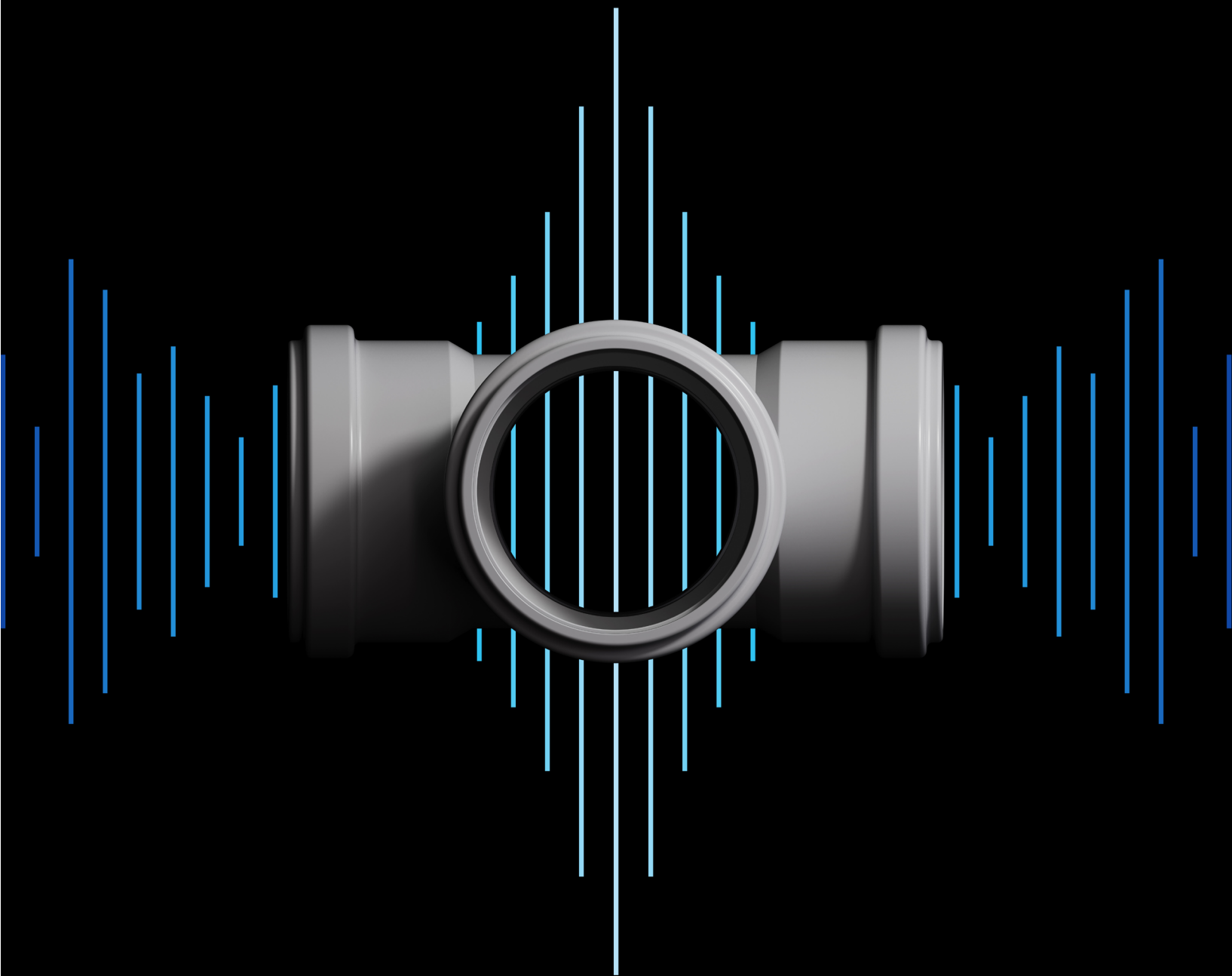


**+GF+**

# Flush out the noise

**Silenta**



Excellence  
in **Flow<sup>+</sup>**



# The sound of stillness

In modern construction, drainage systems are essential infrastructure that most occupants never think about... until they hear them.

### The cost of noise

A well-designed waste water system operates silently in the background, while a poorly chosen one creates constant disruption. The challenge lies not just in moving water efficiently, but in doing so without compromising the comfort and quality of life for building occupants. Noise from drainage systems affects people daily in residential buildings, hotels, hospitals, and offices. The sound of rushing water, rattling pipes, and vibrating connections travels through walls and floors, disturbing sleep, interrupting conversations, and reducing property values. Beyond acoustic comfort, modern drainage systems must address fire safety requirements, chemical resistance, and long-term durability. These challenges are amplified by increasing urbanization, higher building densities, and stricter building regulations demanding better acoustic performance.

Historically, cast iron and PVC pipes dominated waste water applications. Cast iron offered durability and some natural sound dampening due to its mass, making it the preferred choice for multi-story buildings. PVC became popular for its cost-effectiveness and ease of installation. Both materials established themselves as reliable standards that installers trusted and building codes accepted.

### Redefining expectations

However, traditional materials come with significant drawbacks. Cast iron is heavy, requiring substantial structural support and making installation labor-intensive and time consuming. Corrosion over time leads to leaks and costly replacements. Standard PVC pipes, while lightweight and affordable, transmit noise freely: every flush becomes audible throughout the building. Neither material adequately addresses the acoustic demands of modern living spaces where comfort and quiet are not optional, but expected.

These limitations create the foundation for today's biggest challenge in waste water systems: delivering acoustic comfort while maintaining durability, installation efficiency, and environmental responsibility. Buildings are no longer judged solely on functionality. Occupant wellbeing, quality of life, and acoustic comfort have become essential criteria for successful construction projects.

