



Infiltration,

Retention and Reuse

The ACO Stormbrixx family





Where surface water management and water protection begins



Collect and hold

- Drainage channels
- Road and yard drains
- Gully tops
- Manhole covers

Achieving the right water quality



Preliminary treatment and treatment

- Separators
- Sedimentation systems and filter systems

Reducing surface runoff to a natural level



Keep out and retain

- Emergency systems
- Block infiltration drains for seepage and retention
- Surface water retention basins

Control discharge rate to the required level



Pump, discharge and reuse

- Flow control systems
- Pump stations



The **ACO WaterCycle** creates drainage solutions for the environmental conditions of tomorrow

Sustainable Rainwater management is our responsibility for the future

Heavy rainfall events caused by climate change: a challenge for all of humanity. Climate change sets us a challenge to react effectively with innovative solutions to new environmental conditions. With its integrated approach, ACO provides systems for professional surface water drainage, efficient cleaning, and the controlled discharge or reuse of water.

Back into the natural water cycle

The Hydrological Cycle is the natural cycle of water from rainfall to evaporation. The ACO System Chain provides products that collect water from impervious surfaces,

which is transmitted to products which help clean solids and liquids from this collected surface water. “Hold” and “Release” require systems that can hold and return this water back to nature in a controlled manner, which can be used in conjunction with water reuse programs.

Combined with ACO surface drainage systems, ACO treatment products and ACO flow control systems the ACO Stormbrixx product family offers a flexible, reliable and sustainable system for the detention, retention, reuse and infiltration of stormwater.

Commitment to quality and sustainability

International ISO management system standards and their certification support the continuous sustainability activities at all key ACO sites in operation, service and culture.

Currently the certified management systems are:

- ISO 9001:2015, Quality Management System
- ISO 14001:2015, Environmental Management System
- ISO 50001:2018, Energy Management System

The certifications are maintained by the process of continuous improvement through real sustainability projects and the promotion of the ecological awareness and activities of all employees.

Key areas of action in this context are product quality, continuous reduction of ACO's environmental footprint as well as continual process resource reduction by digitization and integration.

ACO geocellular stormwater management system

For infiltration, retention and reuse of rain water

ACO Stormbrixx

Groundwater infiltration, retention and controlled release of rainwater are central issues of rainwater management. The ACO Stormbrixx is a unique and patented plastic geocellular stormwater management system.

Equipped with smart components ACO Stormbrixx offers a wide range of possibilities for a controlled rainwater management system.

The Stormbrixx system consists of Stormbrixx SD (Standard Duty) and Stormbrixx HD (Heavy Duty) modular in different sizes.

- Extraordinary stability incl. brick bonding
- Over 10 years experience in projects worldwide
- Certified performance with beyond the standards high frequency series production testing
- High void ratios which minimizes excavation volume
- Low carbon footprint due to recyclable material and logistical benefits
- Remote and man access for ease of maintenance





Standard Duty:

ACO Stormbrixx SD 900

Areas of use:

Frost-free installation, at least 80 cm deep DIN 1054, without ground water influence:

- BK0.3 access roads (in accordance with RStO12) with special vehicles crossing (SLW30)
- Car parking and driving surfaces
- Pedestrian areas, cycle paths, footpaths and terrace areas
- Green spaces without traffic pollution

Layers	Covering*		Installation depth
	minimal [mm]	maximum [mm]	maximum [mm]
0,5	800	2000	2480
1	800	2000	2914
1,5	800	2000	3390
2	800	2000	3828

*Please note the required road construction in accordance with RStO

ACO product advantages

- approx. 50% higher, making it ideal for the construction of large-volume systems, as well as for the exclusive use of infiltration from the side.



Stormbrixx SD

Deutsches Institut für Bautechnik

DIBt

DIBt approval applied for (AZ III 55-1.42.1 -21/19)



H = 914 mm
(2 basic elements
= 1 layer)



Heavy Duty:

Stormbrixx HD 600

Areas of use:

Frost-free installation, at least 80 cm deep DIN 1054, without ground water influence:

- Traffic routes up to load class BK3.2 in accordance with RStO12
- BK0.3 access roads (according to RStO12) with special vehicles crossing (SLW60)
- HGV parking and driving surfaces
- Car parking and driving surfaces

Layers	Car traffic capable			HGV traffic capable		
	Covering*		Installation depth	Covering*		Installation depth
	minimum	maximum	maximum	minimum	maximum	maximum
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
0.5	800	3400	3730	1000	3400	3730
1	800	3400	4010	1000	3400	4010
1.5	800	3400	4340	1000	3400	4340
2	800	3400	4620	1000	3400	4620
2.5	800	3400	4950	1000	3400	4950
3	800	3400	5230	1000	3400	5230

