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# check it!

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## Europe's fire protection elite at the MPA NRW

■ ■ ■ From 6 till 8 October 2010 Europe's chief fire protection experts met at the MPA NRW for their annual EGOLF meeting.

The conference, organised by EGOLF (European Group of Organisations for Fire Testing, Inspection and Certification) was able to reach further steps to harmonise the European fire protection regulations. The association founded in 1988 has decisively advanced the European agreement for testing the fire behaviour of building

materials or building components. Thus central trade barriers among the countries of the EU could be eliminated: In the meantime many test methods have been uniformly regulated as well as their evaluation and application.

The fire expert association is also leading with regard to the concept and the realisation of training throughout Europe. EGOLF training courses are

also an integral part of the service offer of the MPA NRW. By the way, the fire protection experts of the MPA NRW were co-founders of EGOLF.

The graduate engineer Hendrik Rademacher who as head of the department is in charge of the fire testing centre Erwitte in the MPA NRW was delighted about the important guests: "By meeting in our company EGOLF has appreciated the technically excellent work of our fire protection experts who have been assisting in the development of uniform European standards for many years."

### ■ ■ ■ | EGOLF Meeting: Fire test in Erwitte

On 7 October the 59 participants of the EGOLF meeting could witness a fire test in the fire testing centre Erwitte. The department head, Hendrik Rademacher, graduated engineer, (with microphone) explained the details of the 20 minute test that ascertained the spread and the destruction level of a room fire.

Altogether 59 experts from 28 countries attended the EGOLF meeting that took place in Dortmund and in the fire testing centre in Erwitte. There they could witness a fire test where the thermal attack on the exterior wall of a building was simulated by flames.



## Excellent education and training

- ■ ■ The quality of apprentice training in the MPA NRW is high – just like the satisfaction of the trainees.

“The apprentice training in the MPA NRW is excellent.” This is the unisonous statement of Viviana Mandala (23) and Christina Pradel (24) who were both trained as a chemical laboratory assistant at the MPA NRW. Since July this year Viviana Mandala has accomplished her training. She was the only chemical laboratory assistant of her year to pass the examination before the Chamber of Industry and Commerce with the mark “A” and can now call herself the best trainee: “I was very happy to begin my apprenticeship at the MPA NRW after ten weeks of work placement. After the

theoretical basic education at the University of Technology in Dortmund I gained a great insight into practical work in the testing laboratories and feel really fit in all fields.”

Christina Pradel has also successfully accomplished her training at the MPA NRW. She decided to make an application at the MPA NRW after a period of work placement in another company. During her apprenticeship she was impressed by the fields of activity: “Especially the variety of



Praise for their company that takes on trainees, MPA NRW: Christina Pradel and Viviana Mandala

tests at the MPA NRW is something special. I was able to look into many departments.”

## Uniform surveillance

- ■ ■ The MPA NRW initiated an exchange of experiences of surveillance organisations for composite heat insulation systems.

The surveillance standardisation of composite heat insulation systems and insulation composite elements was on the agenda of a meeting of six approved surveillance organisations that took place at the beginning of March 2010 in the fire testing centre Erwitte. During the exchange of experiences initiated by the MPA NRW it became apparent that the differences in surveillance procedures are not so great to be an obstacle in standardisation. Wolfgang Schreiner, graduated engineer from the fire testing centre Erwitte was satisfied with the results of the meeting: “We could reach concrete agreements concerning the extent of regular external surveillance of manufacturers’ works.” In future the range of products named in an approval is to be drawn at least once in the validity period. The work’s own production control is to be controlled on every survey visit. The fire behaviour of composite heat insulation systems and



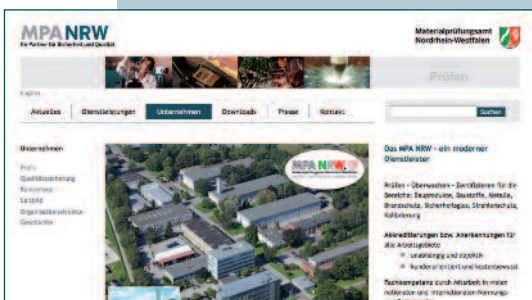
Testing the fire behaviour of composite heat insulation systems

insulation composite elements is to be ascertained twice a year by the external survey organisation. Furthermore, their own surveillance proofs are to be used for the batt insulations of the combined systems in order to avoid “double” external surveillance.

