Important information from wastewater companies: Dispose of toilet paper alternatives correctly – avoid backflow from sewers

What now? Whatever you use instead, don’t flush it down the drain!

The **corona pandemic** is forcing some people to take unusual measures. When supplies of **toilet paper** at home are exhausted and the shelves in the supermarkets are empty, people have to become creative. Then **handkerchiefs**, kitchen towel, non-flushable wet wipes and **baby wipes**, newspapers and, as we hear, even pages from books and old t-shirts are being used.
You can do that if you **don’t flush these things down the toilet** after use, but dispose of them with household waste, say the sewerage companies of the Kommunales Netzwerk Abwasser or Community Network WasteWater. Otherwise there is a **risk of blockages** in the sewer from your house, which can lead to backflow, **sewer flooding** of your house and consequent expensive work to put it right, warn sewage disposal companies.

Toilet paper with a decisive advantage

Real, genuine, **normal toilet paper** starts to break up as soon as it comes into contact with water. It starts in the toilet bowl, continues in the sewage pipe and usually doesn't get to the main sewer in one piece. "We hardly even see toilet paper floating in the larger sewers," say those who work down there and keep our sewage system running.

Toilet paper – everything else is poo

Saves trouble down the pipe: throw wet wipes and other alternatives to toilet paper in the trash can instead of the toilet bowl

All **other papers and cloths** have the property of being tear-resistant even when damp. This is the case because **wet tear resistance** is required for their intended application. However, when placed in the sewage system – even within the pipes in in our own house – this can become very **problematic**. You don't usually notice it right away, after all, the first ones don't immediately block the entire sewage pipe. But over time they settle in bends or on straight sections with little gradient. And at some point **nothing works anymore**.

Save yourself trouble!

The consequences can be quite unpleasant: from **backups** and nuisance odour to **unusable sanitary installations** such as toilets, showers and washbasins and even **flood damage**. It can also really cost you money – if you can even get a tradesman on short notice.

But even if these cloths and papers slip smoothly through your pipes, they can still cause problems at other points in the sewage system. Especially in **pumping stations** the tear-proof cloths can block the pumps. This can lead to **hygiene problems** in an entire district, which must be prevented at all costs. Right now we all have other more important problems.

Dispose of toilet paper alternatives correctly!

Marco Schlüter, head of KomNetABWASSER (ComNetWasteWater): “Only toilet paper belongs in the toilet.”

So: when the toilet paper runs out, you can certainly **use other materials** – they just don’t belong in the toilet afterwards. They belong in a **bin with a lid** next to the toilet. Holidaymakers who visit Greece know this and can confirm it: it works. It can be done. The garbage bag can then

be regularly disposed of in the **residual waste bin** and you and the sewage companies will be helped a lot.
Also inform your neighbours! In a multi-family house you share some sewer pipe and the costs for the plumber are shared by all. You are also welcome to **share this article in the social media**!

Contact person

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New hotline for wastewater companies: +49 (0) 177 2801198
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Municipal network – open to all wastewater companies

The Community Network WasteWater (KomNetABWASSER) is an initiative of currently about 60 wastewater network owners with the aim of jointly implementing the municipal wastewater disposal obligation in a better and more citizen-friendly manner – as cost-effectively as possible and in accordance with the generally accepted rules of technology. The non-profit IKT - Institute for Underground Infrastructure organises and supports the network.

Even during the coronavirus epidemic the network participants are meeting regularly in virtual space. Since there has been a real toilet paper crisis in many places and many people have to find alternatives, the network participants are increasingly discussing problems caused by the incorrect disposal of materials through the toilet. It is repeatedly pointed out that

not only the companies have to eliminate problems caused by wet wipes and other non-flushable products, but that problems often arise on the premises of their customers.

More about the network of wastewater companies on the **KomNetABWASSER website.**

Webinars on Corona Virus and Sewer Operation

KomNet and IKT invited interested sewer network operators to a web meeting. More to follow.

Corona crisis planning – this is the task currently facing all sewer network owners! In view of the current

situation, the Kommunales Netzwerk Abwasser (KomNetABWASSER – Municipal Network Wastewater) and IKT have jointly decided to support all sewer network owners to the best of their ability.
A hotline has been set up and the first of a series of web conferences was held where more than 60 network operators were able to exchange information and network.

