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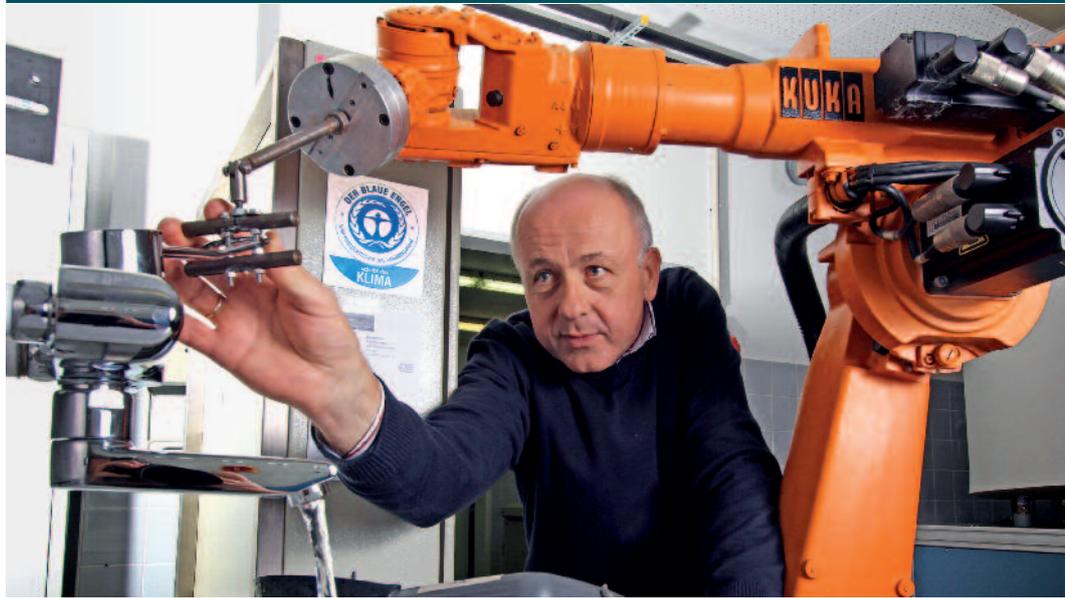
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MPA NRW
Materialprüfungsamt Nordrhein-Westfalen
TESTING - SURVEILLANCE - CERTIFICATION

The newsletter of the Materialprüfungsamt NRW

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His department tests sanitary tapware for the “Blue Angel”: Martin Teschner, certified engineer.

Pellets, seaweed and “Blue Angel”

Climate protection and resource conservation have been a vital subject at the MPA NRW for years. Several departments are active on this behalf.

Since July 2011 the testing laboratory for sanitary tapware has been carrying out the classification for the new WELL-Label. It confirms a low water flow and a water flow-independent temperature setting of sanitary tapware with or without temperature limiter. The label has been designed in such a way that the fittings' properties can be read off easily with regard to energy efficiency. And since May 2011 the “Blue Angel” on hand showers and shower heads certifies that they save energy and water. The MPA NRW as an accredited laboratory can carry out all tests necessary for the issuance of this promotional label. But the MPA NRW also offers other

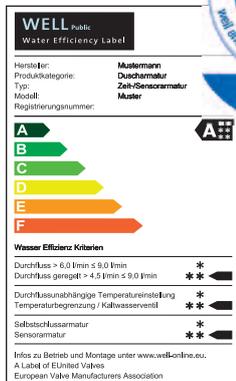
testing services that help more energy-efficient resp. resource-conserving products for daily use, energy supply or the building industry come onto the market.

For example pellets: In 2003 the MPA NRW was one of the first testing laboratories to deal with this at the time new fuel. Today we monitor the manufacturers and can carry

out all analyses necessary for determining the pellet quality.

The MPA NRW also registers an increase of tests with regard to regrowing insulation materials. They are made of waste paper, wood fibres or chips, of hemp, flax or seaweed and must pass all tests that have been prescribed also for conventional materials. These for example comprise the reaction to fire or the setting behaviour.

The offer of resource-conserving products will increase even more in the coming years – also due to the legal provisions. Thus the government of the Land North-Rhine Westphalia initiated a climate protection law this autumn. It intends to reduce the greenhouse gases by at least 25 % until 2025 in comparison to 1990. In order to reach this goal we have to save energy and use resources more sustainably.



