



SGS INTRON

**YOUR INNOVATIVE PARTNER IN BUILDING
MATERIALS AND PROCESSES**



SGS INTRON offers sustainable practical solutions for all your construction-related questions. With over 45 years experience in the field of material science, consultancy and innovation, we are your partner for building materials and building processes. As part of the global SGS group we can help, where others may not be able to, whatever your challenge may be.

WHAT CAN **SGS INTRON** DO FOR YOU?

We offer producers, contractors, architects, owners and branch organisations, governments and private parties a wide range of services.

You can rely on us for:

- Material testing of environmental, mechanical, durability, optical and other properties on either raw materials or (semi) finished products using internationally accepted standards or tailor-made methods
- Inspection and examination of (damage to) structures on location
- Project management, guidance and advice for all questions regarding construction products and processes
- CPR related testing and consultancy
- SCC safety training and examination for your staff





WE ARE A PARTNER **YOU CAN RELY ON**

SGS INTRON has an enthusiastic team of highly trained specialists, experienced all-rounders and young professionals who offer what you need, whether you have a quick question or a complex problem. We assist you with expert advice, and a personal and complete approach. We can conduct most types of material research in our accredited laboratory and have extensive knowledge of the latest developments concerning regulations; we work with the latest technologies and are constantly renewing and improving our service. In addition, we continuously attend workshops and courses to ensure that our expertise is of the highest standard. This means that you will always receive the best possible solution, of the highest possible standard.

GUARANTEE OF **INDEPENDENCE**

When you choose SGS INTRON, you choose an independent organisation. You can rely on answers and research results that are based on facts. These will be presented in a clear overview with information to get you started immediately. We work in compliance with current standards and have the necessary accreditations from the Accreditation Council. Our independence is verified by an external party. SGS also works in line with the SGS Code of Integrity and guarantees the security you are looking for, at all times.

PART OF A **GLOBAL ORGANISATION**

SGS INTRON is part of SGS: the world's leading company for inspection, verification, testing and certification. SGS is recognised as the global benchmark for quality and integrity. With more than 90,000 employees, SGS operates a network of over 2,000 offices and laboratories around the world.

AN OVERVIEW OF OUR SERVICES

The following pages provide an overview of our services. Please do not hesitate to contact us with questions or issues. We look forward to assisting you!



INSPECTION, RISK AND **DAMAGE FORENSICS** OF EXISTING STRUCTURES

Each year we inspect and assess hundreds of structures and damage to structures. Our examination will give you insight into the condition and (residual) lifetime of the structure, the extent and cause of damages and any related risks. Most of these examinations are carried out using non-destructive methods. Whether it concerns a major infrastructure project, a structure in a special environment, such as a marine or an underground environment, an ancient monument or a relatively young structure, our expert advice will help you to return the structure to good condition, and to maintain that condition. Our services include:

- A quick scan
- Structural assessment
- Forensic research on location, including the use of non-destructive examinations
- Laboratory testing of samples from a structure
- (Residual) lifetime assessment, assessment of maintenance conditions and need to repair/restore
- Drawing up of plans for maintenance and repair
- Guidance and monitoring of repair/restoration work
- Operational and completion monitoring
- Second opinion
- Impartial (judicial) examinations and mediation of damage conflicts
- Support during demolition or renovation, from strategic advice to project management



CPR

We help you to meet European requirements for your construction product, to enable you to use CE marking. We can conduct the necessary product testing in our accredited laboratory. To this end, our professionals combine their knowledge of the Construction Products Regulation (CPR) with in-depth knowledge of the construction material and the applicable product.

AN OVERVIEW OF OUR SERVICES

SUSTAINABILITY & ENVIRONMENT

We are industry leaders when it comes to future developments. We will help you to determine and optimise the sustainability and environmental performance of your building materials and products. Distinguish yourself in this area and meet all national and international standards. We can assist you with:

- Expert guidance and advice, for instance with regards to the re-use and the immobilisation of environmentally polluting substances
- Laboratory testing of materials and environmental testing, such as leach testing
- Advice concerning environmental product declarations (epd)
- Determination of the environmental product profile through life cycle analysis (lca)
- Determination of the technical sustainability (life) of construction products and structures

CONCRETE

Our concrete technicians, concrete maintenance specialists, material scientists and researchers know just about everything about this important building material. Using simulations, we can, for example, predict cracking of young concrete. We can help you to control the risk of hardening of concrete structures or to optimise the composition of a concrete mix for a certain application. We are also very experienced in the examination of (damaged) concrete structures, using NDT. In our laboratories, several high-technology methods are used to examine concrete samples in great detail. These include optical microscopy, electron microscopy and infra-red spectrometry. We can also assess and examine finishing layers on concrete, including coatings and floor systems.