Upcoming International Webinar

We will be holding an international webinar in English for sewer network owners on 'Corona virus and sewer operation',

> **on Wednesday 25th March**
> **at 2pm (CET)**
> **login:**
> **https://global.gotomeeting.com/join/497549117**

This will summarise the current guidance and approach to sewer operation in Germany and consider advice provided in other countries. This meeting can be joined from computer, tablet or smartphone.

Organising exchanges

We invited all interested wastewater network operators to a first web telephone conference on last Wednesday to announce the start of the initiative. "We want to exchange views on which organisational measures need to be taken and which tips and ideas are available in the network" says Marco Schlüter, director of the KomNet.

New hotline for network operators

New hotline: KomNet director Marco Schlüter is providing all the support he can in this crisis.

In addition, KomNet has set up a hotline which is available immediately. You can reach us at any time on the number +49 177 2801198. Ask us all your questions or give us tasks on all topics that concern you – even outside of Corona.

Contact persons

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This is KomNetABWASSER

The Kommunales Netzwerk Abwasser (KomNetABWASSER), or Community Network for Wastewater, is an initiative of about 60 German and Dutch wastewater companies. The aim is to jointly implement the obligation for municipal wastewater disposal in a better and more citizen-friendly manner – as cost-effectively as possible and in accordance with the generally recognised rules for the application of technologies. To this end, the Network makes use of IKT's services. This means that not everyone has to reinvent the wheel again and again.

Engine, idea provider, sparring partner
KomNetABWASSER sees itself as an initiator and supporter for the participating municipalities. Current topics, which the municipalities want to address, are scientifically examined and practically inplemented.

Interested? You can find out more about KomNetABWASSER here. (in German only, sorry!)

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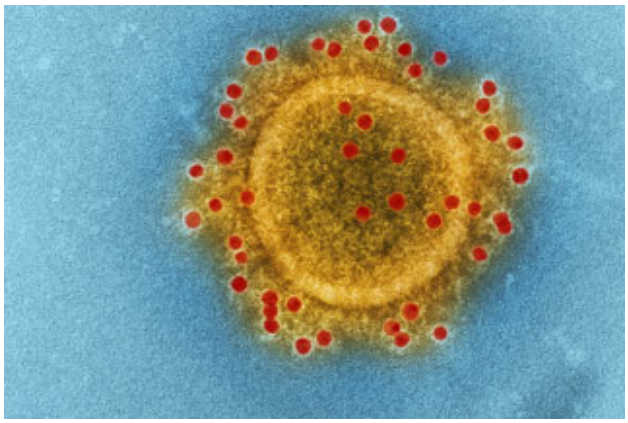
How IKT is Responding to the Coronavirus



IKT’s plan: Being there for customers despite coronavirus

In view of the progressive spread of the coronavirus, IKT has adopted its own preventive plan. The protection of the health and safety of our customers, employees and their families is our highest priority.
For this reason – as far as the activities allow – home working has been provisionally ordered until Easter. All IKT scientists and testing staff will remain fully available to customers and partners via e-mail and mobile phone.

Our regulations at a glance

- **Home working with secure availability via mobile phone and e-mail**

- Testing staff continue to work at the laboratory
- Research and product testing continue
- Long-term trials continue
- KomNetABWASSER continues to support wastewater companies
- Seminars cancelled until 30 April – some courses will be offered online

Testing operations continue

There for you: the IKT test centre for building products

One of the aims is to ensure that the IKT Construction Products Test Centre can continue to operate. There must be no delays on construction sites due to missing test results. “You are welcome to continue to commission us with your tests and send us liner samples”, says Dieter Homann, head of the test centre. “If you have any questions or uncertainties, please feel free to contact us at any time!”

Test centre for flow measurement

The testing laboratory for flow measurement is also

continuing to work so that plant operators can meet the deadlines set by the authorities for the inspection of their plant. “In order to save you inconvenience, we will also come to you in the next few weeks for field work, if you allow us to”, reports test centre manager Marcel Goerke.

Research and product testing

We will also continue our research and product testing activities. In this way, we want to ensure that network operators can benefit from the results as soon as possible. “The long-term tests in the test hall are also continuing”, assures Serdar Ulutaş, Head of IKT-Compare.