Silenta

# Flush out the noise

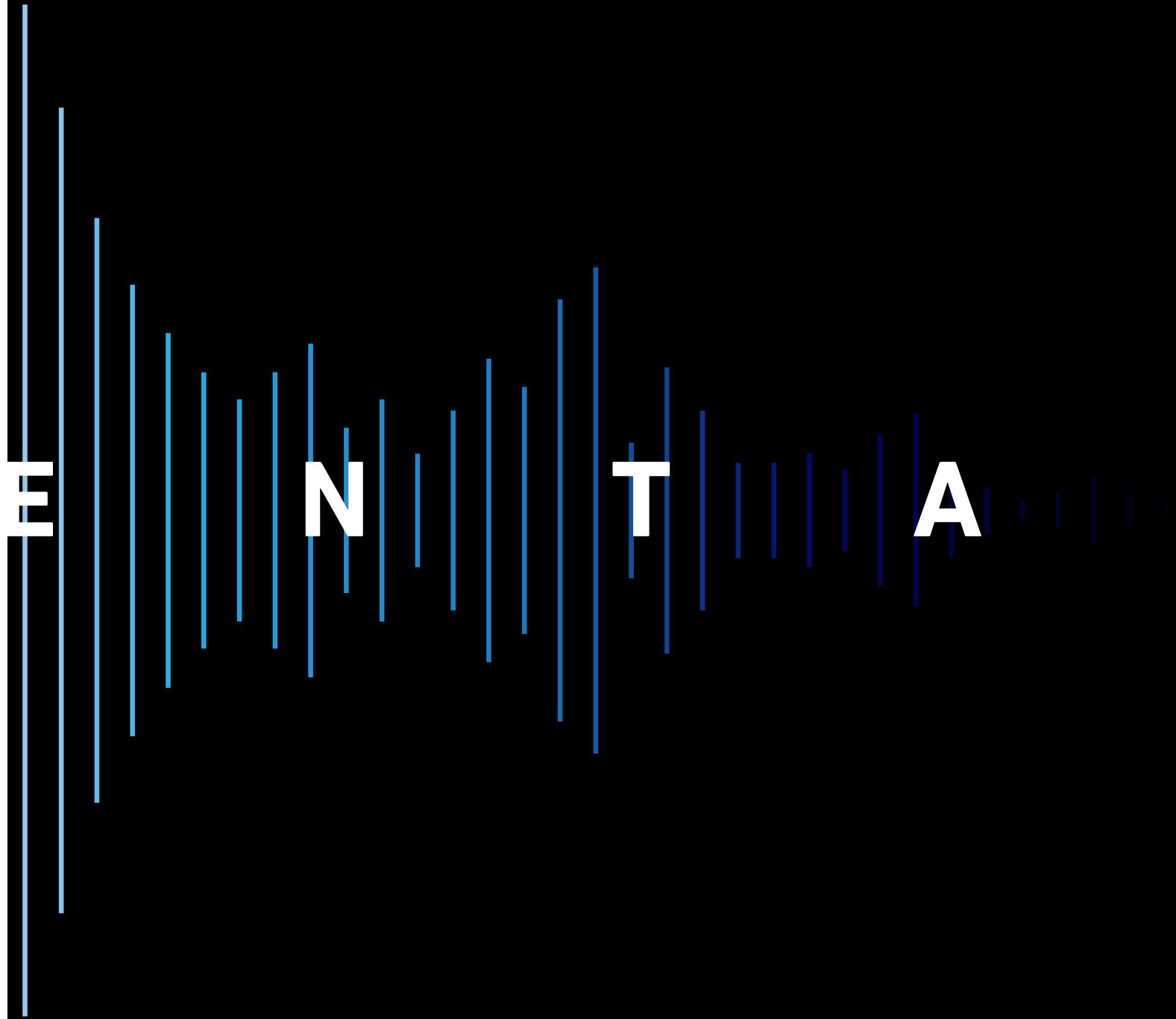


SILENCE

**Engineered for comfort**

The challenges are real: noisy drainage systems disrupt daily life, reduce property values, and compromise building quality. Traditional materials cannot adequately address modern acoustic demands.

Silenta delivers the solution: sound-insulated drainage systems engineered for acoustic comfort.

