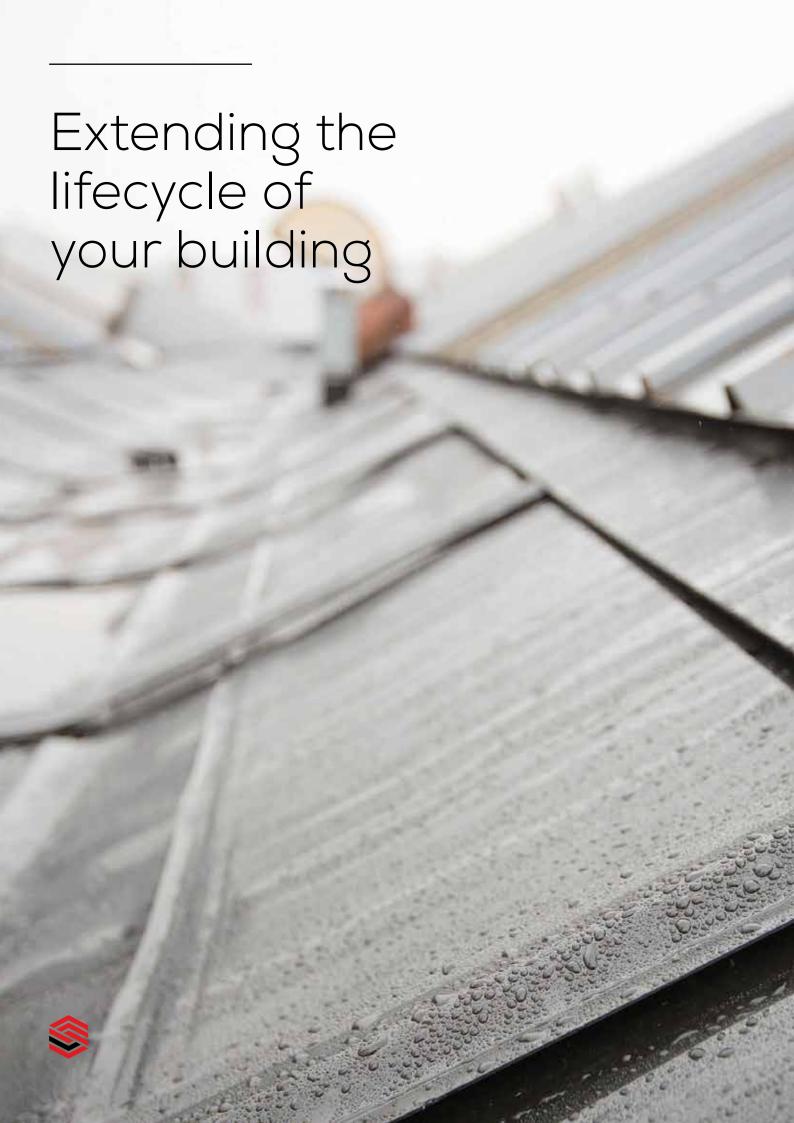








sharmans plygene® gutterline





04.

We are the gutter lining experts

The only BBA certified and 25 year guaranteed gutter lining system.

12.

The system

A totally unique, permanent solution that stops leaks for good.

<u>28.</u>

Specifiers

Plygene Gutterline is the market leading choice with over one million metres installed in the last 5 years. 34.

Contractors

Working in partnership with our Trained Contractor Network.

<u>40.</u>

Here to help

We fully support you throughout the whole process, from site survey to manufacture and specification generation through to installation and guarantee.





hdsharman.co.uk

Here to help: 01298 812371 Email us: info@hdsharman.co.uk

We are the gutter lining experts



We are the specialist manufacturer of the market leading Plygene® Gutterline system for gutter refurbishment in the industrial and commercial sectors.



For over 30 years, Plygene Gutterline has been the gutter refurbishment system of choice for specifiers and contractors in the commercial and industrial sectors.

During this time, the product range has continuously evolved with the support of industry experts into the BBA accredited, 25 year guaranteed, market leading system that it is today.

Specifically engineered for the gutter environment, Plygene Gutterline provides complete peace of mind for specifiers, contractors and building managers who need to stop leaks for good.

With over one million metres of system liner and 500,000 system components installed in the last 5 years across 10,000 completed projects, Plygene Gutterline's proven pedigree is second to none.

Building management

Gutters are a key feature of the roof environment.

Protecting your building

Leaking gutters are a common cause of disruption and damage that if left unchecked result in progressive long term deterioration to the building:

- Contents
- · Operations
- Envelope
- Foundations

A common cause of leaks in gutters is structural movement that causes the gutter joints to open. This same movement can also lead to the crazing and eventual breakdown of bonded membrane gutter liners.

Both of these conditions are caused by ongoing seasonal cycles of thermal expansion and contraction exacerbated by the freeze-thaw effect.

Specifically to address this common problem, Sharmans have designed a unique, seamless, non-bonded "gutter within a gutter" system, the performance of which is unimpaired by thermal movement in the gutter substrate material.







Roof drainage design and gutter outlet capacities are calculated against a range of criteria.

These include the geographical rainfall intensity and the building's effective roof area. Well designed and performing gutters are essential to direct the flow of rainwater away from the building, preventing damage to both the envelope and its interior.

Plygene® gutter lining system





"10,000 commercial properties have benefited from installation of the Plygene® Gutterline system in the last 5 years incorporating over one million metres of liner and more than 100,000 outlets."

In contrast to competitors' general roofing products, Plygene Gutterline is the only BBA approved gutter lining system specifically engineered to restore and preserve gutter performance.

Through ongoing product development, the system has been designed to meet the challenges of gutter environments whatever their configuration and complexity and to provide a 25 year guaranteed end to leaks and the damage they cause.

10 reasons to choose Plygene® Gutterline

01.

It's totally unique

Our totally unique market leading system is made from Plygene which gives it its high performance capabilities, including resistance to mechanical damage, high durability and weathertightness.

Plygene is an incredibly strong thermoplastic blend engineered specifically for the gutter environment and is designed to withstand foot traffic associated with general access, cleaning and ongoing maintenance. It is UV resistant so it doesn't break down in sunlight and it retains its performance integrity for the full lifecycle. Moreover, