



Choose certainty.
Add value.

Construction materials and products 建筑材料和产品

Inspection, testing and certification services for quality, safety and sustainability.

通过专业检验、测试与认证服务，确保产品的质量、安全性和可持续性。

Your challenges

Competitive pressure in the construction materials and products industry is driving manufacturers and suppliers to find innovative ways to balance product quality and price. At the same time, wear and tear of construction materials can occur due to use and exposure to climate conditions. Industry players need to ensure that their products can withstand these conditions and comply with increasingly complex national and international building standards and regulations. If they are unable to do so, building projects may be delayed and quality may be compromised, resulting in increased liability risks and shortened lifespan of their assets.

What services does TÜV SÜD provide for construction materials and products?

TÜV SÜD's range of services includes inspection, testing, certification, training, quality assurance systems, and safety and sustainability consultancy. Our experts are accredited to issue quality certifications according to a wide variety of international standards and directives.

面临挑战

建筑材料和产品行业的竞争压力正在推动制造商和供应商寻找创新方法来平衡产品质量与价格之间的关系。鉴于长期使用和气候条件等因素，建筑材料可能发生磨损。制造商必须确保产品不但能够承受这些条件的影响，而且符合日益严格的国内和国际建筑标准和法规。否则，建设项目可能会被推迟，质量受到影响，从而导致资产责任风险加大，产品使用寿命缩短。

TÜV南德意志集团针对建筑材料和产品提供哪些服务？

TÜV南德意志集团的服务范围包括检验、测试、认证、培训、质量体系认证及安全与可持续发展咨询。我们的专家备受认可，能够根据国际质量认证标准和指令进行检验、测试和认证，为通过认证的企业出具质量认证证书。我们针对材料和半成品开展测试服务，

We support manufacturers by carrying out testing and certification of materials and semi-finished products including ready-mixed concrete (RMC), cement, stone, sand, rebar, glazing, insulation materials, timber products, wall plasters, paints, varnishes, coatings, metal structural products, masonry products, road products, waterproofing membranes and sealants, and building facades.

Why are inspection, testing and certification important for your business?

Manufacturers of materials and semi-finished products are liable for the quality and performance of their goods over the short and long term. Product testing and certification assures manufacturers, property owners and developers that the construction materials used in their projects are able to meet these quality, safety and environmental sustainability requirements.

How can we help you?

TÜV SÜD's comprehensive suite of services allows you to fulfil the requirements of multiple export markets with a single trusted partner. We offer a one-stop approach to reduce project delays and provide quality assurance that helps to strengthen customer loyalty and confidence in your brand and its products. Our product inspection, testing and certification services also assist you in ensuring a high level of operational safety and reliability at your facilities.

Our services for construction materials

To promote the safety, stability and durability of buildings and infrastructure, we offer testing services in accordance to building and construction standards and regulations.

■ Testing and inspection

TÜV SÜD's experts help you ensure that the materials and products you use meet the stringent quality requirements of different global markets. We perform mechanical and chemical tests on-site or in our full-scale testing laboratories. Our tests and inspections include:

- Evaluation of material selection
- Raw materials analyses
- Damage analyses and assessments
- Non-destructive testing (NDT)
- Warranty testing for material lifespan
- Mechanical testing
- Material characterisation
- Curtain wall performance and skylight testing
- Acoustics testing
- Fire testing

为制造商提供支持帮助，覆盖范围包括预拌混凝土 (RMC)、水泥、石头、沙子、钢筋、玻璃窗、绝缘材料、木材产品、刷墙粉、油漆、清漆、涂料、金属结构产品、砌体产品、道路产品、防水膜和密封剂以及建筑外立面等。

为什么检验、测试和认证对您的业务非常重要？

提供材料和半成品的制造商必须确保其商品的短期和长期的质量与性能。通过产品测试和认证服务，可为制造商、业主和开发商提供切实保证，确保在建筑项目中使用的材料能够满足规定的质量、安全与环境可持续发展的要求。

如何为您提供帮助？

TÜV南德意志集团能够提供完整的服务，作为值得信赖的合作伙伴，满足多个出口市场要求。我们提供一站式服务，降低项目延误率，确保项目质量，有助于加强客户的忠诚度和对品牌及产品的信心。另外，我们的产品检验、测试和认证服务也能确保您的设施在使用时的安全性与可靠性。运营安全和高水平的可靠性。

