

# Smarter drainage solutions for Local Authority and Housing Association projects

A better way to ensure residential RMI work is completed with minimal disruption to residents



# Polypipe Building Services

Polypipe Building Services specialises in serving the commercial construction sector. From high-rise residential and commercial projects to healthcare and leisure facilities, we produce water supply and drainage solutions that help to make safe, sustainable buildings.

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***We understand the specific challenges that Local Authorities and Housing Associations can face when undertaking RMI projects. Refurbishing older buildings can be a complex task, with the need to minimise disruption to residents balanced by work that must often take into account multiple previous phases of building and renovation; often without access to original plans.***

Our offering is designed to alleviate these issues during the design and installation of drainage systems. This means that in choosing Polypipe Building Services you'll benefit from a system that optimises both performance and ease of installation.

## THIS IS OUR TERRAIN.

Through our Terrain brand, for decades we have set the industry benchmark for drainage systems. But we're looking forwards not back, with our knowledge and expertise proving crucial in the development of new products that help to address critical industry issues such as sustainability and building safety.

Keeping our market-leading position requires a constant dedication to developing new ideas so that we are able to offer only the best products. These ideas help to solve on-site problems, enable greater use of recycled materials and benefit both installers and building occupants alike.

This means that the Terrain range has a comprehensive selection of products to help meet the demands of modern construction projects. This includes our benchmark FUZE drainage stacks and PVC soil and waste systems, the Terrain Q noise reducing system, P.A.P.A.® & Pleura Vent Systems and Firetraps.

## THIS IS OUR EXPERTISE.

All our products and systems are backed by the hands-on Polypipe Building Services technical team, providing expert support to ensure you receive a system that's right for your project. Whether it's a single component or a full system, you can call upon our specialist advice and rely on us to deliver exactly what you need.

Our commitment to helping customers receive the very best solution for their particular requirements led to the creation of our unique Advantage Service. Offering bespoke design and fabrication, Advantage often proves the critical difference in more efficient drainage installation work.



# How we Support Public Sector RMI Projects

## PUBLIC SECTOR PROCESS AND SERVICE OFFERING.

We understand that in order to best support your project, our work must go beyond only the supply of drainage products. We must offer expert advice at the design stage and through into how the drainage system is manufactured to each project's unique requirements. This approach has been proven to help save disruption and time on site for public sector work across the UK.



### 1 We will work with Local Authority and Housing Association teams to identify the most effective drainage solution.

Our experienced technical sales team undertake a site survey. They will assess the condition of existing pipework using an ultrasonic tester and define any bespoke requirements relating to configuration, previous modifications and fire compartmentation with photographic evidence where replacement is recommended along with a quotation.

### 2 Your system will be designed by our Advantage team.

Specific project requirements as identified from our site survey are then used to develop a design that is tailored to your project. This will make use both of components available through our standard pre-assembly package and bespoke designs where required. The Polypipe Advantage team will produce detailed CAD drawings for approval, ensuring all designs are compliant to BS EN 12056 Part 2.

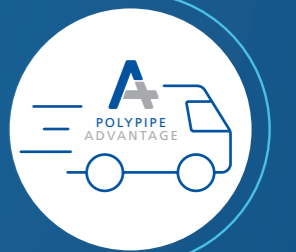


### 3 Once approved and ordered, your system will be fabricated.

With the final design we will manufacture your system at our production facilities. This will include fabrication work and associated testing to ensure the most efficient installation on site. All solutions are designed and manufactured within the existing BS EN 12056 (Part 2 and 3) and building Regulations Part H Standards/Regulations.

### 4 Your Terrain Drainage system is delivered direct to site.

Once complete, the drainage stacks will be transported to your site via your chosen distributor where it can be installed quickly and efficiently, with minimal disruption.



### 5 Installation is supported by on-site inspections.

The dedicated technical sales team work with the main contractors and installing contractors to ensure any pre-install training is done and the install goes smoothly in accordance to manufactures recommendations.



# Drainage Solutions

## DO YOUR CAST IRON SOIL PIPES LOOK LIKE THIS?

These are actual cast iron soil stacks removed from a high rise Local Authority building where ongoing system breakdown has caused these kinds of sanitation issues, such as leaking and blocked pipes.



