

### **COATINGS TESTING SERVICES**





# COATINGS

#### WHY SGS?

SGS is the world's leading inspection, verification, testing and certification company. Recognised as the global benchmark for quality and integrity, we employ over 80,000 people and operate a network of more than 1,650 offices and laboratories around the world.

Enhancing processes, systems and skills is fundamental to your ongoing success and sustained growth. We enable you to continuously improve, transforming your services and value chain by increasing performance, managing risks, better meeting stakeholder requirements and managing sustainability.

#### A GLOBAL REACH

With a global presence, we have a history of successfully executing large-scale, complex international projects. Our people speak the language and understand the culture of the local market and operate in a consistent, reliable and effective manner.

Wherever you are in the world, in whatever industry, you can rely on our international teams of experts to provide you with specialised business solutions to your business faster, simpler and more efficient. We partner you to offer independent services that will help you reduce risk, streamline your processes and operate in a more sustainable manner.

We have centres for excellence in coatings and polymer testing around the world including:

- SGS MIS Testing, Manchester, UK
- SGS Intron, Sittard, The Netherlands
- SGS, Shangai, China

Our highly qualified personnel, including NACE qualified coating inspectors, have extensive knowledge on all the relevant aspects regarding the protection of materials, including materials science, application methods and failure mechanism.

#### **COATINGS & POLYMERS SERVICES**

Our core services relating to coatings can be divided into three categories:

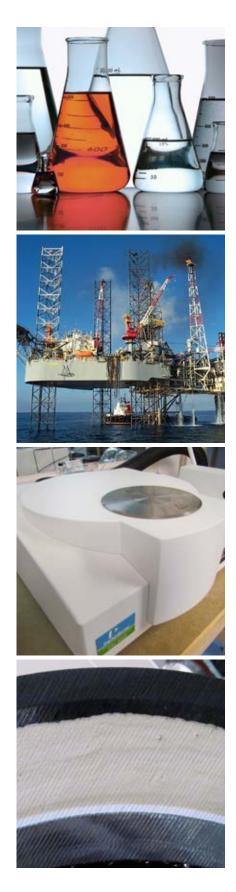
- Testing: our global network of testing facilities, staffed by knowledgeable and experienced personnel, enable you to reduce risks, shorten time to market and test the quality, safety and performance of your products against relevant standards and project specifications. Our testing is performed in accordance with all major national standards, including ISO, ASTM, DIN and NACE as well as project specifications and industry standards such as NORSOK M-501.
- Inspection: our coatings services are complemented by SGS's comprehensive range of worldleading inspection services, enabling you to control quality, while meeting all relevant requirements. We can place NACE certified personnel globally. Many of our experts are multi-disclipline inspectors.
- Failure investigation: at SGS, we can collect and analyse data on your products in order to determine the cause of failure. We are able to draw on leading talent across many disciplines, including polymer and materials scientists, metallurgical engineers, corrosion engineers and chemists. Our team of experts are on hand to ensure you get the answers you need.

#### SGS MIS TESTING LTD

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## CAPABILITIES

#### FOCUS ON LABORATORY TESTING

All of our laboratories hold accreditation for ISO 17025. We are proud to invest in best in class equipment to back up our number one asset – our employees. As a global leader, our capabilities are expansive. Our coating test laboratories have been specified to meet the demands of our customers. Below are some examples of the services we offer in coating and polymer testing:

#### **ADHESION**:

- Peel Adhesion
- Lap Shear
- Ring Shear
- Pull-off
- V-Cut/X-Cut (Cross-cut)
- Dog-bone Tensile

#### **ELECTROCHEMICAL**:

- Cathodic Disbondment (Ambient)
- Cathodic Disbondment (up to 150°C)
- Strain Polarisation
- Volume Resistivity
- Specific Insulation Resistance

#### **MICROSCOPY**:

- Foaming/Porosity Evaluation
- Crazing and Micro-cracking
- Cross-sectional Film Thickness
- Backside Contamination
- Surface Profilometry

#### THERMAL ANALYSIS:

- Differential Scanning Calorimetry
- Oxidative Induction Time/ Temperature
- Specific Heat Capacity
- Cure Time
- Decomposition Temperature
- Melting Enthalpy
- Thermo-gravimetric Analysis

#### **AGEING BEHAVIOUR:**

- UV/A/UV-B
- Xenon Arc and Carbon Arc
- Salt Spray Resistance
- Dry Heat and Wet Heat Ageing
- Hot Water Soak
- Chemical Immersion
- Atlas Cell
- High Pressure/Autoclave
- NORSOK Testing

#### **MECHANICAL DEFORMATION:**

- Indentation Resistance (Penetration)
- Impact Resistance
- Flexibility/Bend
- Shore A and Shore D Hardness
- Buchholz Hardness

#### **MECHANICAL PROPERTIES:**

- Tensile Properties (-80°C to 300°C)
- Compressive Properties
- Shear Testing of Polymers
- Flexural Modulus
- Cyclic Testing

#### **GENERAL TESTS**:

- High and Low Voltage Holiday
  Detection
- Moisture Content
- Gel Time
- Density
- Dielectric Strength
- Visual Examination/Failure Analysis
- FTIR/ATR Fingerprinting/Analysis
- Determination of VOCs

### WWW.SGS.COM WWW.SGS.CO.UK

MIS TESTING LTD IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