Time is Money

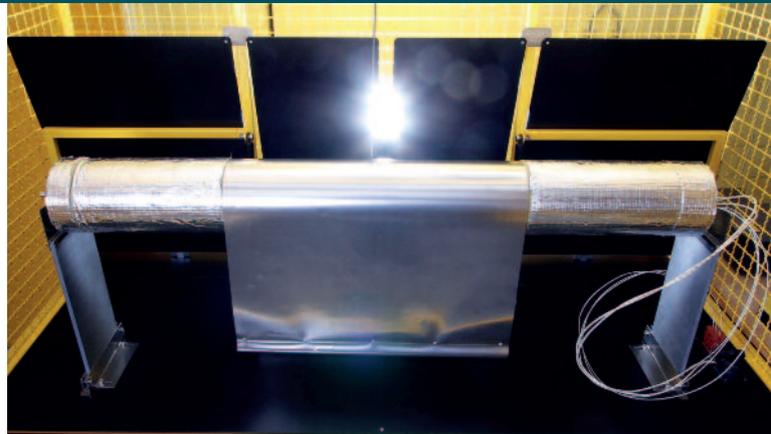
The WELL-Label categorizes sanitary tapware used in private households into four efficiency classes (stars). Tapware used in public buildings can be awarded two stars more, altogether six stars. Here the additional requirement “time” is effective. The water flow must stop automatically or dependent of usage after a certain period of time.

New equipment

■ ■ ■ The MPA NRW tests tubular insulating materials under high temperatures.

Owing to the two new testing facilities in the laboratory for insulating materials the MPA NRW can now also determine the thermal conductivity and the maximum service temperature of tubular insulation materials under temperatures over 80 degrees centigrade. These materials are used for instance in the sphere of technical building equipment for the insulation of heating pipes or for industrial installation. The materials used are among others calcium silicate, cellular glass and phenolic

New test facility for the determination of maximum service temperature of pipe insulating material



foam. Tests can be carried out up to a temperature of 850 degrees centigrade. The MPA NRW is one of two institutes in Germany that offers these tests.

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First hand information

■ ■ ■ In the “Reinforcing Steel Forum” the MPA NRW informs manufacturers and processing companies about the new DIN 488.

The feedback from client forums of the MPA NRW is always positive, thus also from the one having taken place on 17 May 2011: 70 participants of the “Reinforcing Steel Forum” received first-hand information about “DIN 488” from the experts of the MPA NRW – especially for the work’s own product control. The focus was on the changed require-

ments of the new national standard among others to coils and also to reinforcing steel in rings and lattice girders. The standard DIN 488 has been revised, as a Europe-wide regulation was not achieved. A testing laboratory tour was also part of the forum. “Due to the seminar and especially the laboratory tour the participants reached a greater understanding”, says Joerg Becker, graduate engineer. “Particularly because we can carry out tests here that are not possible in the client’s work’s own product control.”

The MPA NRW will oblige to the wish of the participants concerning a new edition of the “Reinforcing Steel Forum”. This is planned for 1 March 2012. This time especially the processing companies of reinforcing steel in rings will be invited.

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Testing reinforcing steel in the testing laboratory of the MPA NRW

■ ■ ■ | New Building Products Act

On 24 April 2011 the Building Products Act (BauPVo) entered into force by publication in the Official Journal of the European Union. It brings important changes for the manufacturers and the other economic participants. Among other things it determines the obligations of all parties involved in the supply and distribution chain. Subsequently, processing companies, importers or traders assume the role of the manufacturer when they bring a product onto the market in their name or their trademark. The consequence: they have to fulfil the obligations of a manufacturer. However, these regulations will be valid only from 1 July 2013 on. Until then building products can still be introduced to the market on the basis of the old Building Products Act.

📧 **Detailed information:**
www.mpanrw.de

■ ■ ■ | SUSTAINABLE

From this issue on Check it! will be printed on “Circle silk Premium White”, a paper that has been manufactured out of 100 per cent recycled paper. It has also been awarded the EU-flower as a sustainable product with a low health burden.



Fast reaction

■ ■ ■ The newly established “Competence Centre Radiation Protection” has already proved its utility for the clients shortly after its opening.

The areas of radiation protection dosimetry, expert bodies and special services of the MPA NRW have bundled their knowhow in a competence centre in order to help their clients even faster and better. After the catastrophe in the Japanese nuclear power station Fukushima this goal stood before its first acid test. “We had many enquiries”, says Dr. Frank Busch, graduated physicist, “for example from companies whose employees had to go on business trips to Japan. They were interested in dosimeters in order to be able to measure the local radiation level directly and independently. In the course of this they came across our offer of digital and analog appliances.”

