



**Engineering progress
Enhancing lives**

**Ready for the
pressures of today,
tomorrow and
beyond.**

AWADUKT Sewer Pipe System PP: Secure sewer
pipes for increasing dynamic loads



REHAU

AWADUKT PP – A class of its own

Your benefits at a glance



30,000 km of the European sewer network is perfectly equipped for the future thanks to AWADUKT PP sewer pipe systems.

Up to 250 x higher dynamic load capacity
compared to PP pipes with mineral filler¹.
More information on Page 7

10 Year Warranty
for the complete system.
More information on Page 9

**30 % faster installation² as they are
90 % lighter than concrete pipes³.**
More information on Page 7

100 % Reliability
a perfectly safe working system:
Pipe – Chambers – Fittings – Service.
More information on Page 9

No. 1 for Peace of Mind
REHAU carries out structural
calculations under dynamic loads.
More information on Page 5

At least 40 x more impact resistant
than clay⁴. Choose the right material.
More information on Page 7

One call is all you need.
Our competent staff are knowledgeable
and ready to take your call.

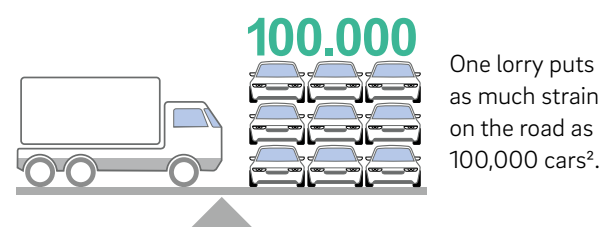
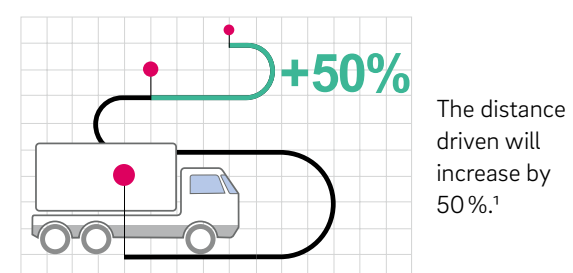
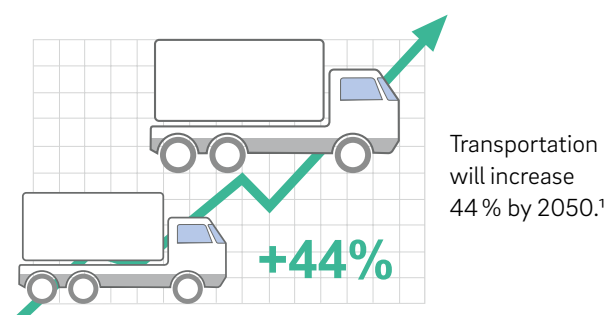
¹⁾ Source: Correspondence wastewater, 2013, „Sewage pipes in comparison“ section.5 ²⁾ Source: Installation Times TEPPFA, 2013, taken from Sewer Installation Time – Plastics versus Concrete ³⁾ Source: Concrete pipe weights taken from www.berdingbeton.de
⁴⁾ Source: MFPA Weimar, 2003, report B45/454/03

The challenge of the future

Our solution: Secure sewer pipes for increasing dynamic loads

In the coming decades, a huge increase of heavy traffic will be on our streets. Freight traffic will more than double by the year 2050¹, leading to a considerably higher dynamic load for the underground infrastructure.

Increasing traffic loads



95% of all constructors

place special importance on dynamic load-bearing capabilities³

REHAU has recognised the increasing demand for sewer networks and offers you a complete sewer system solution, that's already built for the future.

AWADUKT PP has optimum values for static and dynamic load-bearing capacity – for a permanently secure sewer network.

¹ Source: progtrans (on behalf of the Federal Ministry for traffic, construction and urban development), 2007, Final report 'Assessment of the long term development of freight transport in Germany by 2050'

² Source: DIE ZEIT, 2011, no. 31/2011. The example compares a car with a four-axle 30-tonne truck.