Municipal Network for Sewage

Municipal network: Marco Schlüter and his team will support the wastewater companies to the best of their ability.

In the coming weeks, KomNetABWASSER will continue to

support the sewerage network operators to the best of its ability in carrying out their tasks. A strong community is especially important in such uncertain times. “Just now we can help each other in the network of the sewage companies. We are always available for sewage companies. In addition, we are now also setting up an online exchange of experience,” announces network manager Marco Schlüter. He also promises: “Today we have decided to support all wastewater companies – also beyond the KomNet – to the best of our ability in this difficult situation! What exactly this means will be communicated shortly.

Seminars initially cancelled until 30 April

All planned events will be postponed until after 30 April 2020 to prevent the virus from spreading in this way. The affected participants will be informed personally. “All registrations for cancelled events will be postponed free of charge to the next date in autumn,” promises Dr. Sissis Kamarianakis, Head of IKT Further Training, and adds: “Provided, of course, that the situation has calmed down considerably by then. The Training Team is currently working flat out to offer certain content online. The first offers will be available shortly.”

Business trips and external appointments

IKT Managing Director Dipl.-Ök. Roland W. Waniek: "We are aware of our responsibility for the health of our customers and employees.

"Business trips and external appointments are reduced to the absolutely necessary minimum", says managing director Dipl.-Ök. Roland W. Waniek. Whenever possible, telephone conferences and web meetings are offered. In any case, on-site appointments will only be made with the express consent of the customer. If meetings with our employees are absolutely necessary, you can be sure that all necessary hygiene and precautionary measures are taken to avoid endangering your health.

Girls' Day at IKT cancelled

IKT has set up three places for the nationwide Girls' Day 2020, where schoolgirls can get a taste of professions that are still dominated by men, and registrations have already been received for these places. Due to the current situation, this year's Girls' Day has been cancelled. Should there be a catch-up date, our offer to the three girls is of course still open. Apart from that, there will be

opportunities for internships again in the post-corona period – and of course for boys as well.

Accessability

We will be happy to continue to be your contact point for all questions concerning pipeline-related infrastructure and will therefore make every effort to remain as accessible as possible to you even in the crisis. In the event of complications that may nevertheless arise, we ask for your indulgence. The landline numbers of the home office staff are redirected to their business mobile numbers. And of course we can all still be reached by e-mail.

We will continue to monitor developments closely and will inform you in good time of any changes in plans and how things will continue in IKT after Easter.

Stay up to date with IKT

Marcel Goerke (l.) and Marco Schlüter keeping clients informed about coronavirus in a

webmeeting.

IKT recently discussed the consequences of the coronavirus epidemic for wastewater disposal with the members of the KomNetABWASSER (Municipal Wastewater Network) in a working session. Read more here.
Members of IKT's associations were also informed in a web meeting about the current status of operations and occupational health and safety.

And we have compiled a list of links with further information about Coronavirus in sewers from various countries, which is constantly updated.

We thank you for your loyalty, trust and patience (which we hope not to overstretch). We believe that we are well prepared for the coming weeks and will continue to do everything we can to maintain our usual service even in these difficult times.

Keep abreast of developments!
Subscribe to the IKT Newsletter now!

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Coronavirus in Sewers? Don’t Panic! But be Careful.

Current topic: Employees of wastewater companies discussed necessary protective measures in connection with the coronavirus epidemic at IKT.

The new coronavirus SARS-CoV-2 and the disease it causes (COVID-19) is keeping everyone busy right now. Politicians are advising on measures, companies worry about their supply chains, and wherever cases of infection are reported, people are emptying supermarkets in fear of being confined to home for months.

Sewer network operators and service providers are also worried. They are rightly wondering whether infected people excrete the virus and whether it is then found

in sewage? Can people be infected by wastewater? How can their staff and their relatives be best protected?

It is well known that pathogens can spread via human excrement and wastewater. After all, that is why there is a sewerage system. Prominent examples include hepatitis viruses, noroviruses and salmonella. So, there is basically no reason to panic. Representatives of sewage network operators agreed on this at a recent meeting of the Kommunales Netzwerk Abwasser (KomNetABWASSER – Municipal Network Wastewater) working group on "Sewer Operation", held the at IKT - Institute for Underground Infrastructure in Gelsenkirchen, Germany.