## TERRAIN FUZE

Manufactured from high density polyethylene, Terrain FUZE HDPE is a high-performance drainage system delivering many advantages over cast iron and other traditional materials. It is lightweight and easy to install, with strong resistance to abrasion, chemicals, and extreme temperatures, plus its impact strength makes it almost unbreakable. Terrain FUZE is installed using a fully welded joint, providing a lifetime seal. The system is available in twelve diameters, from 40 to 315mm.



## TERRAIN PVC SOIL AND WASTE

Terrain PVC Soil and Waste is a comprehensive range of solvent-weld and push-fit PVC drainage solutions, leading the market in terms and quality and reliability in use. The Solvent-Weld System is fully engineered to take account of flow direction, connection, and expansion – proven to create a neat, permanent joint. Systems are available in eight sizes from 32 to 250mm. Terrain PVC has evolved with the times - we've set yet another industry standard in using up to 65% recycled material during the manufacturing process. Produced in line with BS EN 1453, this means that you can be sure of the same exceptional strength and durability you demand whilst meeting higher sustainability standards.



## TERRAIN Q

Terrain Q is an acoustic drainage system that sets new standards for sound dampening to help minimise disruption when the system is in use. Its multi-layered noise reducing system also provides increased fire retardancy, with a Fire Classification rating of B-s1, d0\*, crucial for today's large, multi-occupancy developments, education establishments and healthcare buildings. With a beautifully engineered push-fit mechanism, Terrain Q is secure, quick and simple to install.



## TERRAIN FIRETRAP

Terrain Firetrap is a fire range, developed to offer Terrain drainage systems with the best fire rating possible. The range features a selection of sleeves and collars that are specified to fit all Terrain drainage systems and offer up to four hours' fire protection. This allows you to use the system with confidence.



## TERRAIN P.A.P.A.®

The Terrain P.A.P.A.® is a positive air pressure attenuator, designed to mitigate the effects of positive air fluctuations in the drainage pipework system. As the ambient air pressure within the pipework starts to equalise, the bladder slowly releases the small volume of air into the pipework system to only 12m/s which will have no effect on the trap seals.



## TERRAIN 12 PORT MANIFOLD

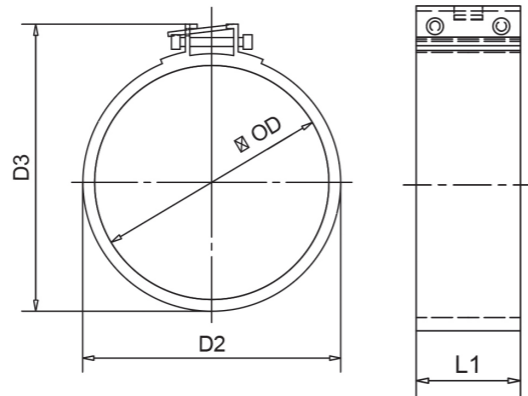
Our HDPE Manifold was designed with the customer in mind. Featuring 12 perfectly situated bosses which allows for multiple different entry points; all of which can be used simultaneously due to the engineered central baffle removing cross flow. The product is critical to the legacy system as in years to come various appliances can be added to the system using the readily available connections as opposed to damaging the integrity of the pipe.



## Mechanical Coupling

As a lightweight and cost-effective alternative jointing method for gravity drainage pipe systems, this coupling range has been designed for applications where reliability, durability and ease of installation are key.

Particularly well-suited to the highly demanding mechanical engineering and public health sectors, the Polypipe Mechanical Coupling's stainless steel case and EPDM gasket material ensure a long service life, while the availability of 6 different model variations make it suitable for use with a range of pipe diameters.



Part No.	Pipe OD (mm)	OD Tolerance (mm)	Working Pressure	L1 (mm)	D2 (mm)	D3 (mm)	Screw Size	Hex Socket Adapter (mm)	Weight (kg)
9110.110B*	110	109/112	1 Bar	65	121.4	165.4	M6X50	5	0.47
9110.160B*	160	159/162	1 Bar	65	171.4	215.4	M6X50	5	0.58
9110.110C •	114	110/114	1 Bar	65	125.4	169.4	M6X50	5	0.52
9110.160C •	165	160/165	1 Bar	65	176.4	220.4	M6X50	5	0.61

\* HDPE to HDPE • HDPE to Cast Iron

**CASING:** 304 Stainless Steel

**FASTENERS:** Alloy Steel, PTFE Coated

**GASKET:** EPDM (BS EN 681-2:2000)



Minimal Disruption.