³ Source: Survey of the company REHAU, 2013



REHAU carry out structural calculations under dynamic loads

No. 1 for peace of mind

Reliable planning from the start with structural calculations by REHAU

The increasing traffic on our roads verify the importance of dynamic load-bearing capacity. REHAU offers you calculations based on tested material parameters and assurance that increasing loads will be borne by our pipe system.

Free and reliable calculation for specifiers and builders:

- The material parameters have been determined by extensive repeated load cycle trials for the dynamic load-bearing capacity.
- These material parameters are incorporated into the structural calculation as per ATV-DVWK-A 127.
- This establishes the safety margins for the AWADUKT PP system by taking into account all loads, including the dynamic loads, for the first time



Our specialists will carry out a project-related, structural calculation at your request. Simply get in touch with REHAU for more information.



Choose the right material

AWADUKT PP SN/10/HPP SN16

100 % Free From Fillers

AWADUKT PP is considerably superior to other systems in a direct comparison due to the filler-free design made of high-quality polypropylene.

100 % Planning Reliability

Substantiated material properties enable a structural calculation also for dynamic loads.

Minimum 100 Year Service Life

AWADUKT PP sewer pipes and sewer chambers have a guaranteed service life of at least 100 years. This allows you a depreciation over a long period of time.

Flexible use of Bedding Material

The solid wall design offers the highest stability even in coarse-grained bedding material. As a result, you can for example, use backfilling materials up to a grain size of 75 mm for AWADUKT HPP SN16, which saves time and costs.



Up to 40 x more impact resistant than clay pipes¹

Common damage patterns such as cracks and fractures in commercially available traditional pipe systems (e.g. vitrified clay or concrete pipes) are virtually ruled out by the tough, further developed material polypropylene in AWADUKT PP.

Up to 250 x higher dynamic load capacity compared to PP pipes with mineral filler²

There are more differences between polymers than expected – REHAU AWADUKT pipes are made with 100% virgin material, whereas others can have up to 40% fillers. This addition of fillers leads to a loss of strength and load bearing capacity.

REHAU PP pipes were independently verified as best in class

An investigation by Dr. Fischer confirmed that polypropylene pipes that do not contain fillers have by far the best values in terms of impact resistance, dynamic load-bearing capacity and resistance to notches in a direct comparison with pipes containing fillers. You can find details about the investigation in article "A comparison of sewer pipes" published in „Korrespondenz Abwasser“ on 09/2013



Use the QR code to access the article.

30 % faster installation³ as 90 % lighter than concrete pipes⁴

PP sewer pipes are considerably lighter compared to concrete. This saves costs thanks to the elimination of heavy construction site equipment during the installation and the straight-forward assembly of pipes.

1) Source: MFPA Weimar, 2003, Report B45/454/03 2) Source: Korrespondenz Abwasser, 2013, A comparison of Sewer Pipes Part.5

3) Source: Installation times taken from TEPPFA, 2013, – Plastics versus Concrete

4) Source: Concrete pipe weight taken from www.berdingbeton.de

100 % reliability

AWADUKT PP – A complete system where everything fits.

Working with REHAU, provides you with a professionally designed system, with all components, such as pipe chambers and fittings all clearly detailed. Alongside great customer and technical service.



1 Continuous colour for clear identification
The integral colouration of the pipes requested in DIN EN 1852 enables a clear identification as a waste water and rainwater sewer thanks to the colours orange and blue used.

2 Leak-proof with Safety-Lock-System
The safety-lock system fixes the seal so reliably that it is virtually impossible to push it out during the push fit process. Giving a permanent leak proof sewer system. The connection up to 2.5 bar internal pressure remains leak-tight even with a slight deformation or bending. Thanks to this reason, you can also use AWADUKT PP in drinking water protection zones II and III.

