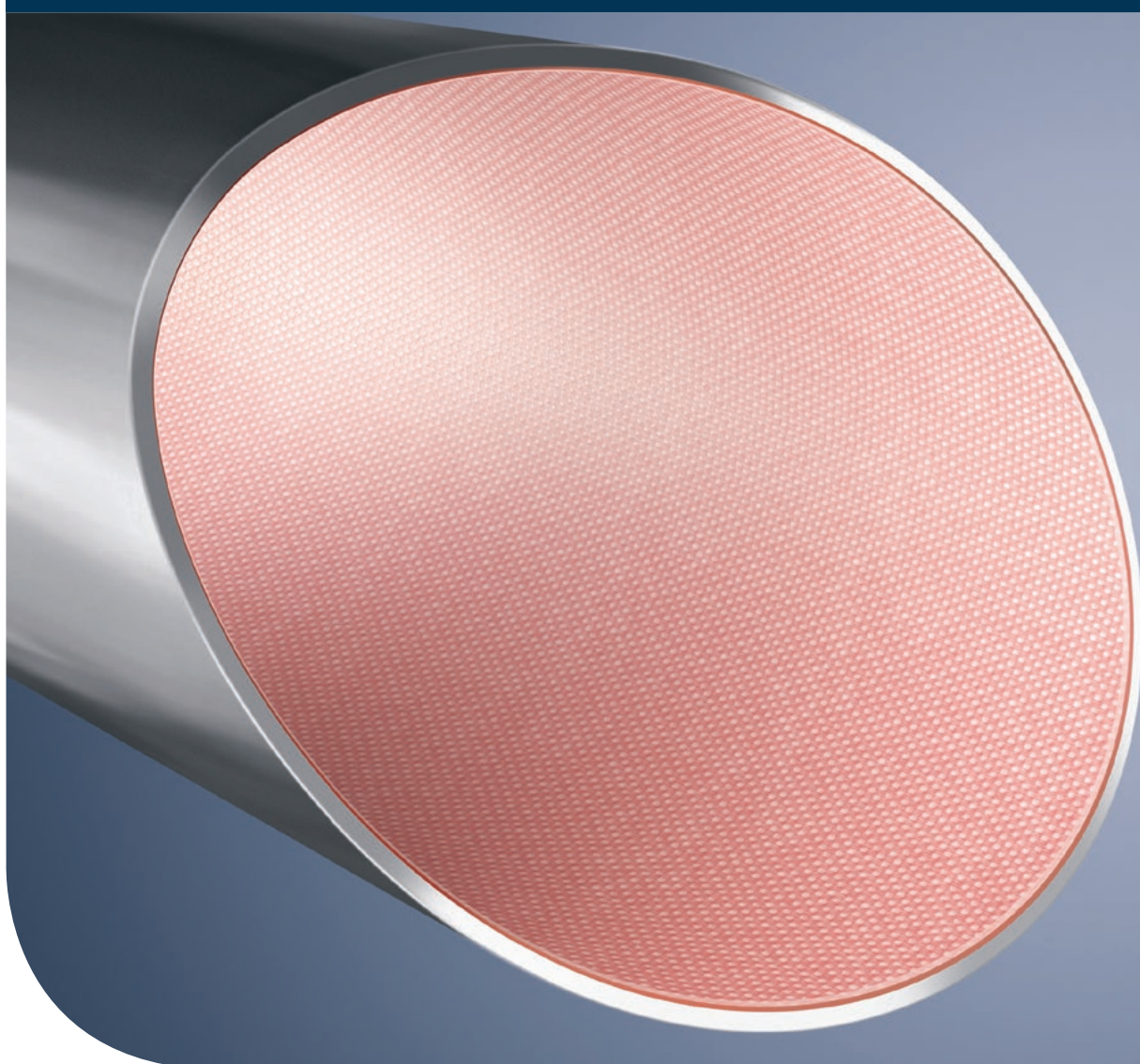


TUBETEX G

THE SEAMLESS WOVEN TEXTILE LINER FOR GAS PIPES



PROVIDING SOLUTIONS





CIPP installation unit



CIPP installation with TUBETEX G

NORDITUBE TECHNOLOGIES - YOUR TECHNOLOGY PARTNER

NordiTube Technologies, established since 1987, is a leading technology provider for trenchless pipe rehabilitation and has been producing CIPP liners for more than 30 years. Having its seat in Belgium the experts of NordiTube Technologies offer a wide range of innovative systems, materials, equipment, expertise and technical support to customers around the world.

