

Automotive Corrosion

Corrosion Testing

Surface Technology

Joining Technology

Research and development, field surveys, life prediction and material selection, etc

Swerea KIMAB together with its French subsidiary Institut de la Corrosion (IC) is one of the leading organizations in Europe in the field of automotive corrosion.

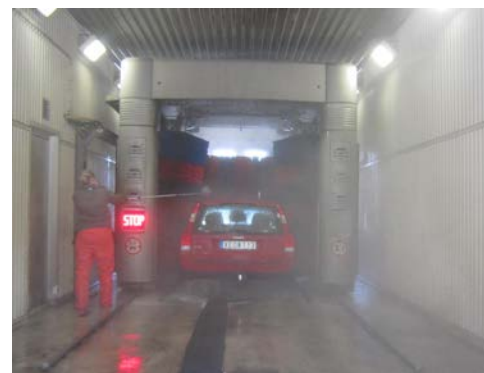
With a staff of more than 150 engineers and technicians we have one of Europe's highest competence concerning corrosion and corrosion protection. In the field of automotive corrosion we offer our expertise to automotive manufacturers and their suppliers in accelerated corrosion tests or field exposures, surface technology, joining technology, mechanical testing etc.

Partner and coordinator of numerous R&D projects in collaboration with the Industry, the following topics are covered:

- Mechanisms of corrosion of materials used in the automotive industry
- Application of new products with environmentally friendly systems
- Assessment of the combined effect of corrosion and fatigue on joined materials used in automotive industry
- Evaluation of the risk of perforation corrosion
- Monitoring of the corrosion and the road environment on running vehicles
- Development of accelerated corrosion tests for automotive materials
- Corrosion issues in connection with the use of biofuels
- High strength steel and related issues, e.g. hydrogen embrittlement
- Light weight alloys (aluminum, magnesium)
- Corrosion of electronics
- Development of corrosion sensors



Photo: PSA



We can offer

Participation in joint industrial projects

- Several projects in progress

Consultancy and Advices

- Design
- Improved corrosion protection
- Selection of materials
- Failure analysis

Laboratory tests

- Tests according to automotive standards: Renault ECC1 D17/2028, Volvo STD423-0014, Volvo VCS1021,1449, VDA621-415, VDA 233-102, etc.
- Salt spray tests
- Fatigue-corrosion tests
- And other tests according to demand from customer

Field tests on operating vehicles and on stationary sites

- Mobile exposure in areas with de-icing salts
- Stationary exposure in marine atmosphere
- Monitoring of the corrosivity and the road environment on running vehicles

Surface Technology

- New surface pretreatment systems
- Corrosion performance of new metallic coatings

Other Related Topics

- Joining Technology
- Mechanical Testing
- Fatigue Testing
- Crash Testing

Education

- Corrosion courses in our laboratories or on site

Swerea KIMAB is organizing a Member Research Consortium in the field of automotive corrosion with more than 20 companies representing car manufacturers and producers of automotive materials from all over the world. This MRC constitutes an unique industrial network in the field of automotive corrosion, where numerous R&D projects are carried out.

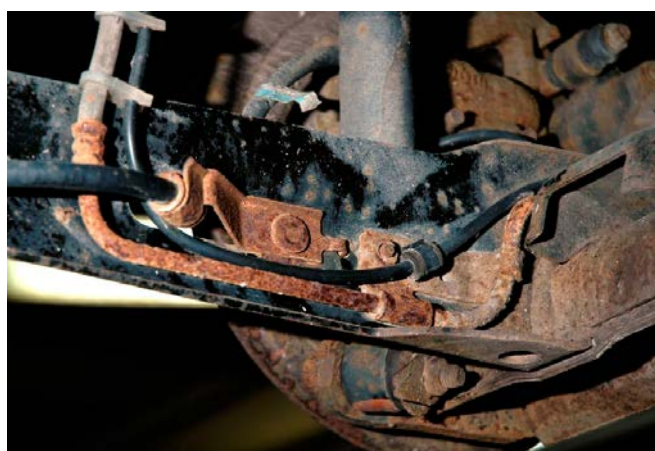
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