*Please note the required road construction in accordance with RStO

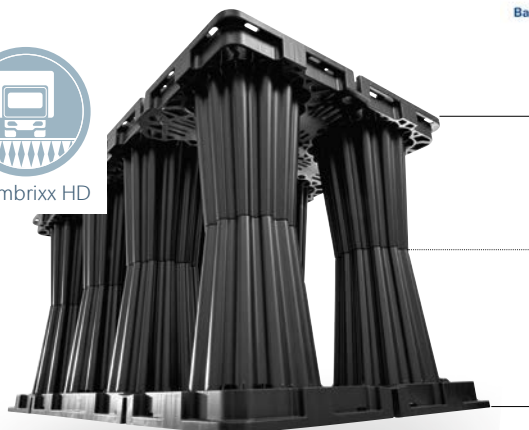
Deutsches Institut für Bautechnik
DIBt
DIBt (Z-42.1-500)

ACO product advantages

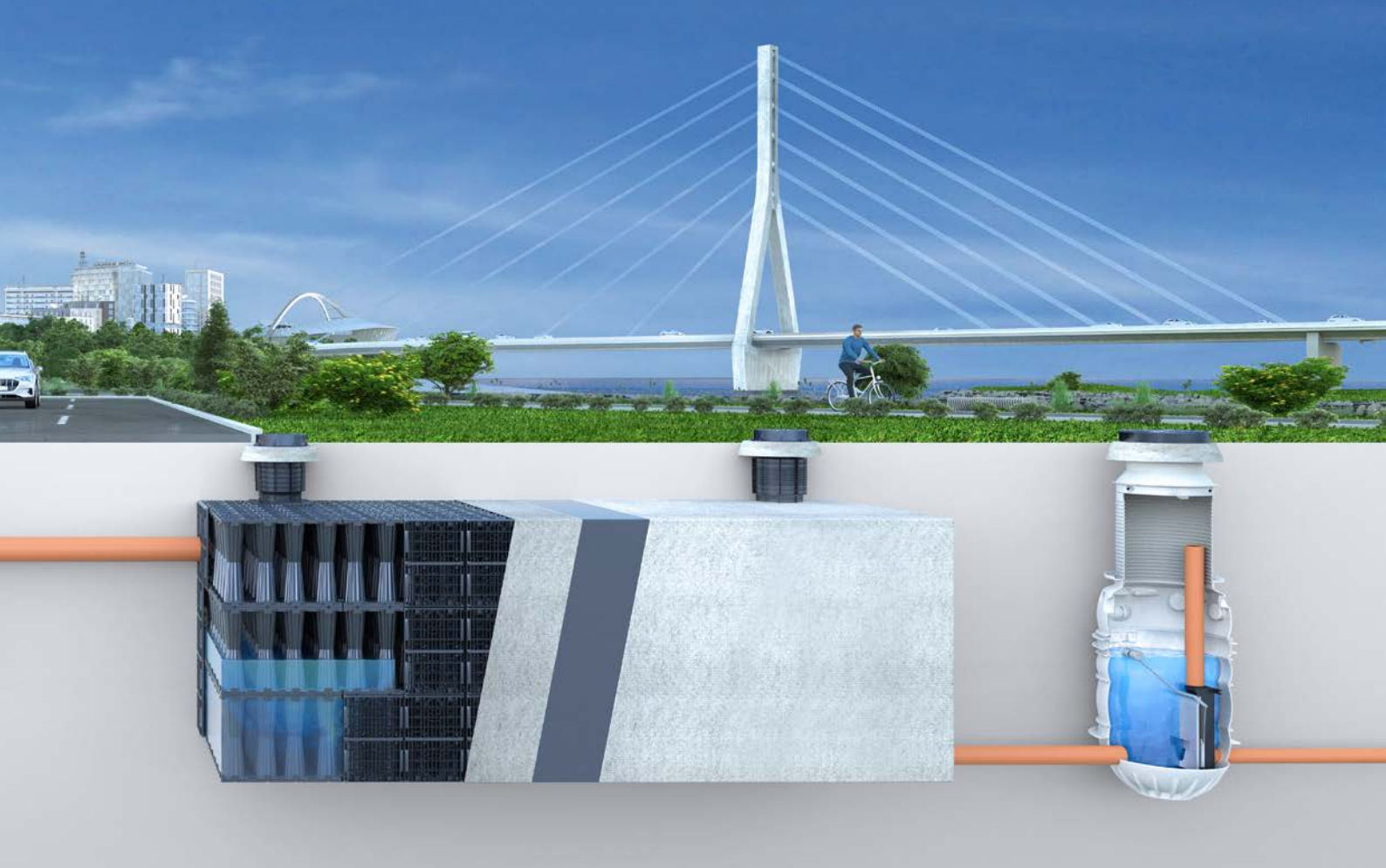
- DIBt approval Z -42.1-500
- Installation close to the surface possible due to low installation height of only 330 mm
- Flexible system design due to modular construction and varying heights