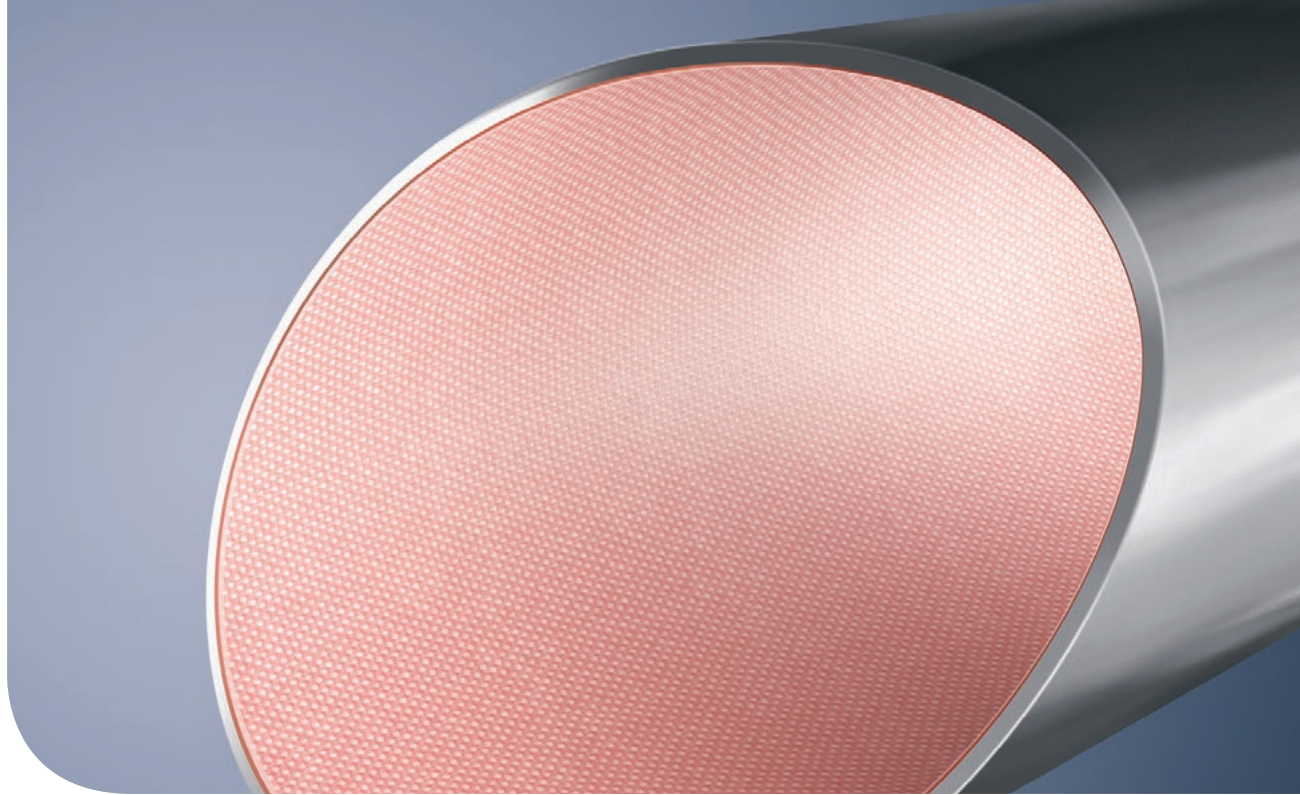
TRENCHLESS PIPE REHABILITATION - OUR EXPERTISE

Underground piping systems are an integral part of urban infrastructure. As pipes age and urban populations grow, quick and safe rehabilitation methods with only minimal impact on the environment and the existing infrastructure are needed.

INDIVIDUAL SOLUTIONS FOR YOUR NEEDS

NordiTube Technologie's portfolio comprises optimized solutions for maintenance, rehabilitation and renewal of all kind of pipes in dimensions ranging from DN 50 to 3000 mm.

This creates a "one-stop shop" for innovative pipe rehabilitation solutions. Under the motto "all from one source", NordiTube Technologies provides the entire range of pipe rehabilitation technologies, including materials, equipment, technical support and approved high-end liner systems.



TUBETEX G

MORE THAN 30 YEARS OF EXPERIENCE

NordiTube has over 30 years of experience in the rehabilitation of gas pipes with TUBETEX G. Three decades of experience and many hundreds of kilometers of rehabilitated pipes underline the maturity of TUBETEX G.

