB/T 35601, GB/T 35607)



甲醛测试

FORMALDEHYDE TESTS



甲醛是存在于例如胶水和清漆中的一种化学成分。它也存在于天然木材中。高浓度的甲醛会刺激眼睛，呼吸器官和皮肤。甲醛也会引起过敏，并具有致癌性。甲醛测试可以检测出不同种类的产品和材料中的甲醛含量或释放量。

Formaldehyde is a chemical ingredient in, for example, glue and varnish. It also occurs naturally in wood. A high concentration of formaldehyde causes irritation to eyes, the respiratory organs and skin. Formaldehyde can also cause allergies and is carcinogenic. The tests are performed to determine the amount of formaldehyde in different kinds of products and materials.

测试技术

TESTING TECHNIQUES

- 气候仓
- 紫外可见分光光度计 (UV)
- 超高效液相色谱 (UPLC)
- Climate chamber
- Ultraviolet-Visible Spectrophotometer (UV)
- Ultra Performance Liquid Chromatography (UPLC)

相关法规和标准

RELEVANT REGULATIONS AND STANDARDS

- ISO 12460-1, -3, -5
- ISO 15373
- ISO 16000-3
- EN 717-1, -3
- EN 16516
- BIFMA M7.1
- ASTM D 6007
- GB 18580
- JIS A 1460



食品接触材料测试

FOOD CONTACT MATERIAL TESTS



食品接触材料是指：在包装、存储、食品加工、烹饪和相关家居用品中广泛使用的，与食品接触的材料。由于在接触的过程中，材料中产生的分子可以迁移到食品或饮料中，从而可能给消费者带来健康问题。我们需要确保这些转移出来的物质满足相应的限值要求。因此，必须对所有正常使用或可预见的所有与食品接触产品进行相关的测试，以确保符合法规并保护人类健康。

Food Contact Material are: the materials that are in contact with food and are used in a broad range of applications including packaging, storage, food machinery equipment and household items. During contact, molecules from materials can migrate into foods or beverages which might lead to healthy issues to consumers. They must not transfer their constituents into the foodstuff in unacceptable quantities. Therefore, all food contact products under normal or foreseeable use must be tested to ensure regulatory compliance and protect human health.

材料和产品

MATERIALS AND PRODUCT

塑料/金属/玻璃/陶瓷/搪瓷/硅胶/橡胶/木材/涂料/纺织材料/纸张
餐盘，玻璃器皿，餐具，锅碗瓢盆，炊具、食物容器，冷冻盒，水瓶

Plastics/Metal/Glass/Ceramic/Enamel/Silicones/Rubber/Wood/Coating/
Textiles/Paper
Plates, glassware, cutlery, pots and pans, utensils, food containers, freezer
boxes, water bottles

检测项目

TEST ITEMS

全迁移和特定迁移测试
金属释放
可萃取和可浸出物质
理化指标
挥发性有机物（VOM）
过氧化物
密度
熔点
感官测试（气味/味道）

Overall migration and specific migration tests
Release of metals
Extractable and leachable substances
Physical and chemical indicators
Volatile Organic Matter (VOM)
Peroxides
Density
Melting point
Sensory testing (smell/taste)