Stormbrixx HD



H = 610 mm
(2 basic elements = 1 layer)



Heavy Duty:

ACO Stormbrixx **HD** 900

Areas of use:

Frost-free installation, at least 80 cm deep DIN 1054, without ground water influence:

- HGV parking and driving surfaces
- BK0.3 access roads (according to RStO12) with special vehicles crossing (SLW60)
- Car parking and driving surfaces
- Pedestrian areas, cycle paths, foot-paths and terrace areas

Installation details

Layers	Covering*		Installation depth
	minimum	maximum	maximum
	[mm]	[mm]	[mm]
0.5	800	4200	4676
1	800	4200	5224
1.5	800	4200	5590
2	800	4200	6028
2.5	800	3724	6028
3	800	3286	6028

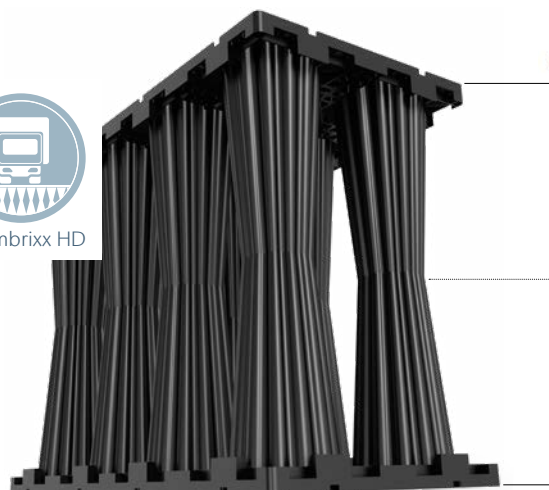
*Please note the required road construction in accordance with RStO

ACO product advantages

- approx. 50% higher, making it ideal for the construction of large-volume systems, as well as for the exclusive use of infiltration from the side.
- Quick laying thanks to 324 litre volume per block
- Very large installation depths are possible
- Excellent price-performance ratio



Stormbrixx HD



Deutsches Institut für Bautechnik
DIBt
DIBt applied for (Z-42.1-500)

H = 914 mm
(2 basic elements = 1 layer)



Tested and certified

ACO Stormbrixx series production testing for each production and material batch including third party control with full traceability.

According to and beyond highest standards

Long term performance is the most important factor.

In order to give our customers confidence for every project, it is essential for ACO to maintain quality control throughout the complete manufacturing process.

ACO is performing testing of Stormbrixx on a different level to secure the high ACO quality standard:

- Full scale testing of the final manufactured product
- Component testing of individual parts
- Coupon testing of materials

Full scale quality testing of the final Stormbrixx is validated in both directions -vertical and horizontal planes.

Stormbrixx is tested for every production day, for every material production batch and for all production sites globally with full traceability to every project.

Product quality beyond international standards

Stormbrixx is tested for creep with more than 10,000 h, as well as for creep rupture according to EN17151 campaigns, resulting in certification to the highest international standards*, such as DIBt, BBA and CSTB.

Additional Stormbrixx is tested as a modular system beyond standards or guidelines like EN17152 or Ciria737.

ACO quality control is supervised by a certified external third party*

* may vary for different article numbers



Certification for structural integrity

National certification bodies certify products for the needs of the local markets. Based on practical experience and technical demands local standards are accepted for various applications across national borders.



- The Deutsches Institut für Bautechnik (DIBt) plays a pivotal role in the construction industry: with its approvals and assessments, it ensures the safety of construction works while fostering the development of innovative construction products and techniques. DIBt is a technical authority and a service provider for the construction sector.
- DIBt issued a general building approval for ACO Stormbrixx HD and SD.



- The British Board of Agrément (BBA) provides services that help us to create accountability and mitigate risk. Through extensive research, auditing, inspection, testing and certification, BBA supports ACO's commitment for high quality and safety in the construction sector.
- BBA issued a technical approval for ACO Stormbrixx HD.