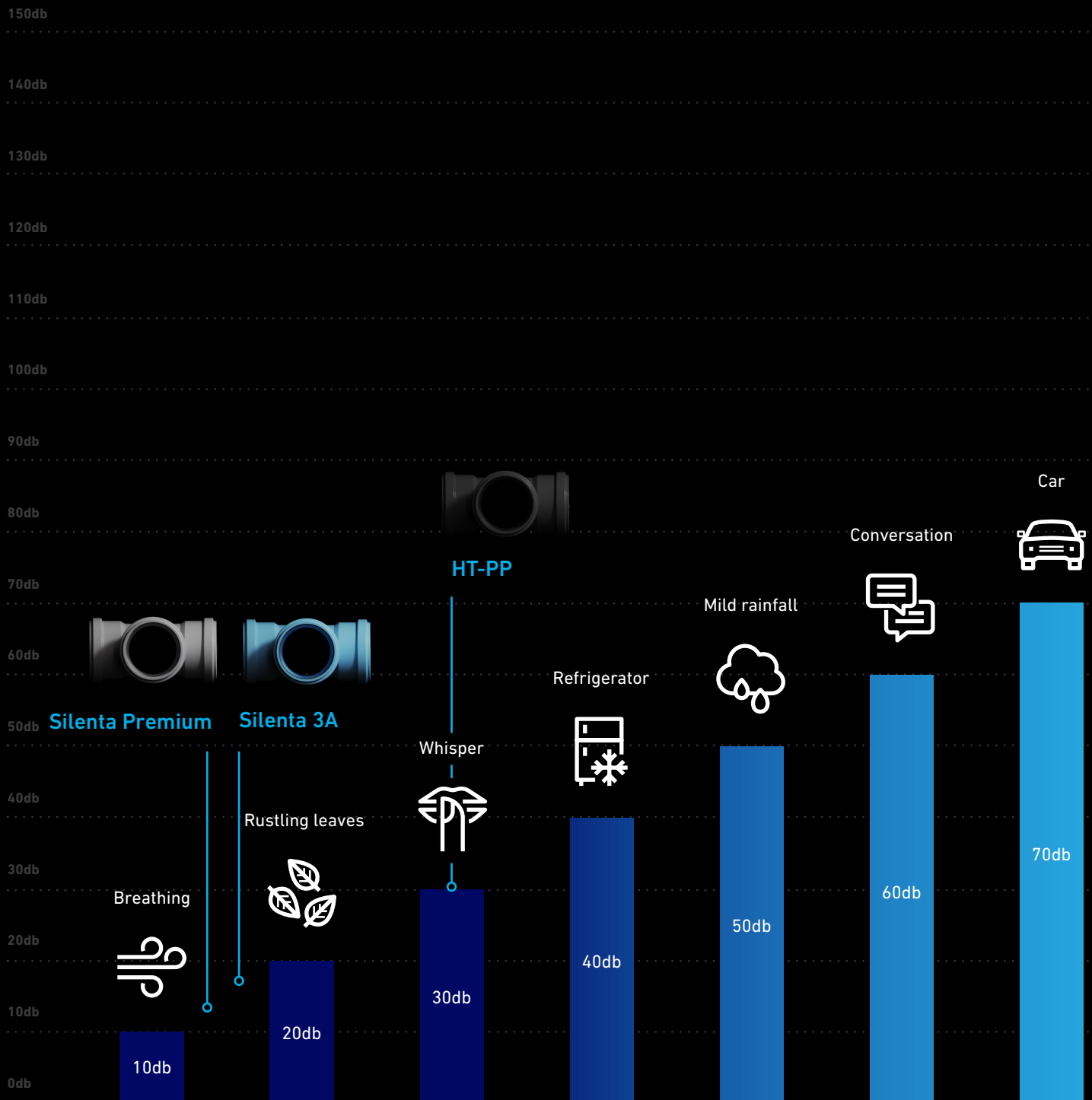


**> 50%**  
noise reduction vs.  
standard PP-pipes

## Sound-insulated drainage systems

# Quietly confident

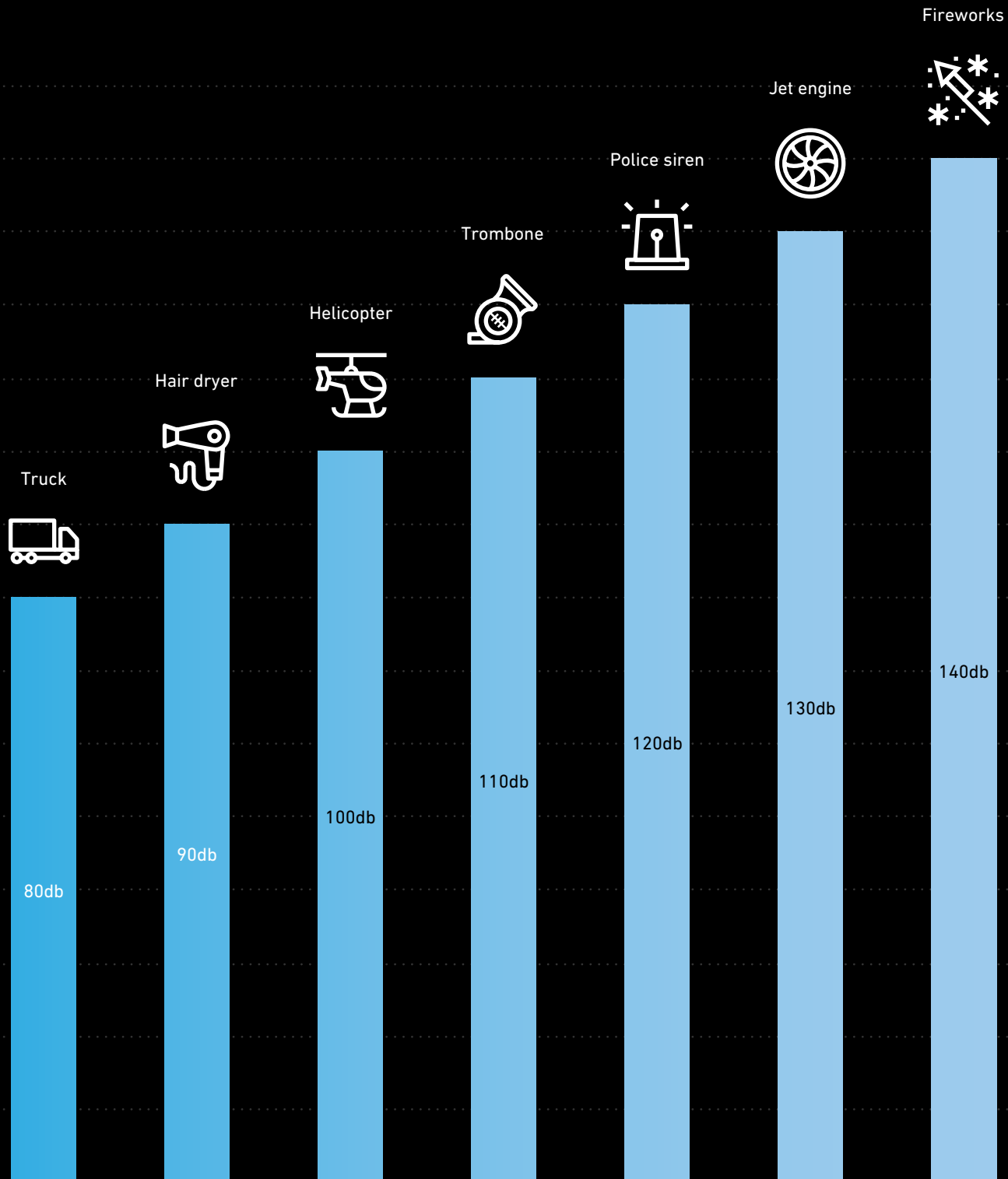
### Decibel sound levels



Decibels are how we measure sound, but numbers alone don't tell the full story. When comparing drainage systems, seemingly small numbers translate to dramatic differences in actual noise levels experienced by building occupants.

### Top of the range acoustic absorption

Everyday comparisons bring acoustic performance into perspective. From the distant hum of a refrigerator to the disruptive noise of a hair dryer, these reference points show where Silenta delivers measurable comfort. Lower decibel values means quieter environments and better quality of life.



Silenta system range

# Your full solution partner



## The right fit for every project

Every building has unique acoustic requirements and performance expectations. Silenta offers three distinct system levels, each engineered to deliver reliable drainage performance while addressing different project priorities. From essential functionality to industry-leading acoustic comfort, our range ensures installers and planners can specify the optimal solution for any application.