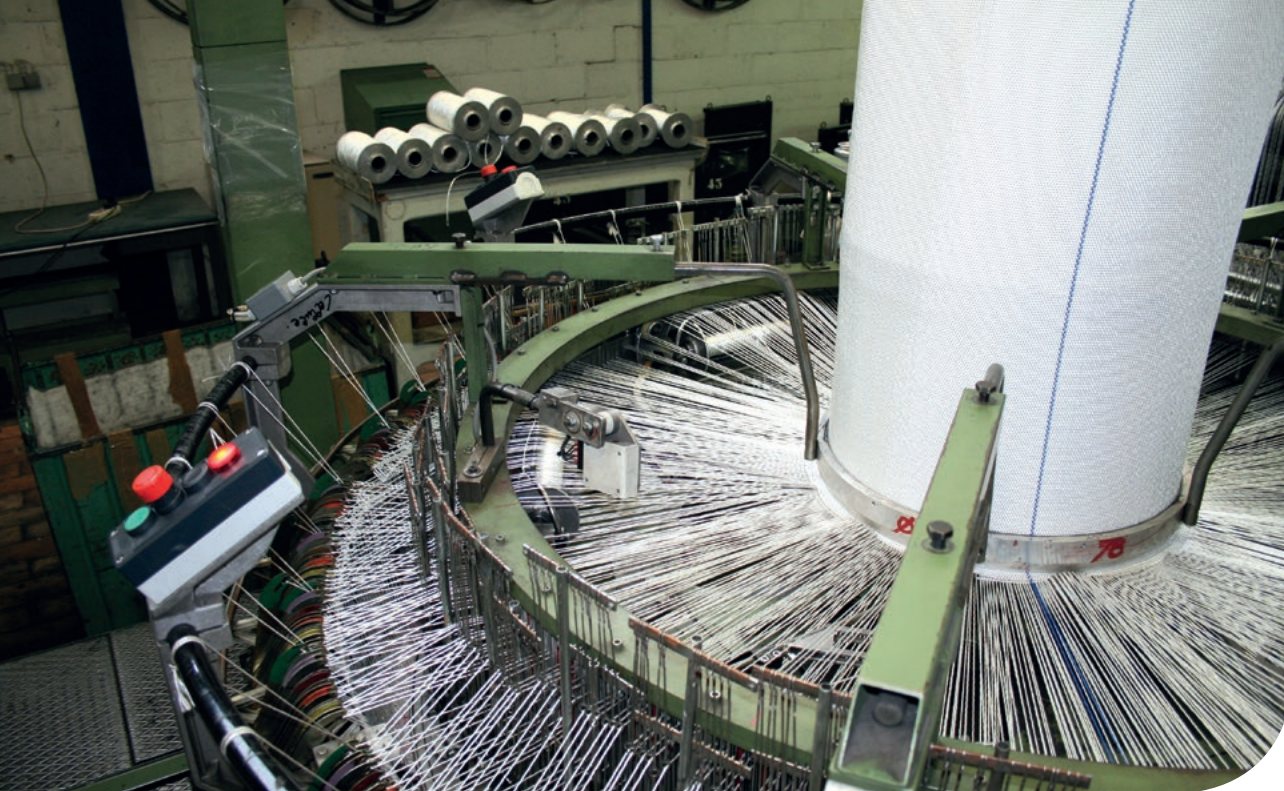
PERFECT SOLUTION FOR GAS MAINS

TUBETEX G is a CIPP liner for trenchless pipe rehabilitation especially developed for gas mains.



The liner has the following characteristics:

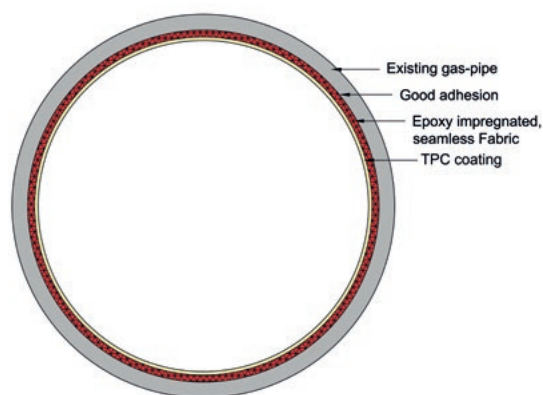
- Perfect solution for relining gas pipes
- Useable for the most kind of pipe materials like steel and cast iron
- Compatible with bends
- Interactive System – relies on adhesion with the host pipe



Weaving of TUBETEX fabric

THE SEAMLESS WOVEN LINER FOR GAS PIPES

TUBETEX G can be produced in a seamless production up to 500 – 600 m. The limitation occurs only due to the capacity of spools. Therefore, there is no seam in the woven fabric which means an even wallthickness over the circumference. This is an important feature for Class C linings according to ISO 11295 which relies on bonding, especially for gas pipes.