Prior to this the head of the dosimetry service for personal and environmental dosimetry had already communicated with his colleague Dr. Axel Rox from the department radioactivity measurement which information and services our clients would need after the catastrophe. “We have been bundling our experiences for a long time in order to give a fast and competent reaction to enquiries in the MPA NRW. There are two important things: first: “What does the client need?”, and secondly: “How can we help?”, says Frank Busch.

Analyses directly at the airport

Both experts regard the website of the MPA NRW as especially suitable for introducing the offers of the competence centre to the clients. The “Information Portal Radiation Protection” offers many explanations to all relevant subjects – among others with short

video clips that explain the use of the various

dosimeters and their handling. Already shortly after the nuclear reactor accident a lot of information focussed on Fukushima was put online. This special page gave compact information about the situation of danger and named the authorities and persons of contact in Germany competent for the various questions.

„In the context of Fukushima two offers of the MPA NRW were important: On the one hand our variety of personal and ambient dosimeters for controlling the local external radiation exposure and on the other hand the radioactivity measurement of goods coming from Japan to Germany”, explains Axel Rox. Thus products having arrived at Frankfurt Airport could be controlled against a possible contamination directly on site.

All measuring techniques available

The competence centre helps to make the services of the MPA NRW even more customer-friendly in the sphere of radiation protection. “We can react to all developments on the market and offer a complete range of dose measurement technology for every application”, says Frank Busch. And: “Due to the good coordination in the competence centre and the expert knowledge of the team we can give our clients profound information.”

The competence centre is well-positioned. And still it has its worries: Axel Rox sees a recruitment problem for the future: “It seems that increasingly less people are interested in the com-



After the catastrophe in the nuclear power station Fukushima the Competence Centre Radiation Protection had a lot to do with controlling business parcel consignments from Japan – on the photo Dr. Frank Busch (left) and Dr. Axel Rox.

■ ■ ■ | Dosimeters for every application

The Competence Centre Radiation Protection has revised its film dosimeters and now offers four types that can only be distinguished by their colour.



Information about the complete offer of MPA NRW dosimeters can be obtained under www.mpanrw.de. You can also find video clips



there that show how the most important dosimeters are used. Since the nuclear reactor accident in Fukushima the competence centre has been recording an increasing demand for electronic personal dosimeters (lower photo on the left) which can directly indicate the actual radiation intensity. They can also acoustically warn of increased radiation values.

plex science of radiochemistry and radiation protection.”

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The concrete team, as a rare exception on a building site together: Cong Minh Tran and Tayyar Uysal.

Strict against the attitude of improvising

■ ■ ■ The concrete team fears no clash on a building site for the sake of observing regulations

Concrete is not only grey and becomes hard: "It is the most tested material in Germany after foodstuffs", says Tayyar Uysal, graduate engineer at the MPA NRW, who together with Cong Minh Tran is responsible for concrete tests on building sites (ÜK II and ÜK III) as well as tests of the plant's own production control on the territory of the concrete manufacturers. The concrete experts have a lot to do – the demands to this building material increase with its fields of application for example in structural engineering, bridge construction and road construction. The EU guidelines

are very strict, due to which there are nearly no incidents in these parts. This also owes to the two experts of the MPA NRW. Both understand each other as team, Cong Minh Tran points out: "We may be in charge of different clients, but both of us can take over the tasks of the other, because we regularly inform each other about all projects." Thus the clients don't have to suffer too long waiting periods.

The two concrete experts are seldom in their office. Everywhere where concrete of a certain firmness is being built in on public building sites (C30/37 Newton/mm²) there is the need of supervision that the concrete class named in the delivery note is delivered and used according to the guidelines.

Always well prepared

Besides the concrete composition the test focus is especially on the prescribed integration of the concrete 90 minutes after having left the concrete factory. The experience of both: The sources of error seldom lie in the concrete factory but mostly on the building site. Although the staff has to be trained every two years, it is reality that

the attitude of improvising or of turning a blind eye is strongly developed. For example the transit-truck mixer reaches the building site shortly before lunch break and then the prescribed processing time is very quickly exceeded. This is comprehensible from the human point of view but very dangerous. Because thus the high quality of the concrete can no longer be attained.

The concrete team is professionally highly qualified and always well prepared and can therefore make fast and consequent decisions on building sites. Even if the building site staff is not cooperative, the concrete experts stay firm. Thus they help to secure the quality on building sites.

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■ Edition notice

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■ ■ ■ | Personnel updates

In September 2011, Thomas Buck, graduate engineer, (left side) from the department testing and calibration of testing machines

was appointed VMPA-Testing Engineer. His certificate was handed over by Prof. Dr.-Ing. Reinhard Tscheuschner, the head of the MPA/IfW at the Technical University Darmstadt.

