



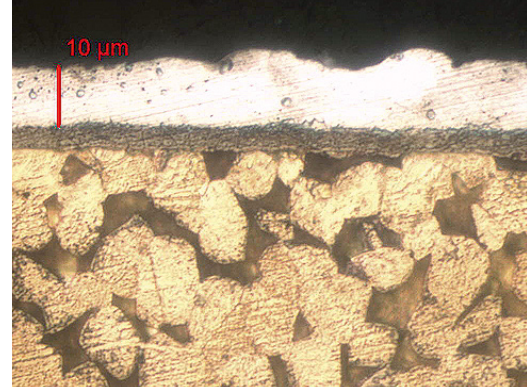
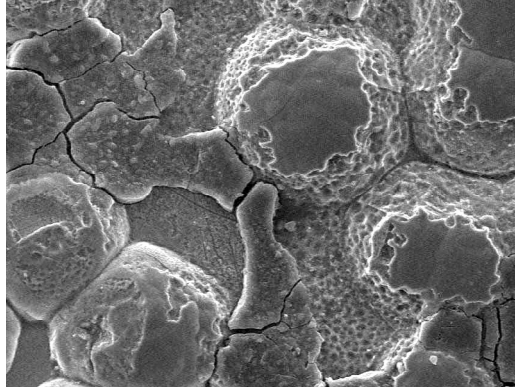
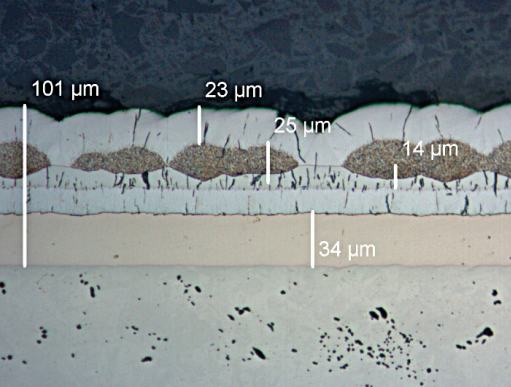
Surface Testing

Surface testing for coated components for industrial and consumer goods

We carry out a surface test both to characterize surfaces and their properties and to check the protective function of the surface coating (for example, corrosion protection, UV/light protection, mechanical stress, media resistance, coating thickness). As an accredited testing laboratory, we also offer surface testing according to Volkswagen, BMW and Daimler for automobile manufacturers and their suppliers within the scope of common test specifications, both on the individual component and on the ASSY.

Testing of coatings

- ▶ **Material determination**
 - OES analysis to determine the chemical composition
 - REM/EDX analysis to determine the chemical composition
 - IR/DCS analysis
- ▶ **Preparation of specimens with target preparation**
- ▶ **Layer thickness measurement in cross section according to DIN EN ISO 2808**
- ▶ **Adhesion testing**
 - Temperature shock test according to DIN EN ISO 2819 and TL 244
 - Cross-cut tests according to DIN EN ISO 2409
 - Testing of galvanic zinc coatings according to DIN EN ISO 50961 in conjunction with DIN EN ISO 2081
 - Stone impact resistance according to DIN EN ISO 20567-1
- ▶ **Hardness testing of coatings**
 - Metallic coatings with micro-Vickers according to DIN EN ISO 6507
 - Organic coatings with ball indentation hardness and Shore hardness according to DIN ISO 48-4 and DIN EN ISO 868
- ▶ **Functional test/continuous test bench determination of wear**
 - Abrasion tests with different grain sizes
 - Crockmeter - frictional resistance test according to DIN EN ISO 105-X12
- ▶ **Durability tests**
 - Determination of the behavior towards liquids according to ISO 1817 and DIN EN ISO 2812
 - Media resistance tests according to VW 50002 (also blow-by gas mixtures)
 - Resistance to cream according to PV 3964
 - Determination of resistance to environmental stress cracking according to DIN EN ISO 22088
- ▶ **Residual dirt analysis according to VDA 19 / ISO 16232**
- ▶ **Microscopic tests**
 - Microgrind coating system check
 - REM/EDX analysis for determination of coating systems



Climate and corrosion tests of coatings

► Climatic tests

- Refrigerated storage according to DIN EN 60068-2-1
- Heat storage according to DIN EN 60068-2-2
- Temperature change test according to DIN EN 60068-2-14
- Humid heat, cyclic according to DIN EN 60068-2-30 Db, version 1
- Condensate change test according to DIN EN 6270-2
- Artificial irradiation or weathering according to DIN EN ISO 4892-2
- BMW PR 303.4 and PR 303.5
- Daimler DBL 5306
- VW PV 1200 and PV 2005

► Salt spray test (NSS-Neutral Salt Spray) according to DIN EN ISO 9227 (DBL 7399, PV 1210, PV 1209, TL 244, TL 260)

► Testing of coatings and paintwork according to

- DIN EN ISO 10289 - Corrosion testing of metallic and inorganic coatings
- DBL 7391 - Coatings and paints, DBL 8465 - Electroplated plastic parts
- VW TL 226 - Paints on vehicle interior materials

Other services you can profit from

As a central and international DEKRA laboratory service provider, our experts offer an interdisciplinary range of tests covering chemical safety and material quality.

These include environmental and hazardous material analyses, pollutant and emission tests of consumer goods and technical products, tests of operating materials and components, material analyses of plastics and metals, material tests, environmental simulation tests and damage analyses. Our DIN EN ISO/IEC 17025 accredited laboratories of DEKRA Automobil GmbH in Germany are located in Bretten, Halle, Saarbrücken and Stuttgart.

In addition, we offer a variety of further testing and certification options in our worldwide DEKRA laboratory network.

DEKRA Automobil GmbH

Materials Testing and Damage Analysis Laboratory

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