AN OVERVIEW OF OUR SERVICES



MATERIAL TESTING IN OUR LABORATORY

We are able to perform most types of testing internally, usually in our own SGS INTRON laboratory. Not only do we have extensive and modern research facilities, we also have the knowledge and experience particularly in the field of materials research. We can, for instance, map relevant chemical, physical, optical, civil engineering and environmental hygiene properties of construction materials and assess these with regards to regulatory and/or application requirements. We also carry out safety and durability assessments and we test building products for performance in their application or in specific conditions, such as climatic. And finally, we regularly test samples from (damaged) structures to determine the extent and the cause of the damage. We can analyse, test and assess (samples of) the following materials/products for you:

- Asphalt/bitumen
- Cements
- Concrete
- Roofs, insulation, foils
- Granulates/aggregate materials
- Plastics
- Metals
- Sports floors
- Traffic management systems, signposting
- Coatings/preservation systems

NON-DESTRUCTIVE TESTING (NDT):

Non-Destructive Testing (NDT) is a test method used at locations that does not cause damage to the structure. For these tests, we use advanced techniques such as radar, potential measurements, ultrasound, thermography and coverage

meters. NDT is valuable during damage testing, but is also used to detect reinforcement and any defects in a concrete structure, as well as to determine risks related to the corrosion of reinforcement.

RESIDUAL MATERIALS, GRANULATES AND AGGREGATES

Construction and demolition waste, and residual materials from industrial processes can in many cases be reused as a secondary construction material. Think, for example, of furnace slag as a binding agent in concrete, LD-steel slag as a building block in water or mixed granulate from construction and demolition waste as a sand and gravel replacement in concrete. SGS INTRON has a leading role in all these successful recycling solutions. With our expertise in materials and construction practice, we can help you to find a suitable application for secondary raw materials, optimisation of properties and possible reprocessing. We can also provide the process management required for the acceptance of such product in the construction industry.

INNOVATIVE MATERIALS FOR ROAD CONSTRUCTION

We have developed various road construction innovations, such as rollable asphalt, ultra-quiet road surfaces and self-healing asphalt. We work closely and continually with road builders, the Ministry of Waterways and Public Works and TU Delft to create new, smarter, durable and better road construction materials and solutions.

MATERIALS IN THE BUILDING ENVELOPE

Do you produce materials for the building envelope, such as insulation materials, water-repellent roof membranes, vapour regulating membranes and elements for roofing or plate material for façades and ceilings or interior wall covering? Our high-quality tests can be used to visualise the required product properties which are often needed for certification purposes, such as water density, water vapour resistance, tensile strength and thermal resistance. This guarantees that your product complies with national and international legislation and that you can market it with confidence.

SAMPLING FOR MATERIAL TESTING, PRODUCTION CONTROLS AND BATCH INSPECTIONS

SGS INTRON is certified to sample soil and dredging spoils and non-shaped and shaped building materials. We are able to help you to determine particle size, the distribution of mass or composition, assess environmental and civil engineering standards for a certain application, production monitoring or support and give advice for product improvement.

TRAFFIC EQUIPMENT

We are the market leader in quality checks of traffic equipment within Europe. We inspect (dynamic) road signs and traffic lights and test them, as one of the few accredited laboratories, in accordance with EU standards. We also carry out regular research for product developments in this field.

AN OVERVIEW OF OUR SERVICES

SPORTS FLOORS

We inspect, test, certify and improve (components for) synthetic indoor and outdoor sports floors and artificial turf. We are familiar with the requirements imposed by sportsmen, sports federations, NOC*NSF, FIH and FIFA, and have knowledge of international laws and regulations. With our knowledge of the materials used and their technical characteristics, we help you to create sustainable and safe sports flooring that provides optimum sports technical performance. Examples of options:

- Material and construction testing
- Quality assessment of sports structures
- Examination of damage to sports structures
- Ce marking (for components) of sports floors
- Consultancy services in the field of sustainability, maintenance, and renovation
- Development and improvement of materials for sports floors and sports structures
- Second opinion

PRODUCT DEVELOPMENT

We offer innovative and creative solutions for smarter and more sustainable products. With our knowledge in the field of materials and many years of experience with challenging projects, we are able to link developments, changing needs and new insights. Examples are the development of innovative foam concrete for floating, energy efficient homes, sulphur concrete, geopolymers concrete and concrete with phase change materials.

DATA-SENSING

We are developing smart apps and equipment that collect 'big data' to assist with the collection of important data for the construction industry. We are using this, for instance, to provide an insight into the indoor environment of buildings or the use and comfort of roads and cycle paths.

SCC SAFETY EXAMINATION

SGS INTRON is an ISO certified, recognised testing office, which operates in the Netherlands. We offer expertise in safety, with tailored examinations for the Safety Checklist for Contractors (SCC), SCC self-study packages and SCC walk-in tests.

WE ARE HAPPY TO ASSIST YOU

Do you have a question or would you like to use one of our services? Feel free to contact us for more information. We are happy to assist and provide the best possible solution.

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WHEN YOU NEED TO BE SURE