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### ■ ■ ■ | Refurbished: [www.mpanrw.de](http://www.mpanrw.de)

In mid-December the internet presence of the MPA NRW will present itself in a new look and with enhanced contents. “We will offer our business partners, experts and the interested public more information about the work of our state company and also be able to make many important details about the harmonised European regulations available”, says Martina Fahnemann, head of the marketing department. The new website offers better overviews of the services of the MPA NRW as well as many interesting details and insights into material tests.





# Chemical analytics: What comes out of the tap?

■ ■ ■ An increasingly important branch of business: The MPA NRW ascertains the metal release of sanitary fittings into the drinking water.

After the employees of a pizzeria had had regular health problems over a longer period of time they had the idea what the reason for this could be: Most of the employees like to drink a glass of tap water from time to time. A rather dangerous habit, as the test of the MPA NRW attested: The analysis of the drinking water proved a higher lead concentration caused by old lead drinking water pipelines.

Pizzerias as a client are rather seldom for the MPA NRW. But the "Laboratory for inorganic analytics" deals with clean drinking water every day – as a target. "We test sanitary fittings with regard to whether they emit metal into the drinking water. These metals are usually lead, nickel, chromium or zinc", explains the head of the laboratory, the graduated engineer Karl-Heinz Demant. His clients are the manufacturers of the fittings. They introduce recent developments to the market in ever shorter periods of time. This is due to the fact that the limit values for drinking water are becoming stricter and also the primary products of these sanitary fittings are becoming more expensive: Instead of using (expensive) brass, manufacturers now experiment with higher

amounts of aluminium. However, doing this could again result in problems with metal traces, as Karl-Heinz Demant knows: "When bonding a nobler metal like brass with a base metal like aluminium, parts of the base metal always release themselves and emit traces into the drinking water."

## Saving time with comprehensive tests

With mass spectrometry the laboratory of the MPA NRW can ascertain fast and reliably whether the limit values are threatening to be exceeded. We work fast and reliably because we have high-quality appliances like an ICP-MS-spectrometer. These appliances can show extreme traces of metals and define them. Not to forget the knowhow of the employees of the MPA NRW: "Due to our long-term experience in the testing business we have become so flexible that we can also help the clients with unusual requests – for instance when they come to us with a length of pipe or an angle valve", says Karl-Heinz Demant. "We understand ourselves as a partner of the manufacturers and accompany their recent developments with professional advice."



**Important advisors for manufacturers developing new products – the team in the laboratory for inorganic analytics. From right to left: Karl-Heinz Demant, Petra Kopietz, Beate Kochon and Brigitte Dinse.**

A further advantage for the manufacturers of sanitary fittings: They save time because the MPA NRW can offer them a comprehensive testing of their products: "Besides the chemical analysis of the material and the metal release we also ascertain the noise emission of the fitting and conduct mechanical long-term performance tests and tightness tests.

The second mainstay of the laboratory is the analysis of the chemical composition of metal materials. The MPA NRW already began with this as a partner of the steel industry in the 1950's. Today many test orders come from small and medium-sized companies that import metals or alloys from Asia or Eastern Europe and want to know whether the consignment is in good order. "The error rate of these imported products is increasing. Here our analyses give our clients certitude."

Thus a line of business that has nearly come to a stop at the MPA NRW due to the migration of the steel industry from the Ruhr district is again becoming more important.