All three systems share the same foundation: high-quality polypropylene construction, push-fit installation, and GF reliability.

## HT-PP

Provides reliable drainage for straightforward installations.

**Silenta 3A**

Delivers proven acoustic performance for residential and commercial buildings.



**Silenta Premium**

Sets the benchmark with exceptional sound insulation for premium applications.

Advanced materials

# Sound absorbing structure

Sound reduction begins with intelligent material design. Each Silenta system uses a specific layer configuration engineered to balance acoustic performance, structural durability, and installation efficiency.

## Inner layer

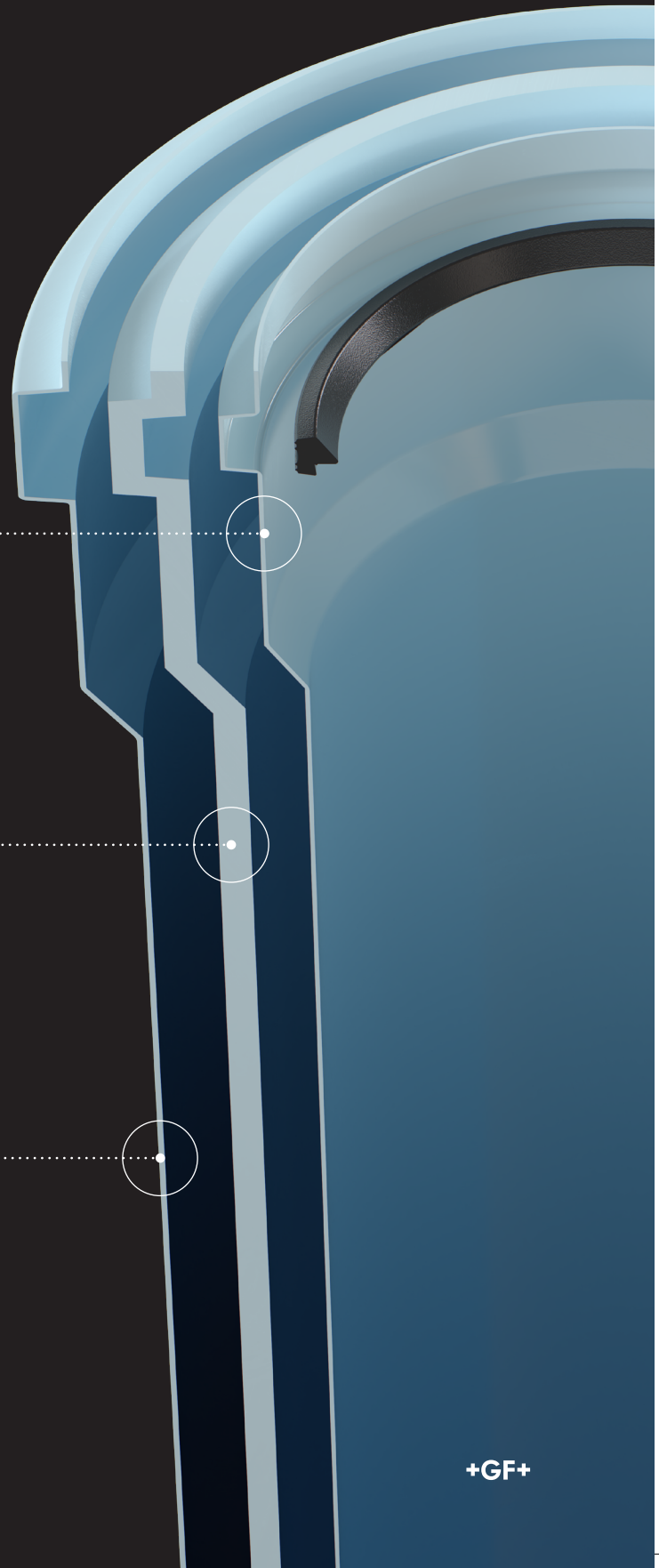
Perfect flow performance, superior chemical resistance that prevents corrosion and abrasion, and built to withstand high temperatures.

## Middle layer

High molecular structure and special composite formula absorb and prevent sound waves.