Municipalities provide ad hoc advice in KomNetABWASSER

Marco Schlüter advises staff in sewer operations to exercise particular care and caution.

The KomNetABWASSER was asked by wastewater companies to what extent it is still possible to deploy employees

for cleaning work in underground chambers, in the sewer network and at wastewater treatment plant. IKT's Marco Schlüter, head of KomNetABWASSER, made this the first topic on the agenda of the working group meeting, and summarised the discussion among the 30 sewer operation managers present as follows: "The Federal Minister of Health has determined the outbreak of the epidemic in Germany. In this situation it is particularly important for public health that the sewerage system continues to function reliably. The prerequisite for this is healthy operating personnel. The sewage companies agreed that three points must be observed in the current situation: Firstly, special care must be taken with occupational health and safety, secondly unnecessary risks should be avoided at present and thirdly, of course, the usual hygiene recommendations must be consistently observed".

Analysing risks

The Robert Koch Institute (RKI), which is responsible for risk assessment of infectious diseases in Germany, currently continues to assume that the risk to the German population is low to moderate. But, sewer workers are exposed to a potentially infectious medium, as the experts present at the meeting know. Their risk is therefore probably higher than that of the average population. And they return to their families after work, meet friends, chat with colleagues in the corridor. And they in turn…

Systems must operate!

Prof. Bert Bosseler: “The plants have to be running, otherwise we will have quite different hygiene problems.

However, not all employees with wastewater contact can simply be sent home for an indefinite period of time. Prof. Bert Bosseler, Scientific Director of IKT, pointed out that wastewater companies are responsible for ensuring the performance of wastewater disposal infrastructure. Although the health of employees and their families is at stake, the protection of the population is also at stake. “The plants have to be running, otherwise we’ll get completely different hygiene problems,” said Prof. Bosseler.

Protective equipment – follow the textbook 100%

The unanimous view of those present was: do not panic! It is important to inform and encourage employees to pay attention to their own behavior, to refresh their knowledge of occupational safety, to suspend work that is not immediately necessary and – very importantly – to carry out the required protective measures 100 percent according to the textbook.

Marcel Goerke: “Always wear the prescribed protective gear!”

“This means: Always wear the prescribed protective clothing, never eat, drink or smoke in the work area, wash your hands frequently and disinfect, and strictly observe the relevant regulations such as TRBA 220 and DGUV 103-003,” said Marcel Goerke, research assistant and expert for occupational safety at IKT, when explaining the recommended measures and rules of conduct to the meeting.

Stop sewer cleaning?

The relevant Employer’s Liability Insurance Association (BG ETEM), in Germany, stated in response to an enquiry: For work that generates aerosols, the risk assessment of the specific activity could show that it is better to postpone the work if it is not absolutely necessary. This would mean stopping sewer cleaning for the time being. The representatives of the sewage companies present did not see this as a major problem as a temporary measure. However, cleaning of pumps and buildings cannot be suspended, said the network operators. This could lead to contact with contaminated wastewater. It is therefore all the more important to

adhere strictly to the regulations on occupational safety.

Equipment shortages?

The question remained open as to what would happen if the safeguarding measures could no longer be implemented due to supply shortages. After all, most products come from China and nobody knows how the supply situation for important products will develop in the coming weeks. Protective suits of protection class 3 are still available, according to the participants, but longer delivery times must already be expected for FFP3 breathing masks.

3 principles

The participants agreed on three principles:

- **Care in occupational safety!**
- **Avoid unnecessary risks!**
- **Consistently observe the usual hygiene recommendations!**

Otherwise: Do not panic! But be careful.

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What is KomNetABWASSER?

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Many of the findings from the network work are incorporated into IKT's training courses. Current examples are the 'Sewer Operations Management' course, the annual 'SewerCleaningCongress – KRC 2020' and the 'Demand-oriented Sewer Cleaning' workshops.
range of IKT's professional trainings

Interested? You can find out more about KomNetABWASSER here. (in German only, sorry!)

