DIBt approvals

DIBt approvals

IKT is a DIBt-accredited test centre for building products

IKT is a test, supervisory and certification centre recognised by the **German Institute for Construction Technology (DIBt)** in Berlin. For customers, this assures an extremely high level of technical expertise combined with IKT's strict **independence** and **impartiality**.
Thanks to its far-reaching technical competence, IKT is approved by DIBt for the performance of technical approval testing on newly developed concrete, vitrified clay, plastic and special-material products (in conformity to Article 28 of the Building Regulations of the German State of North-Rhine Westphalia).

Testing in accordance with the DIBt program

High-pressure jetting and flushing resistance test (DIN 19523)

Among other testing activities, IKT's test centre performs testing of the following product types in accordance with DIBt test programs:

- CIPP liners
- Building liners inside buildings
- Industrial CIPP liners
- Top hat sections
- Internal pipe sleeves and liner end sleeves
- Manhole connections
- Manhole refurbishing
- Grouting and injection grouting
- Short-liners
- Cubic storage elements – plastic blind drains
- Plastic internal linings for buried waste-water lines and manholes

Test procedures for DIBt approvals

The IKT test body applies a whole series of special test procedures which make it possible to quantify the suitability of processes and methods for national technical approval.
Other Quality Assurance tests and advisory services are available on request!

Testing of a material's

behaviour under exposure to liquid chemicals

Testing of a material’s behaviour under exposure to liquid chemicals to European Standards
DIN EN ISO 175

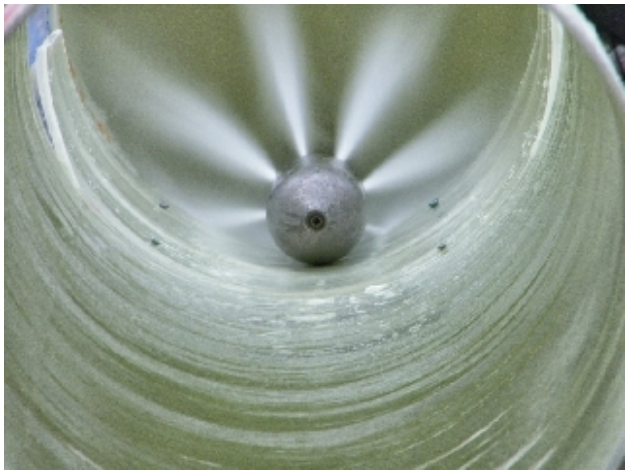
- Plastics installed in waste-water pipes must withstand aggressive fluids
- Test samples are exposed to fluids for 28, 90 or 180 days
- Tensile strength, elongation at rupture and impact strength are then measured

Long-term ring stiffness up to 10,000 h

Long-term ring stiffness up to 10,000 h
DIN EN 761

- Plastic pipes and CIPP liners undergo long-term exposure to (for example) groundwater and soil loads.
- The deformation of a CIPP liner or plastic pipe under constant load becomes ever greater as time progresses. This phenomenon is referred to as “creep behaviour”.

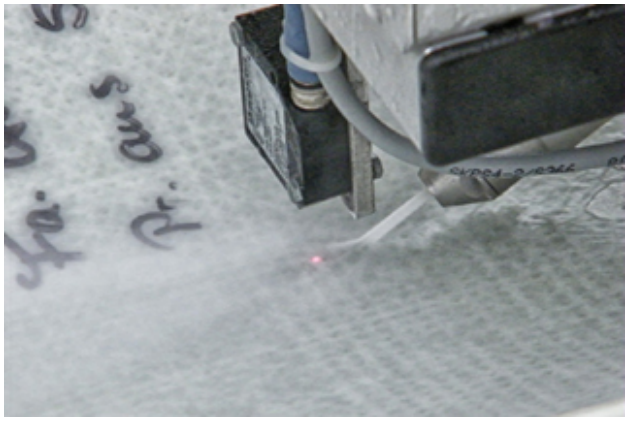
- Creep behaviour is taken into account in structural-analysis calculation by using the long-term characteristics data (50 years) for the modulus of elasticity.
- This long-term modulus of elasticity is determined by means of extrapolation from the results of the 10,000 h test.
- Test: Application of a constant load and measurement of pipe deformation across time (up to 10,000 h); extrapolation to 50 years.