The ACO Stormbrixx system consists of a single recyclable polypropylene body that can be assembled in a variety of ways to form an open bonded structure. **The stackable design reduces transportation costs and improves the carbon footprint of the product**

Material testing before processing

A contribution to durability

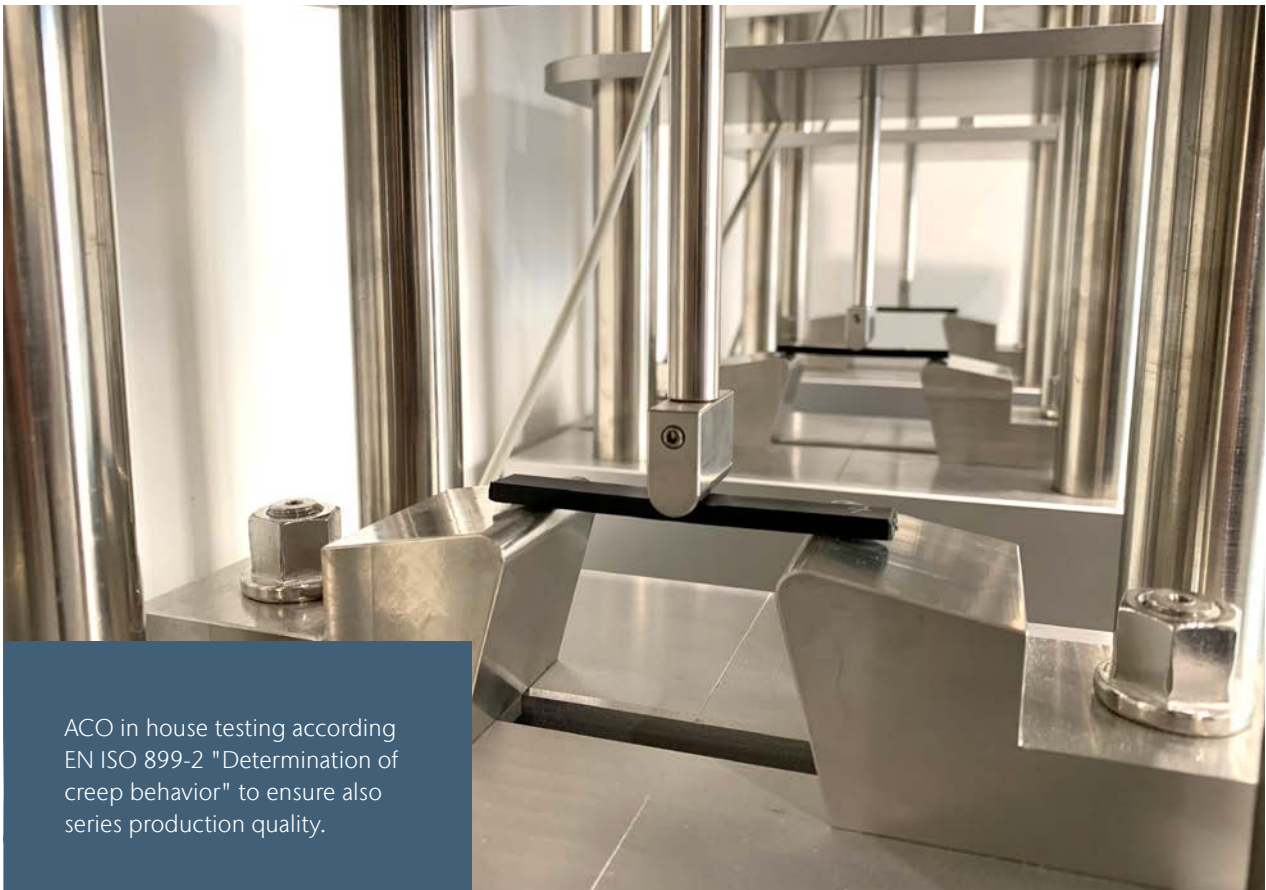
To ensure the high ACO standard in serial production internal checks are carried out during production in addition to the standard tests by our ISO 9001-certified suppliers.

For this purpose, the material parameters are checked and documented for each batch of material processed in production.

