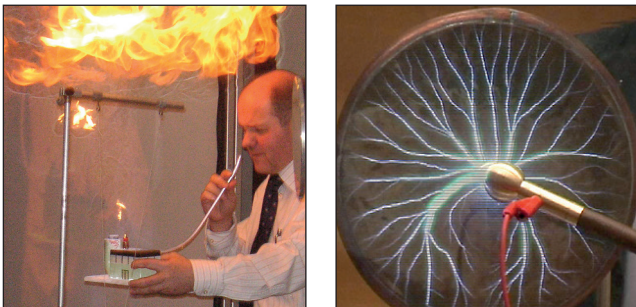


Minimizing safety risks by focused education and further training!

With the objective of "Identifying - Removing - Avoiding", it has become proven practice to not only explain the complex phenomenon of electrostatic charging, especially its emergence and effects, but also visualize it by means of comprehensible demonstration and presentation.

This is being provided in our new training programme combining knowledge transfer and experiments presented by our members of staff who have long-standing experience in this field.



Explaining the basics of electrostatic charges in experiments

Expert Competence and Equipment

Following technical development, the IHD creates new test methods and develops them further, especially with regard to intermediate bulk containers (IBC) and floor covering, to be contributed by the institute's experts to ISO, EN and DIN standardization bodies.

The EPH, the test laboratory of the Institut für Holztechnologie Dresden, has been accredited in accordance with the requirements of standard ISO 17025 for a variety of test methods that are of importance for the assessment of electrostatic properties of devices, components and protective systems.

Apart from its metrological equipment in suitable and conditioned test rooms, the test laboratory also has at its disposal mobile systems for on-site measuring.

Contact partners

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Electrostatic Testing



Testing of Electrostatic Properties of
 Materials and Components

Safety-relevant Assessment

Training on Offer
 "Identifying - Removing - Avoiding
 Electrostatic Charging"



Deutsche
 Akkreditierungsstelle
 D-PL-11054-01-00
 D-ZE-11054-01-00

Safety-relevant Assessment

As an accredited laboratory, we will help you to prove quality by independent testing.

Heavy electrostatic charging may occur in technical processes, which could result in igniting gases, vapours and dusts or in disturbances of any nature. There is the requirement to assess all potential sources of ignition for any electrical and non-electrical elements applied in areas that are exposed to explosion, including the ignition source of "electrostatic charges". This applies to electrical and non-electrical devices, components and protective systems subject to Directive 94/9/EC (ATEX) to the same extent as it applies to equipment not subject to this Directive, such as vessels, pipes or accessories.

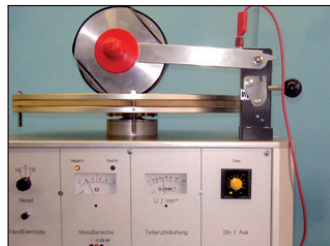
In order to properly evaluate ignition hazards caused by electrostatic charging, the EPH, the test laboratory of the Institut für Holztechnologie Dresden, offers manufacturers, sales agents and monitoring institutions a wide range of test methods for electrostatic properties of materials, device components and protective systems that are not subject to Directive 94/9/EC (ATEX).



Measuring the charge transfer to evaluate the ignition hazard



Assessing the safety of RIBC including accessories



Determining surface charging following defined friction



Testing of tank systems and Components

Investigation of Electrostatic Properties of Components and Protective Systems for Application in Areas Exposed to Explosion

Our Services

- **Measuring Resistance**
Testing of surface, volume and leakage resistance acc. to IEC 60093, IEC 60079-0, EN 1081, EN 61340-2-3, EN 61340-4-1: 2003 and others.
- **Measuring Charge Transfer**
On electrostatically charged surfaces acc. to IEC 60079-0 or EN 13 46 3-1 Annex C, e.g., measuring the transferred charge of plastic surfaces after their charging due to friction with three different materials (cloths) and/or charged by a corona.
- **Determination of the Dielectric Strength of Insulating Materials**
Acc. to IEC 6024 3-2, e.g., of film or other coating material
- **Evaluation of the Ignition Hazard due to Electrostatic Charging**
Of conductive and non-conductive materials, device components, structural elements and protective systems for application in areas that are not subject to Directive 94/9/EC (ATEX) pursuant to Technical Report TR 50404:2003 "Code of practice for the avoidance of hazards due to static electricity" or Provision BGR 132 of the German Occupational Health and Safety Insurance,
- **As well as Its Evaluation and Derivation of Measures for Its Avoidance**
e.g. for
 - rigid and flexible intermediate bulk containers (RIBC, FIBC)
 - plastic housings, pipes, cladding, etc.
 - coated surfaces
 - film
 - floors
- **Product Testing**
For flexible intermediate bulk containers (FIBC) of Type C acc. to IEC 613 40-4-4

- **On-site Measuring of Electric Fields and Potentials in Machine Systems and Plants for Assessment of Hazards due to Electrostatic Charging**

The "Surface Testing" Laboratory, as the laboratory of the Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH), has been accredited by the German Accrediting System for Testing (DAP) acc. to DIN EN ISO/IEC 17025:2005.

Education and Further Training

Seminar on "Identifying - Removing - Avoiding Electrostatic Charging"

Unfortunately still today, hazards caused by electrostatic charges are more than often underestimated. Heavy electrostatic charges may occur in technical processes, resulting in the ignition of gases, vapours and dusts or in disturbances of any nature. For this reason, the evaluation of the chargeability of materials and surfaces and the probability of hazards arising therefrom is of special interest in company education and training.

Therefore, knowledge of the basic principles of the electrical field is extremely important to understand and purposefully influence and avoid hazards in technological processes or procedural operations.

Although "electrostatics" is the oldest partial discipline in electrical engineering, electrostatic phenomena as interfacial effects are still hard to explain for their multitude of influencing parameters (humidity, temperature, the degree of surface contamination). Mainly thought to enhance the understanding of the electrophysical workings, this seminar will help to find solutions in the most varied practical tasks (e.g., identification of sources of hazard under specific operational conditions).