## Outer layer

Resistant to high temperatures and impacts.





### Special gasket system

Guarantees water tightness while the geometrical properties of the gasket groove enables fast, effortless assembly.

### Different diameter options

Silenta 3A dimension range:  
DN 32-200 mm.

HT-PP delivers reliable drainage through a streamlined single-layer design, while Silenta 3A and Silenta Premium incorporate three-layer technology where a specialized middle layer with high molecular structure absorbs and dampens sound waves. The Silenta Premium system takes this further with an enhanced composite formulation, delivering exceptional acoustic performance.

All three systems feature a specialized gasket design that ensures water-tight connections while allowing thermal movement. The push-fit socket connection provides fast, reliable installation across the entire range.

Ultimate acoustic comfort

# Silenta Premium



## Exceptional performance for high-end projects

Silenta Premium delivers industry-leading acoustic performance for applications where silence matters most. This three-layer system sets the benchmark for sound-insulated drainage. Premium residential developments, luxury hotels, hospitals, and office buildings demanding the highest acoustic standards benefit from its enhanced composite formulation and specialized TPE segmented gasket technology.

The system handles hot, cold, and acidic waste water while maintaining long-term durability through its impact-resistant design. Available in diameters from 58mm to 200mm with comprehensive fittings and accessories, Silenta Premium provides complete drainage solutions for projects demanding the highest standards in acoustic comfort and building quality.

## Field of application

### Work areas

Office buildings, hospitals, conference halls

### Public domains

Schools, colleges, libraries, community centers, tutoring centers

### Residential buildings

Premium houses, residences, apartments, luxury hotels



## Features



Excellent sound insulation



Reaction to fire classification:  
Silenta Premium: D - s2, d2  
Silenta 3A: D - s2, d2  
HT-PP: E



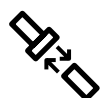
Halogen Free: Does not release harmful halogenic gases in the event of fire D-s2, d2 according to BS EN 13501-1



Acid-resistant for diverse applications



Temperature-resistant construction



Push-fit socket connection

## Benefits



Highest level of acoustic comfort for occupants



Extended system life cycle



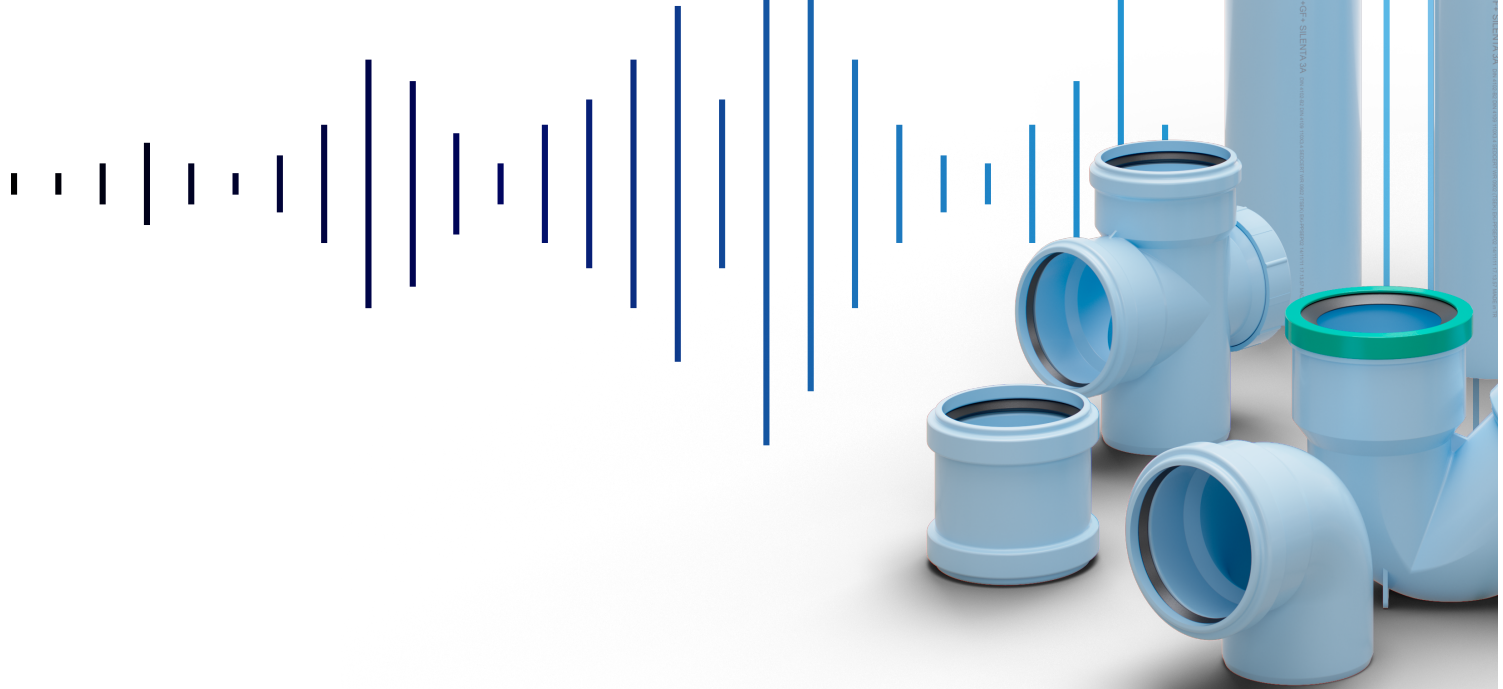
Recyclable: Environmental Product Declaration available



Increased property value through superior acoustic performance

Proven acoustic comfort

# Silenta 3A



#### The trusted choice for residential and commercial buildings

Silenta 3A combines excellent acoustic performance with proven reliability, making it the preferred solution for single-family homes, multi-family residential buildings, and commercial applications. This three-layer system uses specially formulated and reinforced PP material to deliver consistent sound insulation that transforms building comfort.