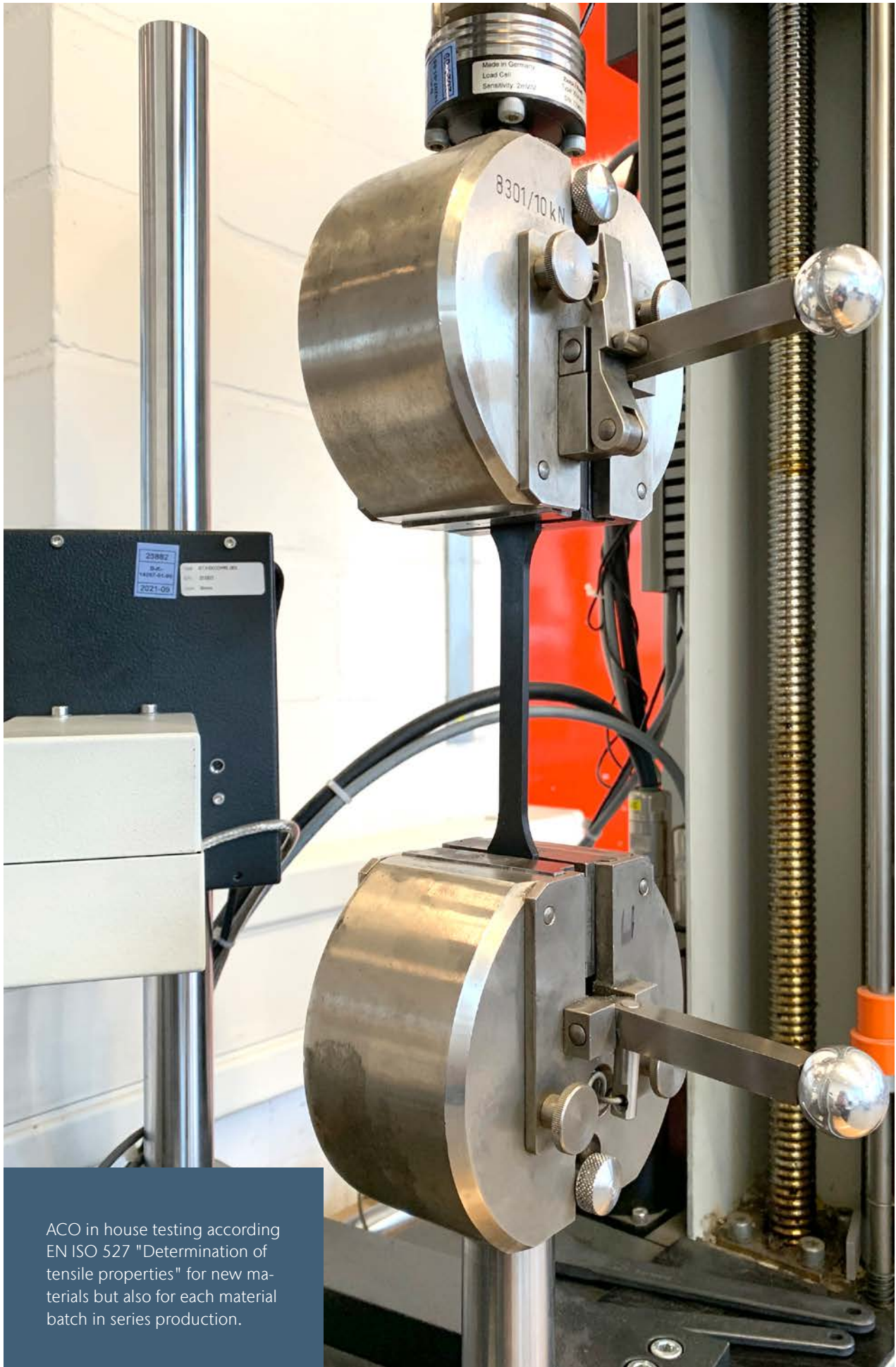
Mechanical properties, creep properties and the long-term resistance to environmental influences are examined in a variety of tests.

These investigations are carried out according to the standards of DIN norms, for example :

- EN ISO 899-2
Determination of creep behaviour
- EN ISO 178
Determination of flexural properties
- EN ISO 179-1
Determination of Charpy impact properties
- EN ISO 527
Determination of tensile properties
- EN ISO 11357-6
Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)



ACO in house testing according EN ISO 899-2 "Determination of creep behavior" to ensure also series production quality.



ACO in house testing according EN ISO 527 "Determination of tensile properties" for new materials but also for each material batch in series production.

ACO. we care for water

Intelligent drainage systems from ACO increasingly use smart technology to ensure that rainwater and wastewater are drained, or temporarily stored. With innovative separation and filter technology, we prevent water contamination. We accept the challenge of reusing water, and thus establishing a resource-saving cycle.

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