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## New in the laboratory: the gas chromatograph

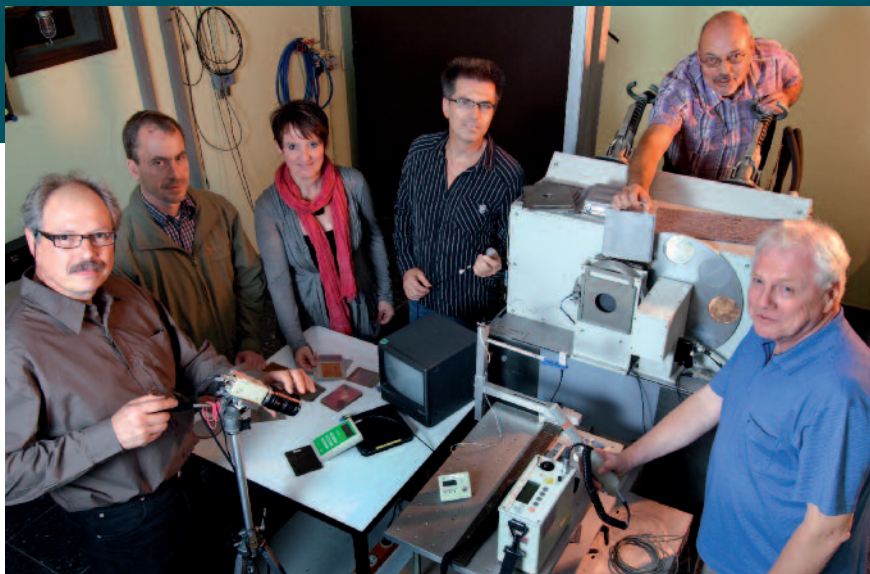
The equipment of the MPA NRW maintains a high level: The new appliance in the laboratory for inorganic analytics is a gas chromatograph with mass spectrometer. This ascertains for instance inorganic parameters that are released from gaskets and oils. Thus the MPA NRW can also determine the evaporations of plastic substances. This so-called fogging is also interesting for the automobile industry.



## Reliable and on schedule

■ ■ ■ The MPA NRW banks on team work. The “Expert Department X-Ray Ordinance” can score with this.

The industrial use of X-rays is increasing. Apparatuses in quality control X-ray the materials in order to ascertain material faults. For instance in the



Team work in the expert department (from left to right): Manfred Bilstein, Michael Mueller, Eva-Maria Eichhorn, Per Schulz, Norbert Sauerwald, Wilfried Grimm.

tank construction but also in the rim production for sports cars the smallest flaws are detected that can lead to fatal consequences in later use. Manfred Bilstein is responsible for testing X-ray units in the MPA NRW and reviews the clients' units every five years as prescribed: “They work absolutely reliably – even the smallest material cracks or blowholes are detected.”

The graduated engineer is one of six staff members in the “Expert Department X-Ray Ordinance” of the MPA NRW. The officially appointed centre controls X-ray units in medical practices, hospitals and industry whether the limit values stipulated by law are observed. In a doctor's surgery not only the apparatus resp. the protective clothing of the staff and patients are checked but also the rooms. “Among other things it is vital that the screening on the doors do not allow rays to pass through”, explains Wilfried Grimm, graduate engineer, head of the expert department.

### We are well organised

When being at the client's place he does not only tick off the check list but is also there for questions. “A hospital director recently wanted to make physical alterations in the environment of an X-ray unit and was not sure if

they would be approved. Here our good contacts to the supervisory authorities are of great help: We could give a fast response to his questions.”

Which advantages do the clients have if they order the MPA NRW? “We know all appliances available on the market. And we can also react to special client requests, are flexible and we are on schedule, thanks to the good organisation of our team”, explains Eva-Maria Eichhorn, graduate engineer and team member. She also names another advantage: “We as a state company are considered to be very reliable.”

This is an important requirement in the testing business, as all parties involved carrying a great responsibility: health damages due to too high radiation doses appear sometimes only after decades.

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### ■ Edition notice

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### ■ ■ ■ | Personnel updates

There has been a change in the head of the project group “Technical Innovations” of the MPA NRW: the graduate engineer Artur Orlikowski, section chief and head of the certification department of QM-Systems has taken over the duty of initiating and encouraging improvement suggestions on behalf of the company's employees from the graduate engineer Dieter Goedecker.



**New head, new motto: “Nothing is more powerful than an idea, the time of which has come.**

construction of appliances for the continuous measurement of compressive strain relaxation or a more efficient wet cleaning in the fire testing centre Erwitte with a significant saving of energy.

The head of the department for building security has occupied this position in the MPA NRW for five years. During his responsibility many valuable innovations were received from the employees' suggestions: among other things the