我们针对建筑材料提供的服务

为了提高建筑和基础设施的安全性、稳定性和耐用性，我们根据建筑和施工标准及法规提供测试服务。

■ 测试与检验

TÜV南德意志集团专家帮助您确保您使用的材料和产品符合全球市场的严格质量要求。我们通过在现场或自有实验室内进行机械化学测试，测试范围包括：

- 材料选择评估
- 原材料分析
- 损害分析与评估
- 无损检测
- 材料寿命的测试
- 机械测试
- 材料特性测试
- 幕墙性能和天窗测试
- 声学测试
- 防火测试

- Green / ecological product testing
- Pipe testing
- Ready-mixed concrete (RMC) inspection
- Civil engineering related material tests
- Water tightness, leakage and wind pressure testing for facades
- Simulated corrosion / weathering resistance and outdoor durability
- Vibration, shock and stress-strain measurement
- Endurance and cyclic performance
- Metallographic and microscopic examination
- Welding inspections
- Maintenance inspections
- Risk assessment regarding potential special failure mechanisms
- Product type testing
- Regulatory testing according to building codes
- Load-bearing capacity and fatigue testing of girders
- Tensile testing on suspension cables
- Pre- and post-construction surveys
- Structural inspection and investigation works

■ Product certification

TÜV SÜD is a Notified Body for testing and certification of several materials and semi-finished products according to various international standards and directives. We provide:

- Certification of materials in compliance with international standards (ASTM, EN, BS, DIN, DVGW)
- Certification of metal, concrete, masonry, timber and road products as per European Construction Products Directive 89/106/EEC (CPD)
- Certification of ready-mixed concrete in SAC accredited plants according to SS EN 206-1, SS 544 and CT06 as per BCA requirements
- Product Listing Scheme (PLS) certification of building and fire safety material
- AD 2000-W0, TRD 100, KTA 3201.1, KTA 3211.1 and Pressure Equipment Directive 97/23/EC (PED) certification standards for manufacturers of raw materials used in pressure vessels and steam boilers
- Issue of particular material appraisals (PMA) as per PED 97/23/EC and preparation and verification of restamping approvals
- Preparation or review of material specifications
- Certification of recycled content in construction products according to the Leadership in Energy and Environmental Design (LEED) standard

- 绿色生态产品测试
- 管材测试
- 预拌混凝土(RMC)测试
- 土木工程相关材料测试
- 外立面的水密性、渗漏率与风压测试
- 模拟腐蚀、抗风化和室外耐久性
- 振动、冲击和应力应变测量
- 耐力和循环性能检测
- 金相和显微镜检测
- 焊接检验
- 维护检验
- 关于潜在的特殊破坏机理的风险评估
- 产品型式测试
- 建筑法规合规管理测试
- 大梁承载能力和疲劳测试
- 悬挂电缆的拉伸试验
- 施工前后调查
- 结构检验和调查工程

■ 产品认证

TÜV南德意志集团作为公正的第三方认证机构，根据各国标准和指令对材料和半成品进行测试与认证。我们提供：

- 符合国际标准(ASTM、EN、BS、DIN、DVGW)的材料认证
- 根据欧洲建筑产品指令89/106/EEC(CPD)对金属、混凝土、砖石、木材和道路产品认证
- 根据SS EN 206-1标准及BCA要求的SS 544标准对SAC认可的工厂进行预拌混凝土认证
- 建筑物和消防安全材料的产品上市计划(PLS)认证
- 根据AD 2000-W0、TRD 100、KTA 3201.1、KTA 3211.1标准和欧盟承压设备指令97/23 / EC(PED) 对压力容器和蒸汽锅炉的原材料制造商认证
- 依据97/23/EC出具特殊材料认可报告
- 材料说明书的准备或审查
- 依据LEED标准对建筑材料中可回收物质进行认证



- **Failure analysis**

TÜV SÜD's engineers can conduct scientific analyses to detect the root causes of material and product failures, and make recommendations to prevent future failures. We also provide technical support in dispute cases, including expert witness support in court.

- **Quality assurance and construction monitoring**

We offer a complete, project-oriented quality assurance system throughout the whole building construction, monitoring progress and inspecting materials and production processes to reassure all stakeholders on the technical and financial safety of the project.

- **Safety and sustainability consultancy**

TÜV SÜD's energy and safety experts provide comprehensive services addressing the effectiveness, safety and sustainability of all materials and products used in construction projects. We assess the energy consumption, energy efficiency and safety of all construction materials to ensure the structural stability, safety and fire protection of buildings and infrastructure. We also provide guidelines to meet the requirements of international sustainability rating systems such as LEED (U.S.), BREEAM (UK) and DGNB (Germany).

