

# **PROTECTIVE COATING MATERIALS TESTING**

ENSURE YOUR COATING SYSTEMS PERFORM IN ANY ENVIRONMENT



#### SAFEGUARDING YOUR COATINGS PERFORMANCE FROM QUALIFICATION TO OPERATION

Today's coatings are required to protect your critical assets in the most demanding markets and environments.

SGS can support you from qualifying the most appropriate product to ensuring correct application and testing to ensure continuous performance of your coatings system.

Our testing services provide an accurate insight into the protection properties of coatings in relation to adhesion, corrosion, electrochemical resistance, permeability, heat, abrasion and chemicals resistance, ensuring they meet both client and regulatory requirements. Our extensive experience in paints, polymers and metallic coatings, coupled with the latest technology, enables our laboratory experts to provide clients with the highest level of service.

SGS deliver driven cost-effective coating solutions which enable customers to reduce risk, shorten time to market and

test the quality and performance of products against relevant standards and project specifications. Our laboratory experts provide a fast turnaround time for tests whilst ensuring the health and safety of its staff and visitors.

### QUALIFICATION TESTING TO MAXIMISE PRODUCT PERFORMANCE

SGS's expertise in gualification testing for protective coatings systems falls under two main specifications, namely ISO 12944 and NORSOK M-501. These specifications combine both application and testing requirements which vary depending on the environment in which the final coating will be utilised. Conditions include heated buildings with neutral atmosphere and low pollution, which require salt spray and humidity testing, through to challenging marine, offshore, estuaries and coastal areas with high salinity which require cyclic ageing, seawater immersion and cathodic disbondment testing.

Testing is carried out on multiple test panels using various test methods;

- Salt spray
- Humidity testing
- Cathodic disbondment testing
- Cyclic ageing combination of salt spray, UV resistance and freezing
- Fire testing

Following the exposures assessment are carried out to;

- Assess the surface
- Measurement of corrosion creep and cathodic disbondment
- Compare the adhesion to unexposed references
- Product indemnification (FT-IR finger printing)

# ARE YOU PROPERLY PREPARED?

As part of your testing needs, SGS can witness the application of coatings to ensure surface preparation and spray applications are correct. Witnessing requires highly qualified NACE & FROSIO inspectors, and the testing should be carried out using accredited independent test facilities.



### **OTHER TESTING CAPABILITIES**

- Adhesion
- Bend Testing
- Impact
- Pencil Hardness
- Abrasion Taber
- Salt Spray
- Humidity

- Kesternich\*
- Atlas Cells
- Cyclic Conditioning
- Weathering
- Immersions- Water
- Heat Ageing
- Immersion Chemical

- Water Vapour Transmission
- Determination of VOC content
- Volatile Content
- Volume Solids
- FTIR
- Non-volatile content

### PREVENTION THROUGH FAILURE AND DAMAGE ANALYSIS

If you experience a failure it is essential to identify the mechanism of failure and establish the root cause with the aim of preventing the problem from arising in the future. SGS 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.



## WHY SGS FOR YOUR COATING TESTING?

SGS's centre of excellence for coatings and polymer testing is based in Manchester, UK with complementary laboratory capability in The Netherlands, China and USA.

Our laboratories are accredited to ISO 17025, ISO 18001 and ISO 9001 and perform testing in accordance with all major international standards, including ISO, ASTM, DIN and NACE.

Our highly qualified personnel,

including NACE & FROSIO qualified coating inspectors, have extensive knowledge of all relevant aspects of material protection; including materials science, application methods and failure mechanism.

### **ABOUT SGS**

SGS is the world's leading inspection, verification, testing and certification company. SGS is recognised as the global benchmark for quality and integrity. With more than 95,000 employees, SGS operates a network

### 89 TESTING LABORATORIES IN 57 FACILITIES IN 21 COUNTRIES WORLDWIDE

30

3s

34

#### GEOGRAPHICAL FOOTPRINT OF INDUSTRIAL TESTING SERVICES

- Coatings/Polymer Laboratory (13)
- Metal Laboratory (35)
- Construction Laboratory (24)
- Calibration Laboratory (10)
- Geotechnical Services (8)

of over 2,400 offices and laboratories around the world.

We provide competitive advantage, drive sustainability and deliver trust. At SGS, we are continually pushing ourselves to deliver innovative services and solutions that help our customers move their businesses forward.

### **CONTACT US**

To learn how SGS can help you exceed customer expectations, visit www.sgs.co.uk or contact gb.coatings@sgs.com.

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