Engineered for environments where impact resistance, durability, and acoustic control are essential, Silenta 3A handle the demands of modern drainage systems. Available in diameters from 32 mm to 200 mm with SBR gasket technology.

#### Field of application

##### Work areas

Office buildings, hospitals, conference halls

##### Public domains

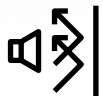
Schools, colleges, libraries, community centers, tutoring centers

##### Residential buildings

Houses, residences, apartments, hotels



## Features



Excellent  
sound insulation



Halogen-free: Does not release harmful  
halogenic gases in the event of fire  
D-s2, d2 according to BS EN 13501-1



Acid-resistant for  
diverse applications



Temperature-resistant  
construction



Push-fit  
socket connection

## Benefits



Highest level of acoustic  
comfort for occupants



Extended system  
life cycle



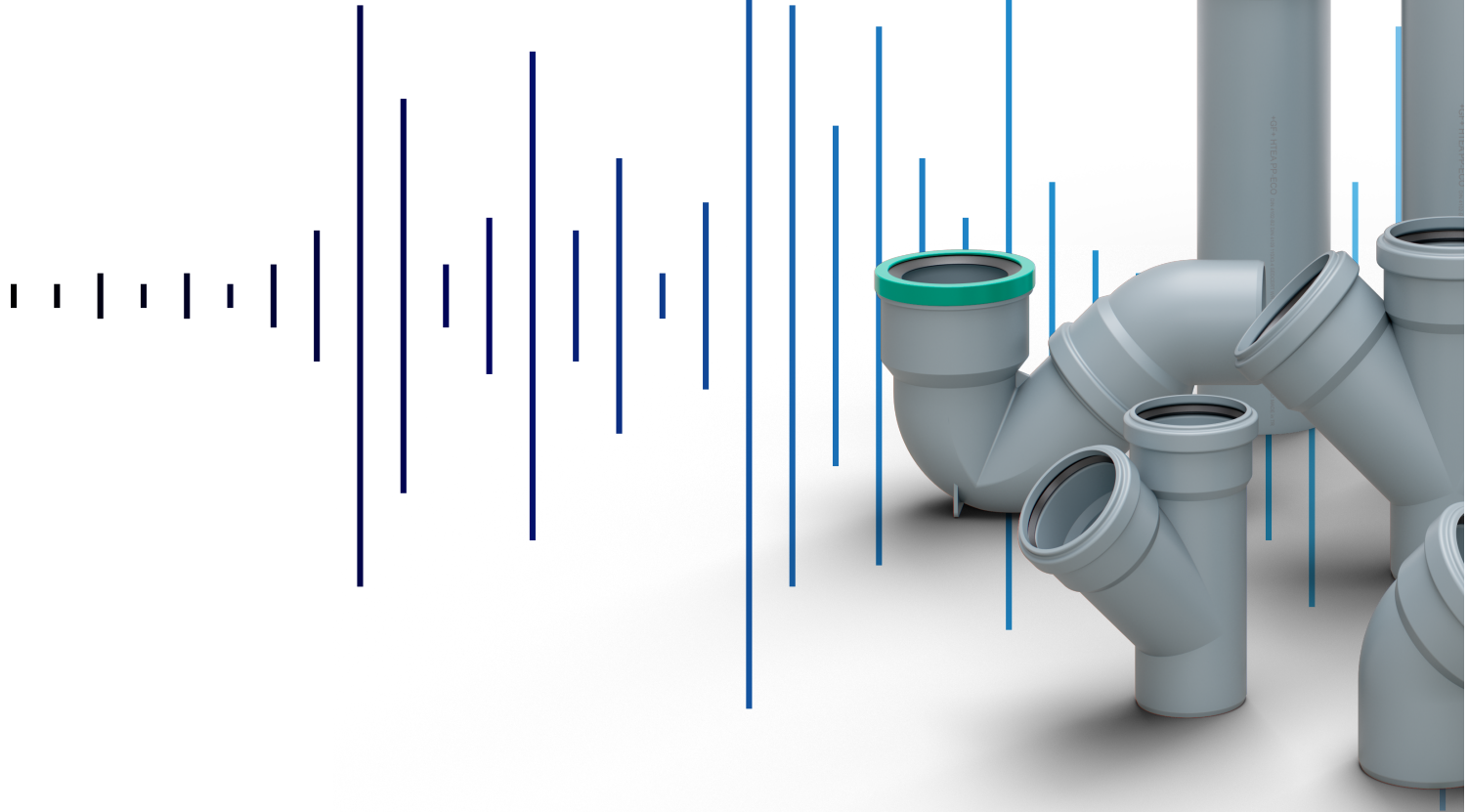
Recyclable: Environmental  
Product Declaration available



Reliable performance for  
mainstream projects

## Essential drainage performance

# HT-PP



### Reliable drainage for straightforward installations

HT-PP provides dependable waste water drainage where acoustic performance is not the primary requirement. Built from high-quality polypropylene, this lightweight system delivers exceptional resistance to chemical agents and abrasion, making it ideal for building drainage and underground applications.

The single-layer design keeps installation simple and efficient. Low weight reduces handling time and physical demands during logistics and assembly. Push-fit jointing technology ensures fast, reliable connections without specialized equipment. Available in diameters from 32 mm to 160 mm, HT-PP offers cost-effective performance for projects prioritizing installation efficiency and chemical resistance.