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2019 IKT LinerReport: Seven Percent of Sewer Liner Samples do not Pass all Tests

Three-point bending test: mechanical testing of modulus of elasticity and flexural strength

In 2019, 93% of the sewer liner samples (CIPP) submitted for inclusion in the IKT LinerReport achieved all the required material characteristics. But, seven percent of samples failed at least one of the four

tests. So there remains a residual risk.
The 16th Edition of IKT's annual LinerReport summarises the test results from a total of 2,353 sewer pipe liner samples examined by the institute's test centre during 2019. The IKT-LinerReport has an international scope, with rehabilitation companies from seven countries participating.

The samples submitted are evaluated against four short term tests. Pass/fail for each individual sample is determined by comparing the test result with the expected value for the installed liner, which is either the manufacturer's declared value for the product or the value required by the client's specification.

Download the 2019 LinerReport here

2019 test results

Tight or not? Water tightness test in the IKT laboratory

In 2019, most of the sewer liner samples test results remained at a very high level, compared with recent years, if the four test criteria are considered

individually. For the modulus of elasticity and flexural strength tests, average pass rates improved slightly compared to the previous year: by +0.4 percentage points (pp) to 97.9% and by +0.8 pp to 98.2% respectively. The average value for water tightness is almost at the same level as in 2018: dropping slightly by -0.3 pp to 98.6%. Whilst, for wall thickness the results improved by +3.4 pp to 97.5%.
read more about these four tests

Liners that passed all four test criteria

However, if it is assumed to be self-evident that a professionally installed sewer liner must meet its target values for all four test criteria, a poorer picture of sewer liner quality emerges. It is apparent that in 2019 only 93% of the samples, tested against all four criteria, passed all four test criteria at the same time. Some seven percent of the installed sewer liners did not do this and thus do not meet all requirements and specifications. In other words, one in fourteen liners does not meet all test criteria and fails at least one criterion.

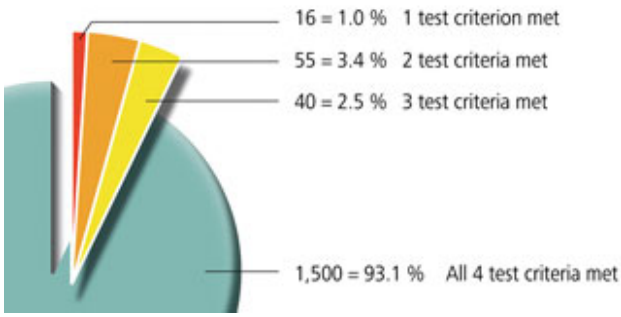


Diagram 1 (Click on chart to enlarge)

Diagram 1 shows that of the 1,611 samples (two thirds of all samples) for which all four nominal values are available:

- **93.1% pass all four test criteria,**
- **2.5% pass only three test criteria,**
- **3.4% pass only two test criteria, and**
- **1.0% pass only one test criterion.**

For one third of the samples (742) the target value for at least one test criterion was not provided, or part of the testing programme was not commissioned.

Positive picture put into perspective

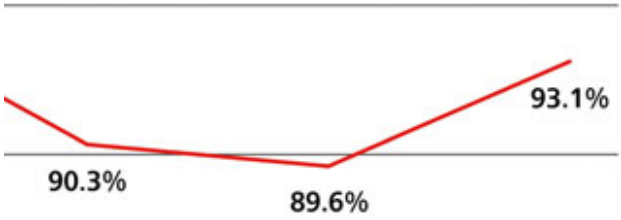
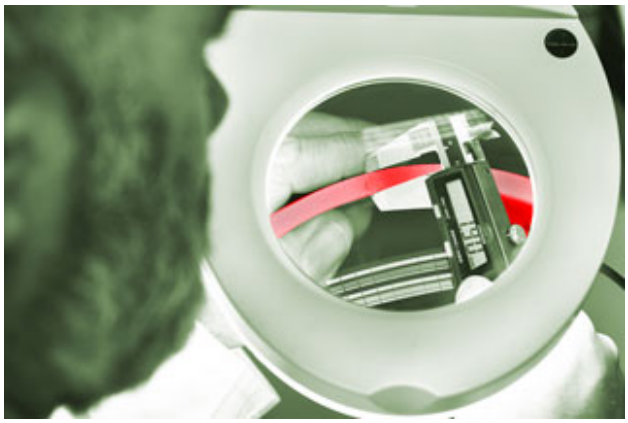


Diagram 2 (Click on diagram to enlarge)

This puts into perspective the very positive picture apparent at first glance, since seven percent of the liners do not achieve the required material characteristics across all four test criteria. In the previous two years, the situation was weaker: then only 90% passed all tests and so one in ten liners did not meet all the requirements (see Diagram 2). This is a not inconsiderable rate for a rehabilitation procedure that claims to be the standard procedure for the rehabilitation of sewage pipes.