# THIS IS OUR TERRAIN

Hundreds of high-rise buildings use our stack replacement service because we have decades of experience in drainage systems. With faster installation times, minimal disruption, and expert advice from start to finish, contractors, engineers and local authorities trust us to engineer solutions which meet their challenges.

Explore our innovative solutions: [polypipe.com/live-stack-replacement](https://polypipe.com/live-stack-replacement)

 **Polypipe**

Building Services



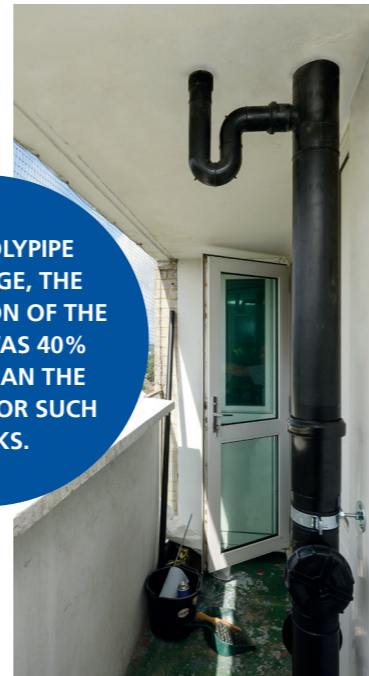
## Case Study

### MILLBROOK TOWER STANDS TALL FOLLOWING REPLACEMENT OF RAINWATER DRAINAGE STACKS

One of the tallest buildings in Southampton has had a complete drainage solution designed and installed without the temporary re-homing of any residents.



USING POLYPIPE ADVANTAGE, THE INSTALLATION OF THE SYSTEM WAS 40% FASTER THAN THE AVERAGE FOR SUCH WORKS.



Formerly the tallest building in Southampton, the Millbrook Tower stands at 240 feet. Built over 50 years ago, the building had a cast iron drainage system installed that had started to rust and fail, causing excessive leaking in the 144 flats in the development.

Southampton City Council (SCC) who wanted a complete holistic approach to the design, manufacture and installation of the replacement drainage system, approached Polypipe. In January 2016, eight members of the Direct Labour Organisation (DLO) department of SCC came to Polypipe's professional Development Centre in Aylesford for training to gain a better understanding of the specification, assembly and installation of plastic fabricated drainage stacks.

Working with SCC, as experts in providing intelligently engineered solutions for the movement of water and air around tall buildings, Polypipe assessed the failing drainage stacks in Millbrook Tower, and designed a new high-density polyethylene system. Terrain FUZE was installed due to a number of its key benefits over other more traditional materials.

Due to the inherent material characteristics of High Density Polyethylene (HDPE), Terrain FUZE lends itself to fabrication. Utilising Polypipe's unique Fabrication Service, the system was fabricated to exact specification and delivered to the site, where Southampton's DLO were able to complete the installation work across the 144 properties 40% faster than the average for such works. This meant that the residents of Millbrook Tower were able to remain in their properties, a key consideration when designing the drainage stacks of the building.

#### CASE STUDY BREAKDOWN

**Project**  
Millbrook Tower, Southampton.

**Client**  
Southampton City Council.

**Application**  
Live Stack Replacement.

**Products**  
Terrain FUZE.

Lighter in weight than cast iron, Terrain FUZE can feature longer pipe runs, so less jointing is required. As the system is jointed using electro-fusion welding, where the weld area is as strong as the host material, the system integrity is increased and consequently the risk of leaks in the development is dramatically reduced.

## Case Study

### HENNIKER POINT MORE EFFICIENT CUSTOM DRAINAGE SYSTEM FOR TOWER BLOCK RMI PROJECT

The high-rise Henniker Point building in Newham, East London dates from 1969 and is home to 91 flats. When signs appeared that the existing cast iron soil stack needed replacing, contractor Mulalley wanted to identify the most efficient way to undertake the work with minimal disruption to residents.