### Field of application

#### Work areas

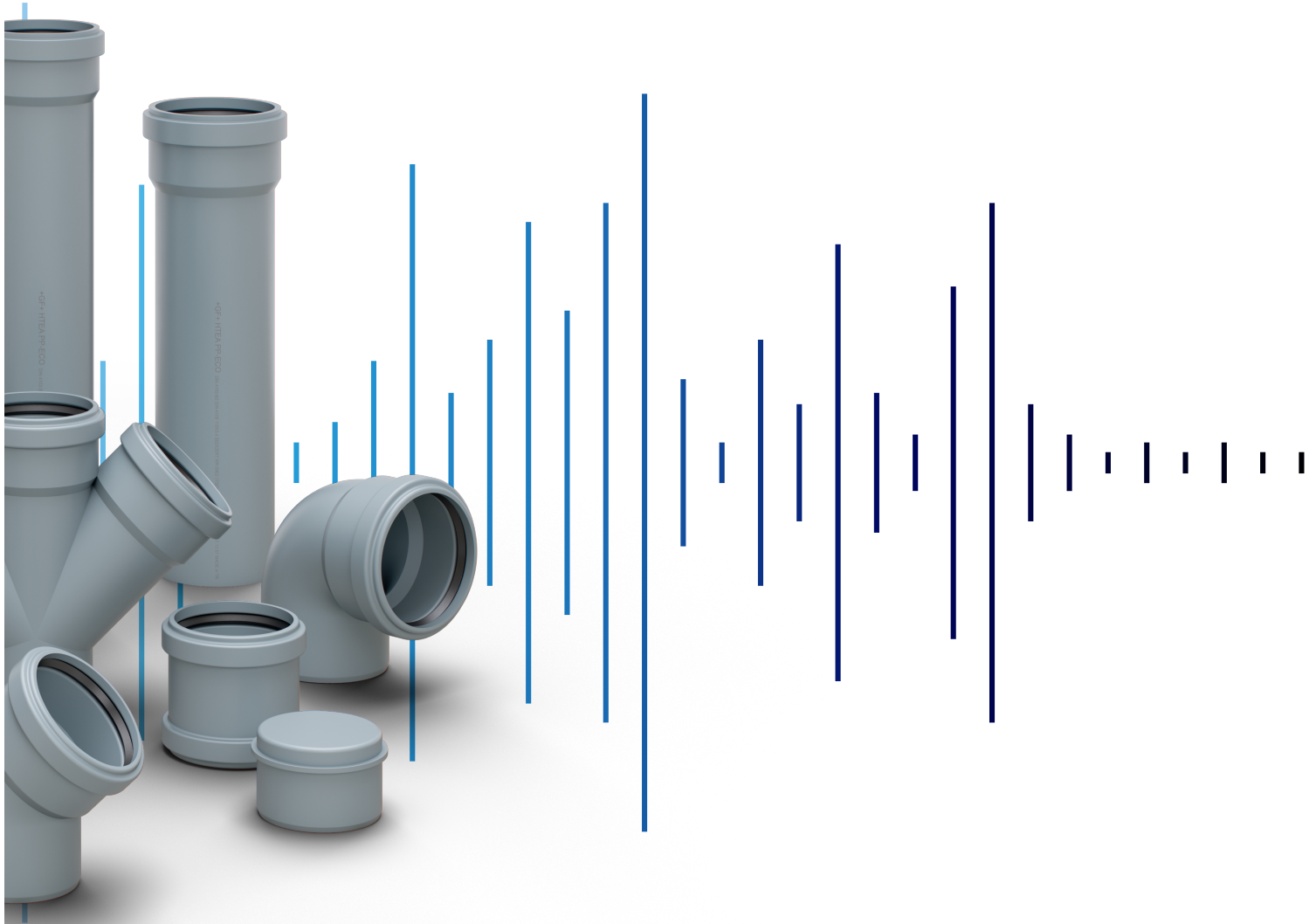
Office buildings, hospitals, conference halls

#### Public domains

Schools, colleges, libraries, community centers, tutoring centers

#### Residential buildings

Houses, residences, apartments, hotels



## Features



High impact  
resistance



Lightweight  
construction



Easy and cost-efficient  
jointing technology



Reaction to fire classification:  
Silenta Premium: D - s2, d2  
Silenta 3A: D - s2, d2  
HT-PP: E



Superior chemical and  
abrasion resistance



Push-fit  
socket connection

## Benefits



Reduced product loss during  
logistics and assembly



Simplified logistics and  
installation process



High time and  
effort efficiency



Lower physical demands  
for installers



Positive health impact

# Protecting your peace

## Health and wellbeing through acoustic comfort

Noise pollution in buildings affects more than comfort. Studies confirm that persistent exposure to unwanted sound disrupts sleep patterns, increases stress levels, and reduces overall quality of life. Drainage systems that operate multiple times daily create repetitive disturbances that accumulate over time, affecting residents, patients, hotel guests, and office workers.

Acoustic comfort has become a measurable indicator of building quality. Property values reflect this reality, with quieter buildings commanding premium prices and higher tenant satisfaction. Protecting occupants from drainage noise is no longer optional: it is essential infrastructure planning that directly impacts human well-being.

## Understanding drainage noise

Waste water systems generate sound through multiple mechanisms. Water rushing through pipes creates turbulence. Direction changes at fittings produce vibrations. High flow velocities amplify noise levels. These sounds travel through pipe walls into building structures, radiating into living and working spaces.

Common noise sources include:

- Toilet flushing
- Direction changes at elbows and junctions
- High water flow velocities
- Pipe joints and connections
- Discharge events
- Inadequate system planning
- Improper installation practices

Silenta addresses these challenges through specialized three-layer construction that absorbs vibrations at the source. The mineral-reinforced middle layer dampens sound waves before they can transfer to building structures. Critical connection points receive particular attention to minimize noise transmission where flow velocities and direction changes create the greatest acoustic impact.

