



Institut de la Corrosion
French Corrosion Institute

Coil coated materials

Building Industry

Automotive Industry

Appliance Industry

*Research and Development,
Life prediction and material selection,
Failure analysis, etc.*

The French Corrosion Institute, a subsidiary of **SWEREA KIMAB** (Sweden) is one of the leading organizations in Europe in the field of coil coatings. It includes two sites located in Brest and Saint-Etienne, with a task force of 40 engineers and technicians. Together with SWEREA KIMAB, more than 80 employees work in the area of corrosion protection.

Partner and coordinator of numerous R&D projects in collaboration with the Industry, our objectives are :

- To evaluate the corrosion resistance of coil coated products used for different markets
- To study the application of new environmentally friendly products
- To assess the corrosion resistance of coil coated materials with surface functionalities
- To develop new coil coated products with improved long-term resistance

We can offer

- **Participation to cost-shared projects**
- **Consultancy and Advices**
 - Selection of materials
 - Failure analysis
- **Laboratory tests**
 - Salt spray tests
 - Prohesion test
 - Bac-Ford test
 - Q-panel condensation test (QCT)
 - Durability aspects
 - Tests according to automotive standards
 - And other tests according to demand from customer

- **Field tests**



Facilities

Field testing

- A unique worldwide network of exposure sites with various corrosivity categories from C2 to C5M for steel. The field station of Brest is within the Eurodes programme of the European Coil Coating Association (ECCA) through EN 10169 standard.
- SCAB testing (ISO 11474)
- Determination of corrosivity of indoor and outdoor atmospheres

Laboratory testing

- Climatic chambers with humidity and temperature regulation
- Salt spray chambers
- Automated chambers for cyclic corrosion tests with salt pollution, wet and dry phases
- QUV chambers
- Condensation chambers
- Chambers for tests in presence of low amounts of specific air pollutants (organic acids, etc)

Methods of analysis

- Electrochemical techniques
- Scanning Kelvin probe (SKP)
- Infra-red spectroscopy and micro-spectroscopy
- Optical microscopy and image analysis
- Scanning electron microscopy (SEM)
- Paint adhesion testing
- Carbon slurry test
- Color and gloss measurements, etc

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