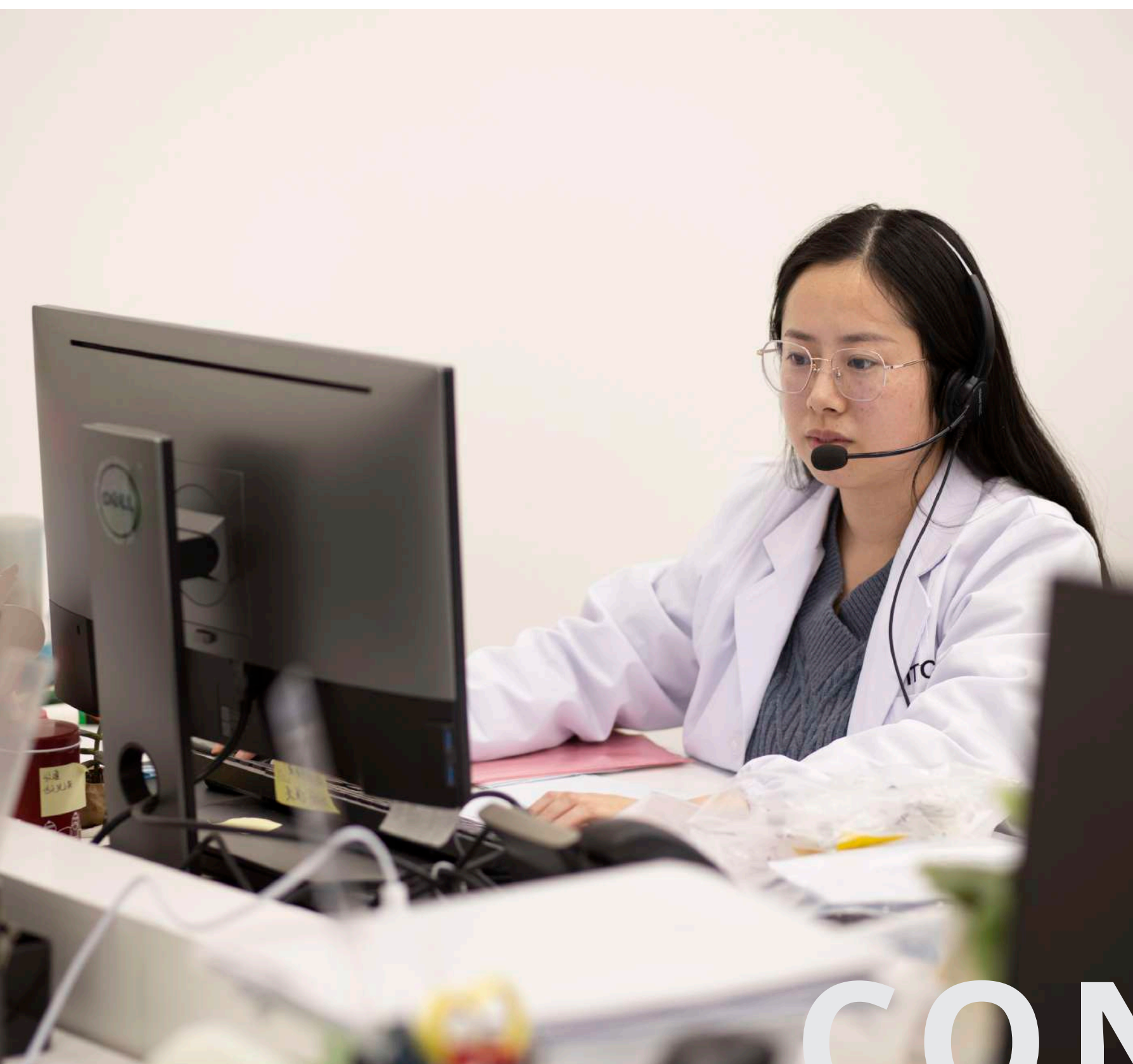
国际和地区要求

INTERNATIONAL AND REGIONAL REQUIREMENT

EU Directive/German/Italy Ministerial Decree
FDA 21CFR requirements
China GB Standard
Japanese Food Sanitation Act

欧盟指令/德国/意大利部长令
FDA 21CFR要求
中国GB标准
日本食品卫生法





咨询服务

CONSULTING SERVICES

基于测试背景，我们为用户提供不同市场测试方法和规范的技术咨询。

Based on testing background, we provide technical consulting related to the test methods and specifications, regulations of different market for our users.

CONSULTING SERVICES

培训服务 TRAINING SERVICES

针对不同群体的需求，我们设计并提供一系列培训服务。面向宜家供应商，我们提供相应技术培训，使得宜家产品质量要求得到更好的落实。同时，我们也为不同业务单位的宜家员工提供产品质量培训，普及产品质量知识，促进业务发展。

According to the needs of different groups, we design and provide a series of training services. For IKEA suppliers, we provide corresponding technical training so that IKEA product quality requirements are better implemented. At the same time, we also provide product quality training for IKEA co-workers in different business units, popularize product quality knowledge, and promote business development.



供应商开放日

Supplier open day



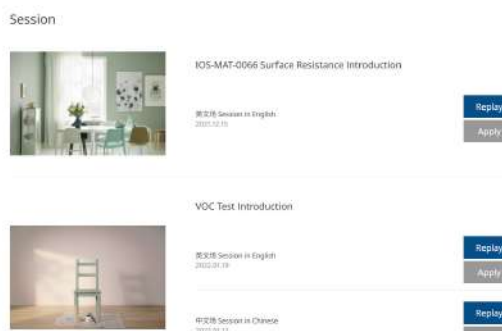
测试方法培训（供应商及采购）
产品或系列质量培训（零售）
（线上/线下）

Test method training
Retail range training
(Online/Offline)



定制培训
测试能力建立

Tailor-made training
Test capability establishment



For MYLIMS User

Online training video

Surface resistance test online training EN-20210421

Food contact materials test introduction (organic materials) - Session 1

Food contact materials test introduction (organic materials) - Session 2

Zipper's physical test introduction

IOS-PRF-003D upholstery products' flammability test introduction

Food Contact Materials test introduction- Metallic Materials (IOS-MAT-010B)

How to apply test in ITCS Mylims system introduction

Formaldehyde requirement on wood-based material

IOS-MAT-0066 Corrosion Test Introduction

IOS-MAT-0066 Surface Resistance Introduction

VOC Test Introduction



线上自主学习资源

Complete online self-learning
package

技术支持 TECHNICAL SUPPORT

我们为紧密合作的业务合作伙伴提供技术支持。基于对宜家规范的了解、产品测试经验及产品测试数据库，我们分享产品质量经验，以确保管控质量的流程更为顺畅。

We provide technical support to our close business partners. Based on our understanding of IKEA specifications and test experience and product test database, we share our product quality experience to ensure a smoother control process of IKEA product quality.



产品合规性审核
风险评估

Product requirement review
Risk assessment



实验室间测试方法比对
协助审核三方实验室

Test method harmonization among labs
Support to audit the third party labs



内部实验室审核
内部实验室建立

In-house lab audit
In-house lab set up



支持新产品开发
产品质量改进

Support product development
Product quality improvement

联系我们 CONTACT US

产品检测服务
Product testing service

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Tel: 021-3759 4848

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Scan to follow
WeChat public account