#### Complicated building layouts

Public sector RMI projects can be notoriously complex, as older buildings will often have been subject to different phases of renovation— meaning off-the-shelf drainage stacks can typically need time consuming adaptation work to install. Henniker Point was just such a complex building, and so consultants John Rowan & Partners and Polypipe Building Services were called in to explore options for the most durable and efficient solution.

Polypipe's work began by conducting a report on the existing drainage system to develop a design tailored to the layout of the building. With the original drawings for older buildings often not available or not representative of any subsequent modification work, this is an important step in ensuring the solution reflects specific project demands.

Polypipe Building Services Project Development Manager Graham Hicks: "Our site visit and report showed that there were different layouts across the flats, with some having a different bathroom configuration to the others within the building which meant creating a separate set of drawings. This made the project particularly tricky, because from the third floor down to the basement a different layout was needed for the drainage system to the rest of the building, while adaptation work was needed to the pipework which included designing soil stacks with very tight waste connections set at angles, often tightly spaced above each other."

"Furthermore, floor three needed a vent pipe for pressure compensation to the main 160mm diameter soil stack which had to be custom engineered, together with the additional piping connections needed on the lower floors. This was because in some cases there was only 0.75mm between some of the fittings needed for waste connections for all the sinks, toilets, and low-level showers."

#### A more efficient solution

The complexities presented by the building meant that a solution that would minimise the time needed on site to adapt standard stack pipes and fittings would be best. Polypipe's Terrain FUZE drainage system was chosen because it has been used in more than 300 high-rise buildings and means minimal disruption to residents as sections can be replaced section by section and floor by floor. Crucially, using Polypipe's Advantage service meant that the drainage system could be fabricated offsite in the unique configuration needed and delivered to fit straight into Henniker Point.

Ciaran O'Donnell, contracts manager at Mulalley said: "Drainage stack replacement is notorious for being a complex and disruptive job, so we look for ways to ensure clients receive a quality product but with minimal time on site when residents can't use toilets, sinks and the like."

"We have worked with Polypipe Building Services for some time, and value both the expertise they offer in finding the right solution for specific project challenges, and the efficiency savings we can make by using their Advantage service to produce prefabricated stacks that are easier to fit on site."

"In the case of Henniker Point, Polypipe's team was a great help in making sure we could plan for the unique layout of the building. The ease of installation the Terrain FUZE system offered meant that our installation team were able to progress at a rate of two floors faster per day than originally estimated because they were not assembling loose materials onsite."

"This meant less time on site, less disruption for residents and a more efficient project schedule for the client."

#### CASE STUDY BREAKDOWN

**Project**  
Henniker Point, East London.

**Client**  
Mulalley.

**Application**  
Live Stack Replacement.

**Products**  
Terrain FUZE.

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# Polypipe Advantage

## MORE INNOVATION. MORE EXPERTISE. MORE SUPPORT.

We recognise this is not a fabricated product but our Polypipe Advantage Service is more than fabrication, it is a service that supports and offers design and technical support on your next project. Find out more about how Polypipe Advantage can help you get the results you want.

### PRODUCTS AND SYSTEMS

Our specialism is tall buildings, so our products, systems and services reflect that, in design, performance and ease of installation. Our Terrain brand of products and systems have been no exception, from our benchmark, FUZE drainage stacks and PVC soil and waste systems, to the Terrain Q noise reducing system, P.A.P.A.® & Pleura Vent Systems and Firetraps.

However, our continued investment in new technologies and more innovative solutions, enables us to increase our category portfolio, including supply applications like MecFlow. We are constantly working to bring to market only the most sustainable, beneficial, and cost-effective products and systems – engineered from the most practical, recycled and recyclable materials. Together with our Advantage Service, fabrication capabilities and customer support, you're never left without a solution – whatever the challenge. Contact our sales team to discover more at [buildingservices.technical@polypipe.com](mailto:buildingservices.technical@polypipe.com)