3 Easy identification underground
The permanent, internal marking with details about the manufacturer, material, and diameter also allows a clear identification of the pipe system – even after installation.

4 10 Year warranty for the complete system
REHAU offers its customers 10 years warranty for the entire system. The warranty document is available on request.

5 Perfect compatibility of all components
AWADUKT PP offers you an universal solution with a very wide application range in combination with AWASCHACHT PP – from the standard application through to extreme requirements when draining chemically polluted and hot industrial waste water.

6 Standard ring stiffness of the entire system
REHAU offers you the matching fitting range for every pipe for a standard, minimum ring stiffness e.g. 16kN/m² for AWADUKT HPP SN16. This allows you to install them in shallow installation depths as well as deep top fill heights.

7 Made in Germany
The entire sewer network system is developed and produced by REHAU in Germany. The know-how of our employees as well as stringent quality inspections ensures top quality from the inception, design through to delivery.

Made in Germany



100 % leak-proof

thanks to the safety lock system which fixes the seal



100 % customer focused, 100 % free

Advice and support throughout your project

We will advise you on the telephone or on site, simply arrange an appointment with one of our specialists, who will support you throughout your whole project. The biggest advantage: the service is free-of-charge for you.

Profitability calculation

Benefit from our dynamic cost comparison calculations.

Sewer network planning tailored to your requirements

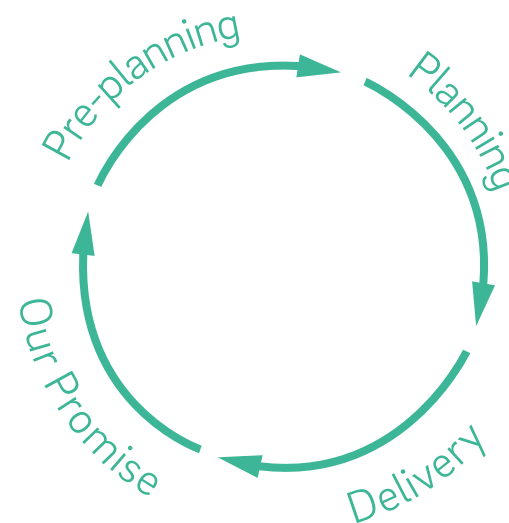
Benefit from the application and cost-optimised definition of nominal chamber widths.

Long-term reliability

We are confident in our product solutions and offer a 10 year warranty.

Quality Assurance

We have our sewer range tested and monitored regularly by independent institutes.



CAD Design Support

You will receive a drawing for every pipe and fitting for carrying out the construction work on request.

Technical Support

Our knowledgeable team are able to support every step of the way.

- Pipe Hydraulics: We will calculate the hydraulic dimensioning of polymer gravity pipelines for your task to DWA A 110 and DIN EN 752.
- Structural Design: Our specialists calculate structural designs for your application to ATV-DVWK A 127.
- New: Now also taking into account dynamic loads!

On-site Support

We will visit you on site and competently train you and your colleagues about our products.

Technical Documents

You will receive detailed installation, assembly and laying instructions for our products.

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Our verbal and written advice with regard to usage is based on years of experience and standardised assumptions and is provided to the best of our knowledge. The intended use of REHAU products is described comprehensively in the technical product information. The latest version can be viewed at

www.rehau.com/TI. We have no control over the application, use or processing of the products. Responsibility for these activities therefore remains entirely with the respective user/processor. Where claims for liability nonetheless arise, they shall be governed exclusively according to our terms and conditions, available at www.rehau.com/conditions, insofar as nothing else has been agreed upon with REHAU in writing. This shall also apply for all warranty claims, with the warranty applying to the consistent quality of our products in accordance with our specifications. Subject to technical changes.

Subject to technical modification.

Please observe the relevant technical product information, which can be obtained online at www.rehau.com/ti.

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