DESIGN OF TUBETEX G

TUBETEX G liner consists of a seamless round woven textile liner, having on one side a coating of TPC (Thermoplastic Copolyester) which is the new inner pipe surface. Using a modified epoxy resin with good adhesion and flexibility, the uncoated face of TUBETEX G is entirely bonded to host pipe. TUBETEX G is an adhesive-backed hose renovation technique. It is an interactive system relying on the bonding with the host pipe and is classified as Class C according to ISO 11295.



Quality & Approvals:

The product quality of TUBETEX G is tested and verified regularly by external laboratories. The system is tested according to DVGW GW 327. Further industrial approvals are possible.



SOLUTION FOR THE NEXT DECADES

NORDITUBE products offer a long-lasting and effective solution for trenchless rehabilitation of pipelines – without even no excavation. Therefore, traffic disruption as well as dust pollution and CO2 emission are minimized.

Beside the environmental advantages, TUBETEX G boasts numerous other unique benefits:

- Lifetime of pipe is increased
- Flow performance is improved
- Stops internal corrosion
- Seals leaking joints and corrosion pits
- Remains tight in case of radial cracks and displacement
- Very good hole and gap span

PERFORMANCE DATA

TUBETEX G has the following technical properties:

- DN 150 – 1000 mm
- Average installation lengths 200 m
- Interactive pressure classification up to 30 bar according to DVGW GW 327
- Bends feasible
- Thickness of coating: 1 mm
- Total thickness (i-stage): ~3 mm
- Class C: Semi structural (ISO 11295)
- Curing method: Steam
- Installation method: Inversion



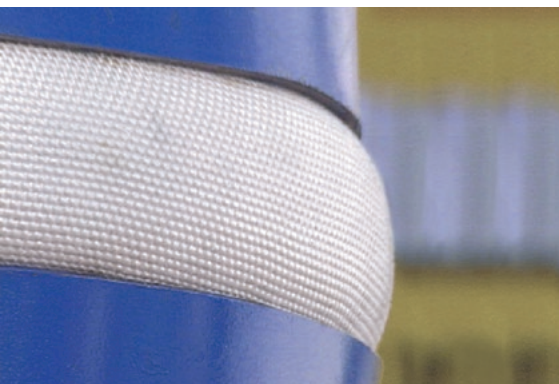
Extension of life-time of pipe



Maximum operating pressure up to 30 bar



Inversion of TUBETEX G



Hole and gap span solution

THE BENEFITS AT A GLANCE

In comparison to competing technologies, the benefits of TUBETEX G are obvious:

ADVANTAGES OF TUBETEX	➔ YOUR BENEFIT
Fast installation	➔ High efficiency, less costs due to perfectly harmonized materials and optimized installation methods
High elasticity of liner	➔ Good performance in bends
Very good hole and gap span	➔ Interactive pressure classification up to 30 bar according to DVGW GW 327
Bonding to the host pipe	➔ Simple and inexpensive connection technology
Use of warm curing Epoxy resins	➔ Long installation lengths through good processing time ➔ Short installation time through fast curing (steam) ➔ Reliable bonding over the lifetime
TPC coating	➔ Approved for application in gas pipes, good resistance and smooth surface
Thin and even wallthickness	➔ No perceptible influence on the rate of flow of the pipe



PIPE CLEANING - PREPARATION GRADES

Since TUBETEX is an interactive system which relies on bonding, the cleaning grades Wa2 or Sa2 are obligatory:

- Wa 2 - Thorough Water Jetting
- Sa 2 - Commercial Blast Cleaning

REFERENCE PROJECTS

In the past 30 years many successful projects and several hundreds of kilometers of TUBETEX G have been installed for numerous clients, like Mosgaz, GASAG or RAG and cities worldwide, including in Russia, Germany, Austria and China (Shanghai).

Below you will find a selection of projects, that have already successfully accomplished:

Country	Name of Supplier	TUBETEX G projects
Russia	Mosgaz	Since 2009
Germany	Stadwerke Bad Homburg	Since 2009
Austria	RAG – Rohöl Aufsuchung	Since 2001
Germany	GASAG	Since 2000
Austria	Wienenergie	Since 1999



Thorough Water Jetting Unit for cleaning of the pipe



Inversion drum for liner installation



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