### TECHNICAL

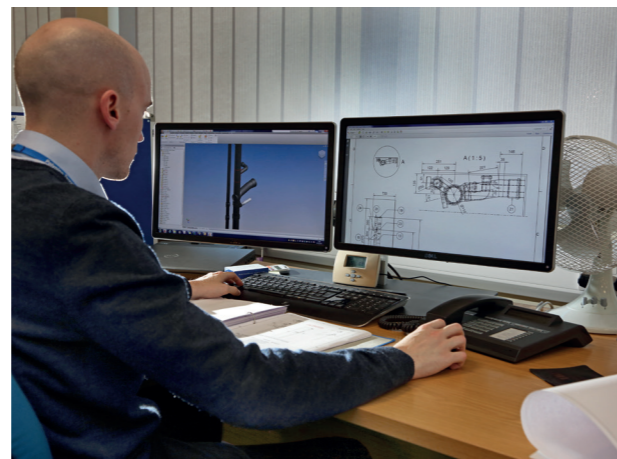
All our products and systems are backed by our hands-on technical team, providing expert support to ensure you receive a system that's right for your project. Whether it's a single component, or a fully fabricated system, you can call upon our specialist advice, and rely on us to deliver exactly what you need.

### MINIMAL DISRUPTION BECAUSE...

- Delivered to site ready for installation
- Quicker and easier to install
- Residents can stay in their homes during the process
- No temporary re-housing costs

### POLYPIPE ADVANTAGE SERVICE

We're constantly working and investing to discover new products and systems that take the complexities out of construction. And we apply that philosophy to ease of installation. Our Polypipe Advantage Service has been specifically introduced to make everything simple from beginning to end. From the design and planning of your project, to ordering, delivery, technical support, and customer service. Through Polypipe Advantage, our drainage stack systems and MecFlow supply systems can be fabricated to your own specification; created off-site, and delivered as a full, ready-to-install system on-site. Facilitating a faster installation process, whilst addressing skilled labour shortages and the lack of on-site storage facilities.



Welcome to Polypipe Building Services.  
Delivering more, to achieve more.

Visit: [polypipe.com/polypipeadvantage](http://polypipe.com/polypipeadvantage)  
Call us on 01622 795200

# Quality Assurance

## POLYPIPE BUILDING SERVICES QUALITY ASSURANCE.

It's not just what we do but also the way that we do it that makes Polypipe Building Services number one in the UK for plastic piping systems. Our award-winning history of innovation, having all the right approvals, accreditations and awards for quality standards are just the tip of the iceberg.

### AN AWARD-WINNING HISTORY OF INNOVATION AND EXPERTISE

Polypipe Building Service's success has led to many awards and recognitions such as Building Manufacturer of under the London 2012. Supplier Recognition Scheme, culminating in being awarded Top 100 Business Superbrand in 2013, 2014, 2015, 2016, 2017 and 2018. In 2021 Polypipe Building Services was awarded Innovation of the year from the CN awards for MecFlow, our water supply system.

### PRODUCT APPROVALS

Polypipe products are manufactured to the highest quality standards and carry all relevant third-party product approvals and accreditations from the major recognised bodies.

### QUALITY STANDARDS

Polypipe Building Services operates to the highest quality standards and is accredited to the following Quality Management Systems:

- BS EN ISO 9001 – Quality Management System
- BS EN ISO 14001 – Environmental Management System
- BS ISO 45001 – Occupational Health & Safety Management System
- PAS 99 – Integrated Management Registration
- BS ISO 56002 – Innovation Management System

### STANDARDS COMPLIANCE AND CERTIFICATIONS

#### Terrain FUZE, HDPE Soil and Waste

Pipes and Electrofusion Couplings are manufactured in accordance with BS EN 1519 Standard and is covered by British Board of Agreement certificate 07/4479 and Kitemark certificate KM 729217.

### TERRAIN SOIL AND WASTE

Terrain Soil and Waste systems are manufactured in accordance with the appropriate British and European Standards and, where applicable, bear a kitemark (KM).

- PVCu Soil systems – 82, 110 and 160mm Soil Pipes and Fittings
- BS 4514 (KM 05252) and BS EN 1329 – 1 (KM 57744)
- PVCu Waste Systems – 32, 40 and 50mm Waste Pipes and Fittings
- BS EN 1566 (KM 88038) and BS 5255 (KM 06413)

### TERRAIN P.A.P.A.

- British Board of Agreement certificate 18/5551
- Air Admittance Valve
- BS EN 12380 (KM 554663)

### FIRETRAP COLLAR AND FIRETRAP SLEEVES

Firetrap Collars hold a European Technical Assessment

- (ETA-20/1151).
- Fire collars comply to standards BS EN 13501-1 & 13501-2. Fire sleeves comply to standards BS EN 1363-1 & 1366-3. Please refer to the relevant product pages for detail regarding product Kitemarks.