A notable improvement in wall thickness



Wall thickness measurement: requires particularly high precision

The improvement in the wall thickness results is remarkable: this test was passed by 97.5% of all samples tested, which is 3.4 percentage points (pp) more than in the previous year. Without exception, all samples made of needle felt carrier material (NF) have passed this test. NF liner performance improved by +2.6 pp to 100%. Liners made of glass fibre reinforced plastics (GRP) increased by +4.2 pp, with an average result of 97.2% passing, but remaining almost 3 pp below the NF result.

In the last three years there has been an intensive technical discussion about the wall thickness of sewer liners. Advocates of higher minimum thickness requirements were opposed by those who believe that wall thicknesses of three millimetres and less can also be tolerated. The test results of the IKT LinerReport 2019 show that rehabilitation companies have successfully made efforts to comply with required wall thicknesses. This should have a positive effect in

ensuring the long term performance of installed sewer liners.

The 100% Club

The 100% Club: companies who passed all tests in all criteria with all samples (Click on table to enlarge)

In 2019, once again, some rehabilitation companies managed to pass all four test criteria with all their sewer liner samples 100%. This year it is 3 of the 23 rehabilitation companies in the survey that fully meet the quality requirements. In the previous year there were five out of 25 companies that achieved 100%.
The companies in the “100% Club” of 2019 are:

- Hamers Leidingtechniek (NL) with Alphaliner
- Jeschke Umwelttechnik (D) with Alphaliner
- Kanaltechnik Agricola (D) with Brandenburger Liner

Diagram 3 shows the years in which these companies previously got a “100% Club” membership, highlighting their recent performance.

Conclusions: better results but still room for improvement

2019 was predominantly a good year for sewer liner quality, not only in Germany, but also in a number of European countries participating in this report. It is encouraging that, on average, better or equally good results were achieved compared with the previous year for almost all test criteria.

However, it cannot be overlooked that only very few rehabilitation companies manage to provide a very high performance throughout. These are the three companies in the "100% Club" that have passed all four test criteria for each of their samples. With a total of 23 rehabilitation companies whose sewer liner samples are included in the 2019 IKT LinerReport, there is undoubtedly still some room for improvement in quality.

Database for the 2019 IKT LinerReport

- **Number of liner samples: 2.353**
- **of which: 2,072 were GRP liners and 281 needle felt liners**
- **Number of sewer liner systems included: 7**
- **Number of sewer rehabilitation companies: 23**
- **Minimum quantity of samples required: 25 liner samples of one type from five different construction sites per rehabilitation company**
- **Sample suppliers: 69% sewer network owners and 31% sewer rehabilitation companies**
- **Countries of origin: Belgium, Czech Republic, France, Germany, Great Britain, The Netherlands**

and Switzerland

The same applies to the proportion of sewer liner samples that meet all four test criteria at the same time. At 93%, this is not so impressive because it means that every 14th liner does not fully meet the quality requirements.

However, the four test criteria with their target values are there for a good reason: only if all four are fulfilled can clients assume that they have received a professionally installed liner, with good prospects of a long service life in the sewer. The rehabilitation companies as well as the liner producers have to make the same demands on themselves. Because only in combination can they achieve high sewer liner quality at installation sites and thus permanently consolidate the position of the sewer liner as the leading sewer rehabilitation method.

And in the future, in their own interest, clients should pay more attention to ensuring that they state the required target values for all four test criteria in their sample submission forms. So far, this is only the case in two thirds of the samples, with one third lacking information on the target values for some tests. It is therefore not possible to fully assess the performance of all the samples submitted for the IKT LinerReport.