High-pressure jetting and flushing resistance (DIN 19523) – Practical test

High-pressure jetting and flushing resistance
DIN 19523

- Waste-water pipes and CIPP liners are exposed during service to loads caused by internal cleaning operations.
- High-pressure jetting resistance is evaluated in a special test length in a practical test in conformity to DIN 19523.
- Sixty flushing cycles are performed under precisely specified test parameters.
- Pressure and volumetric flow at the flushing nozzle are repeatably set and monitored using ultra-modern measuring systems.



High-pressure jetting and flushing resistance (DIN 19523) – Materials test

- High-pressure jetting resistance is evaluated in a special test apparatus in a materials test in accordance with DIN 19523 using a single high-pressure jet.
- The test nozzle is passed along the material (e.g. CIPP liners, pipes, coatings, linings) at a constant precise distance and at a defined speed.
- Damage to the material is analysed and documented with great accuracy.

Tensile adhesion and pull-off tests

Tensile adhesion and pull-off tests

- Tensile adhesion is a measure of how well a material adheres to a substrate.
- Materials that can be tested include:
  – Coating materials in manholes
  – Short-liners in waste-water pipes
- Procedures are undertaken in accordance with the German Reinforced Concrete Committee repair code or the Europen Standard DIN EN ISO 4624.

Abrasion resistance (Darmstadt tipping apparatus)
European Standard DIN EN 295, Part 3
The transportation of sediment in waste-water pipes and CIPP liners causes material abrasion of the pipe floor. The resistance of a material can be testing using the following procedure:

- A pipe or CIPP-liner half-shell is filled with a mixture of water and gravel.
- The half-shell is subjected to a telting motion which causes the mixture to move in the test object and cause abrasion.

- The tilting motion of the half-shell causes the mixture to move in the test object and cause abrasion of it.
- After 100,000 tilting movements (cycles), the material loss is measured extremely precisely across the length of the test object and the loss of material recorded.

Contact

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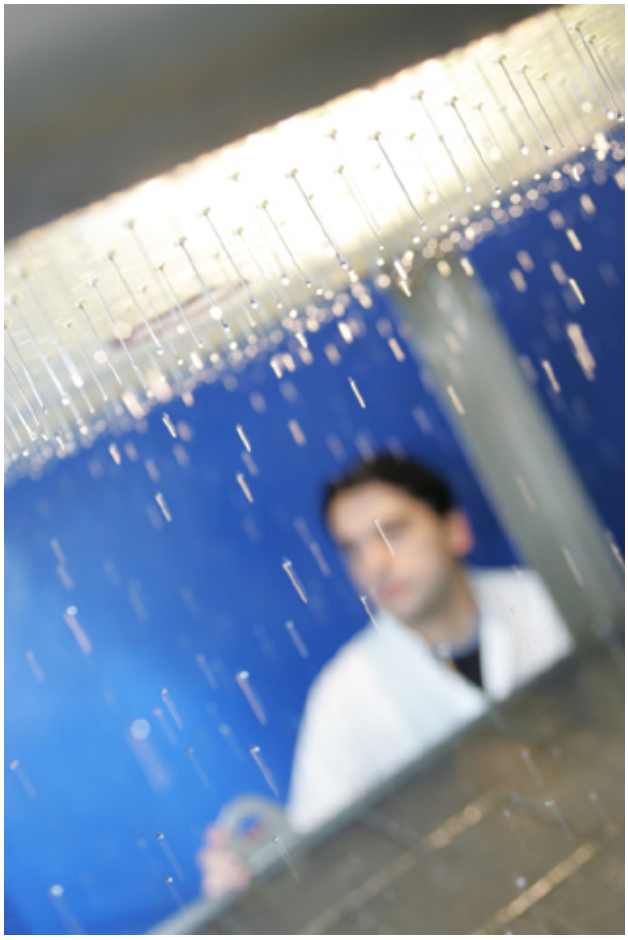
Waste-water treatment surfacings



Testing water-permeable surface coatings

Tests for DIBt approval of waste-water-treatment surfacings are performed by the IKT Rainwater Treatment test centre.
Decentralised provisions for management of precipitation water are gaining in importance. The capture of pollutants is a top priority here.
The IKT Rainwater Treatment test centre provides a series of test services for treatment plants and surfacings.

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