For copies of certificates please visit [www.polypipe.com/commercial-building-services](http://www.polypipe.com/commercial-building-services)



## Professional Development Centre

As the UK's largest plastic piping manufacturer, we are committed to investing in the ongoing development of industry professionals. That's why we offer quality training on Polypipe products and systems at our purpose-built facility.



Located at our Aylesford site in Kent, we created the Professional Development Training Centre in response to Local Authority Building Control requirements – keeping Installers, Consultants, Housing Associations and Local Authorities up to date with current regulations, products and solutions.

Our centre showcases Terrain Drainage products and systems in situ, making it ideal for demonstrating products, teaching installation processes and testing joints.

As the only manufacturer to hold accreditation, all the materials used in our systems are ethically sourced and easily traceable through the supply chain.

### PRACTICAL TRAINING

Training courses include a practical element where you have the opportunity to learn through a hands-on experience guided by our experts.

- BSEN 752 Underground Drainage
- BSEN 056 Above Ground Drainage
- Accreditation for responsibly-sourced materials
- Materials used in the creation of the products
- Best practice installation for various products
- Testing and commissioning

### TECHNICAL TRAINING

As well as gaining practical skills, you can enhance your technical knowledge with the help of our technical support and guidance.

- The History of Drainage and Terrain Products
- Design and drainage
- Design and installation issues
- Testing of joints
- Technical guidance

### TECHNICAL FACILITIES

In addition to our innovative showroom, our Training Centre boasts an impressive hydraulic Drainage Tower designed to show our Terrain Products in action as a complete system, showing good and bad practice in drainage. We also use a 3D printer and transparent pipework to illustrate water-flowing clearly.

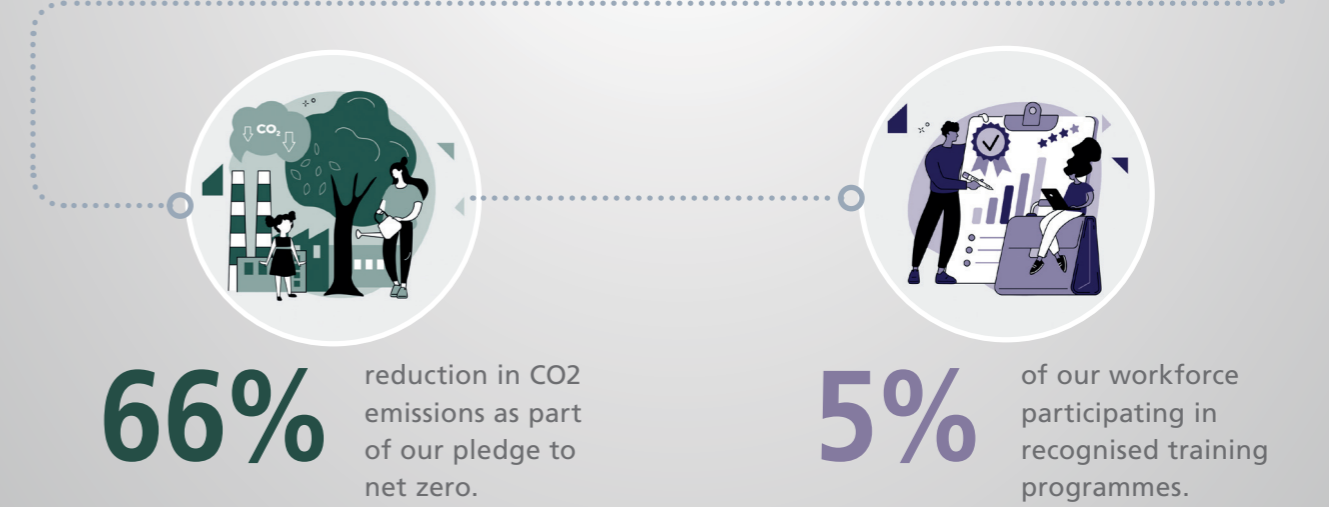
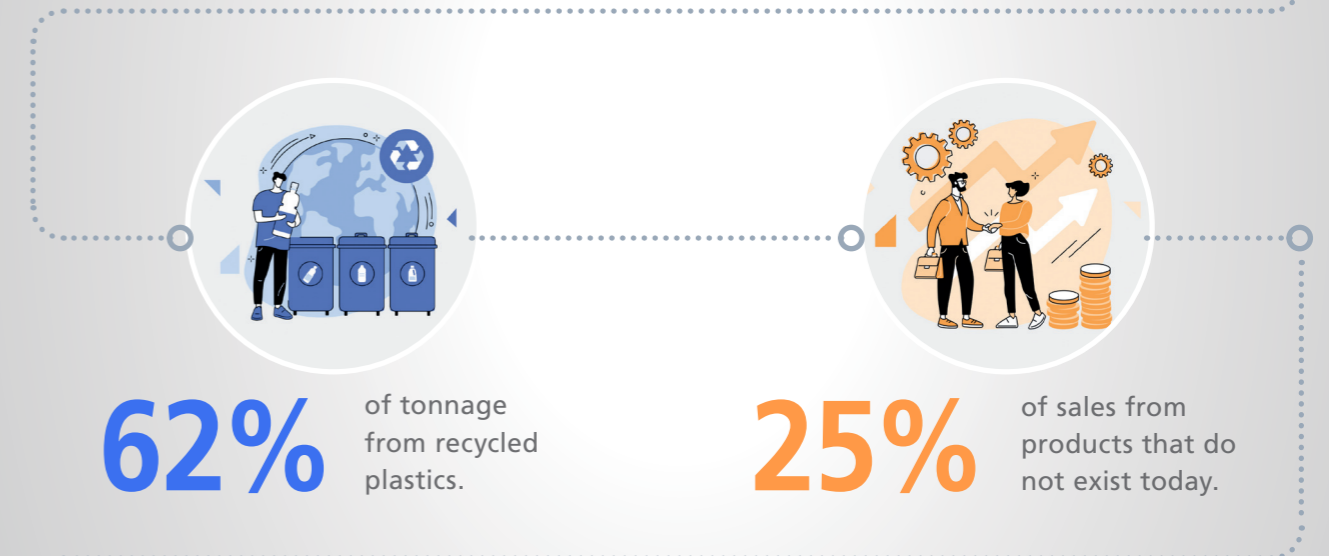
We also have seminar facilities for technical guidance to explain the materials used in the creation of our BES 6001 accredited products and what projects they are best suited to.