- **Training**

TÜV SÜD's global network of experts offers training programmes for ISO 9001, ISO 14001 and OHSAS 18001 management systems for manufacturers of construction materials, building owners and developers.

- **故障分析**

TÜV南德意志集团专业工程师可以通过科学的分析，发现材料和产品失败根源，提出建议以防止问题的再次发生。

- **质量保证、施工监控**

我们为整个建筑项目施工、进度监控和材料检验和生产过程提供全面完整、项目导向的质量认真系统，为所有利益相关者提供与项目相关的技术和资金安全保证。

- **安全与可持续发展的咨询顾问工作**

TÜV南德意志集团的能源和安全方面的专家为客户提供全面的服务，确保建筑项目中使用的所有材料和产品效能、安全性与可持续性。评估能源消耗、能源效率和建筑材料的安全性，确保建筑物和基础设施结构稳定、安全并且具有良好防火性能。另外，我们还提供指导方案，满足国际的可持续性评估的要求，例如：LEED(美国)、BREEAM(英国)和DGNB(德国)。

- **培训**

TÜV南德意志集团的全球专家网络为建筑材料制造商、业主和开发商提供定制化ISO 9001、ISO 14001和OHSAS 18001管理体系的培训课程。



Your business benefits

- **Protect your brand image** – with product testing and certification that reduces the probability of costly and image-damaging product recalls.
- **Accelerate time to market** – by meeting internationally recognised regulatory requirements and standards.
- **Minimise your risk** – of regulatory non-compliance and legal liabilities with our independent and impartial testing services.
- **Gain a competitive edge** – with independent thirdparty certification that improves product quality and safety, and boosts buyer confidence in your products and brand.
- **Receive global support** – from our experts who are available in all key markets around the world and are familiar with local requirements.

Why choose TÜV SÜD?

TÜV SÜD has more than 40 years of experience in testing and certifying construction materials and products. We hold an array of national and international approvals and accreditations, making us one of the world's most highly respected Certification Bodies. Our materials technology experts are familiar with all relevant sectors of real estate, industry, plants and systems, allowing us to offer a portfolio of services that range from determining the mechanical and chemical properties of materials to performing laboratory tests and site inspections anywhere in the world.



您企业的收益

- **保护品牌形象** —— 通过产品测试和认证，减少产品召回率，避免由此产生的高昂成本，防止品牌形象受损。
- **加快产品上市时间** —— 通过符合国际认可的法规要求和标准，加快产品上市时间。
- **降低风险** —— 通过独立和公正的测试服务降低违约和法律责任的风险。
- **获得竞争优势** —— 凭借独立的第三方认证，提高产品质量和安全，强化买家对于产品和品牌的信心。
- **获得全球技术支持** —— 我们的权威专家遍布全球、熟悉当地市场要求，为客户提供全球技术支持。

为什么选择TÜV南德意志集团?

TÜV南德意志集团拥有40多年建筑材料、建筑产品测试和认证经验。在国内和国际获得广泛认可，是全球最权威的认证机构之一。材料技术专家熟悉房地产行业、工业、相关设施和系统，能够为待测定材料提供机械和化学测试，并能通过我们全球的实验室网络提供实验室模拟检测服务。到实验室测试等一系列服务；同时与各地现场检验服务相组合。



Choose certainty. Add value.

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and knowledge services. Represented in over 850 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East and Asia. By delivering objective solutions to our customers, we add tangible value to businesses, consumers and the environment.

权威认证，创享价值

TÜV南德意志集团是一家优质、安全和可持续发展的专业测试、检验、审核、认证，培训和知识服务解决方案提供商。我们在世界各地超过850多个代表处，在欧洲、美洲、中东、亚洲和非洲备受盛誉。通过为客户提供客观的解决方案，公司为企业、消费者和环境增添有形价值。

Related services

TÜV SÜD provides the following related services:

- Civil and structural engineering services
- Mechanical, electrical and plumbing (MEP) services
- ISO 9001 – Quality management system certification
- ISO 14001 – Environmental management system certification
- OHSAS 18001 – Occupational health and safety management system certification

相关服务

TÜV南德意志集团提供以下相关服务:

- 土木及结构工程服务
- 机械、电气和卫生管道工程(MEP)服务
- ISO 9001质量管理体系认证
- ISO 14001环境管理体系认证
- OHSAS 18001职业健康安全管理体系认证

* Some of the services listed are provided due to local regulations only and may not be available in other regions. Please contact us for further details.

* 上述部分服务可能由于当地法规的原因而无法在您的地区提供。欢迎您与我们联系咨询。

Our branches in Greater China:

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