Download the 2019 LinerReport here

View all IKT-LinerReports

IKT Test Centre for CIPP liners

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Lining of Pressure Sewers: Evaluating One of the New Frontiers of Trenchless Technology

IKT Compare: testing lining systems for the trenchless rehabilitation of pressure sewers

Our latest IKT Compare technology evaluation is examining the performance of lining systems for the trenchless rehabilitation of pressure sewers. The aim is to support sewer network operators in the selection of suitable systems and to provide them with certainty when developing tender documents, overseeing installation, accepting the work, and monitoring quality. There is still the opportunity for sewer network owners from other countries to join a partner project to contribute to and benefit from this research.

The issues with pressure sewers

For the past couple of decades sewer network owners and suppliers of liner technologies have been focused on addressing the rehabilitation of gravity sewers. For pressure sewers the focus has been on dig down and

repair or excavate and replace. Pressure sewers are made from a range of materials, many are approaching the end of their service life or developing faults and there is an increasing requirement for rehabilitation, repair or replacement.

Trenchless rehabilitation techniques are usually the solution of choice for repairing damaged sewers, as they minimise disruption in the road and have economic and environmental advantages over open cut methods. However, sewer network operators cite a range of difficult issues for pressure sewers that limit the application and performance of trenchless solutions, such as lack of access points (for inspection or repair), bends up to 90°, unknown pipe layouts, and small nominal diameters in some cases.

Although the first rehabilitation techniques for sewage pressure pipes are now being offered on the market, sewer network owners have realised there is a considerable need to investigate their applicability and limitations. On the one hand, there is a lack of neutral and independent information on installation requirements, application range, performance and application limits of the available processes and products. On the other hand, there is currently very little experience to draw on when considering rehabilitation measures for pressure sewers.

Investigation the applicability and limitations of the first rehabilitation techniques for pressure sewer pipes

For the planning process there is a particular need to understand how to select remediation techniques tailored to the specific application, and for the installation there are issues of implementing quality assurance and for flood protection during installation.

Achieving the objectives

The objective will be achieved through comparative evaluation of the techniques available in the market. Working with the project steering group of sewer network operators, the typical damage scenarios encountered with pressure sewer pipes are being defined and a testing concept developed.

What is available?

A market review of available technologies, products and suppliers is being undertaken and, from this, the project steering group will be selecting eight products for evaluation that are representative of the available

technologies. This review is also considering the current status of applicable standards and regulations.

Evaluation

1:1 scale laboratory testing is being devised that will result in test rigs being installed in IKT's large-scale test facility comprising pumped pressure pipes in which typical damage scenarios have been created.

The selected rehab products will be installed and tested under identical conditions which will include assessing their ability to withstand the typical pressure changes experienced in live pressure sewers. To support the laboratory evaluation, in-situ evaluation will be undertaken on the same techniques installed in sewer pressure pipes at the network operators' sites. In addition to their performance the quality assurance provisions for the products will be evaluated.

IKT Compare tests

On-site installation conditions simulated in

IKT’s large-scale test facility – here with manholes to test and compare rehabilitation methods

IKT’s comparative product testing projects test products and methods to the limit under laboratory and practical conditions. Every product test is supported by a group of network operators. The members of these groups – referred to as “steering committees” – benefit directly from insights into the testing and methodological procedures and from technical exchange with other network operators.
Test subject matter, procedures and criteria are defined by the respective steering committee. Decisions concerning the final evaluations are also taken jointly by the network operators in these supervisory bodies. This ensures that the tests are performed on a strong practical basis, impartially, and without any influence from commercial interests.

The aim
The results provide the network operators with well-founded, dependable information on the strengths and weaknesses of the products and procedures available on the market. This then enables them to base their purchasing decisions on solid facts, rather than solely on the manufacturers’ advertising. IKT’s product tests at the same time provide the various suppliers with indications for the improvement of the products and procedures tested, and thus also for the strengthening of their market position. Ultimately, these are all benefits for the entire industry.

Find out more:

IKT Compare

IKT Compare project results

IKT has done research on inspection and condition-surveying of pressure sewer lines. Now the focus is on rehabilitation.

Whilst, for practical reasons, the 1:1 scale testing will be undertaken on pipes between DN100 and DN400, the project will also be assessing in the field the rehabilitation of pressure pipes