To organise a training session at our Centre of Excellence, please contact [commercialequiries@polypipe.com](mailto:commercialequiries@polypipe.com)

## Genuit Sustainability

### 2025 Targets

We're raising the bar on sustainability. We're holding ourselves accountable by setting a clear strategy and measuring progress against ambitious targets.





# The Genuit Group

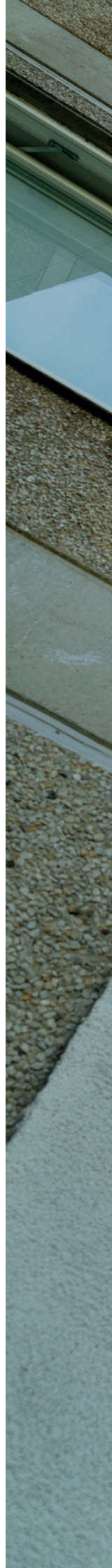
At Genuit Group we help create a better built environment, by developing and producing sustainable solutions to the key challenges faced in water, climate and ventilation management. Sustainability is core to our commercial strategy, driving innovation in both how we run our business and the products we create. We find solutions for the environmental challenges facing our infrastructure, our buildings and our communities, and delivering these at scale.

The Genuit Group of businesses are recognised as professionals and experts in their given markets. From commercial and residential applications, heating and ventilation, fabrications, roads and highways to plumbing, large scale water storage and drainage, tall building applications and green infrastructure solutions. Our goal is to be the leading, UK-focused, sustainable products Group – helping construction build better.

Together, we aim to provide solutions to the sustainability and construction challenges of today and in the future. The increased need for resilient drainage systems, for example, the need for important Green Urbanisation, for cleaner, healthier air, for simpler, faster and more cost-effective drainage installations, for innovative future-ready systems and for low/zero-carbon heating and low-carbon construction.







## Polypipe Building Services

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