



Choose certainty.  
Add value.

## Construction materials and products

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

### 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. 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
- 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

#### ■ 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.

### 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 third-party 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.

### 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 800 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.

### 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