## The case for sound protection

Building occupants deserve environments free from disruptive noise. Sound protection measures aim to create spaces where drainage systems operate without intruding on daily life. This means addressing both airborne sound that travels through air and structure-borne sound that transmits through walls, floors, and ceilings.

Drainage noise falls into both categories. Water flow creates airborne sound within pipes. Vibrations transfer to building materials, becoming structure-borne noise that radiates throughout the structure. Traditional single-layer pipes can't adequately control these transmission paths.

Silenta's three-layer technology provides comprehensive sound protection. The specialized middle layer absorbs acoustic energy, preventing it from reaching building structures. This dual approach of controlling both airborne and structure-borne sound ensures occupants experience the peace and quiet they expect from modern buildings.

## Applications

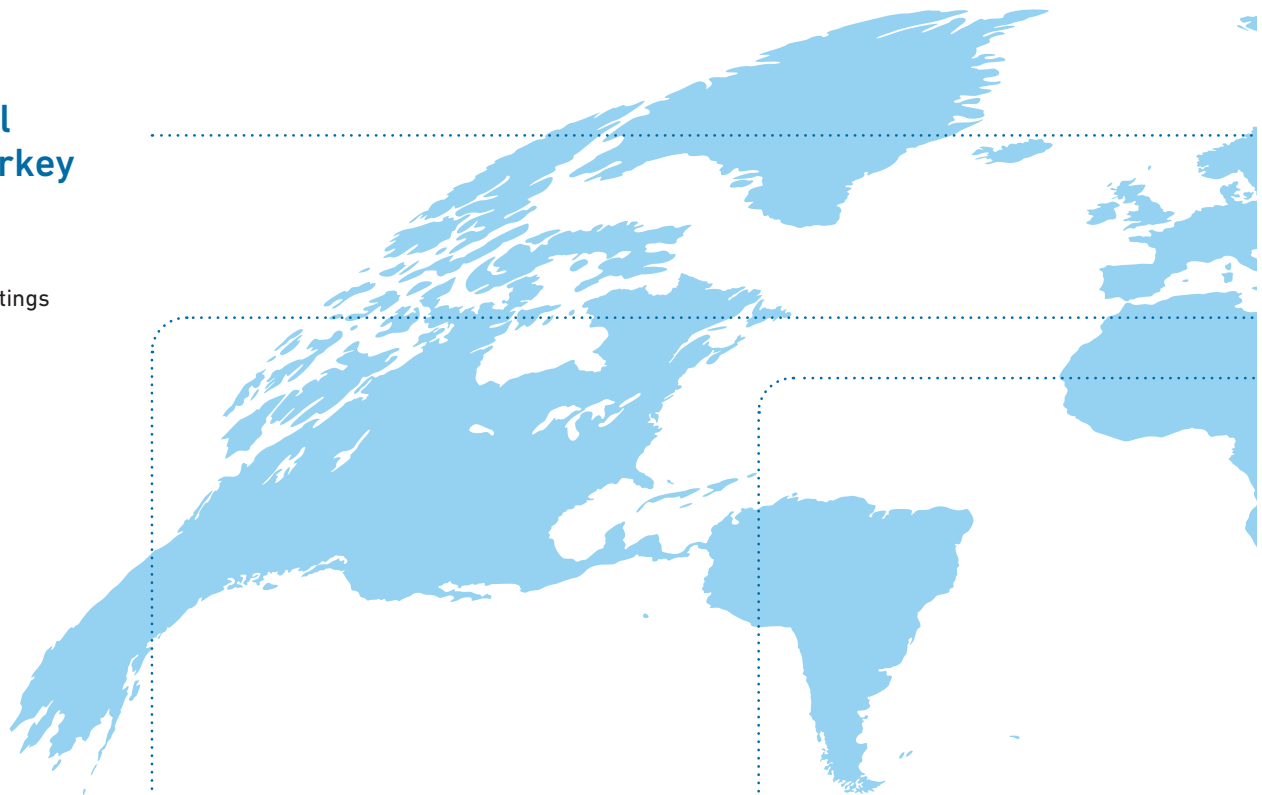
# Ensuring long-term quality and peace of mind in every connection



### Governmental building in Turkey

#### Products

Silenta Premium +  
Silenta 3A pipes and fittings



### High rise hotel in Azerbaijan

#### Products

Silenta Premium pipes and fittings



### Airport in Saudi Arabia

#### Products

Silenta Premium pipes and fittings



## Shopping mall in UAE

### Products

Silenta Premium +  
Silenta 3A pipes and fittings



## High rise residential building in India

### Products

Silenta Premium pipes and fittings



## Luxury residential housing in Malaysia

### Products

Silenta 3A fittings



# Next steps

## Proven solutions

Acoustic comfort in waste water drainage is no longer a compromise between performance and installation efficiency. Silenta's three-tier approach ensures every project, from cost-conscious installations to premium developments, benefits from engineered sound reduction, durable construction, and reliable push-fit technology.

Buildings deserve drainage systems that operate silently in the background. Occupants deserve environments free from disruptive noise. Silenta makes both possible.

## Enjoy the silence

You've now explored how Silenta delivers acoustic comfort through intelligent material design and how each system addresses specific project requirements while maintaining the reliability and quality that defines GF.

Ready to specify the right system for your next project? The Silenta page provides detailed information for each system level, helping you make informed decisions across all building types.



Learn more at  
[georgfischer.com/silenta](https://georgfischer.com/silenta)



Watch on YouTube  
[@UponorEurope](https://www.youtube.com/@UponorEurope)

# Excellence in Flow

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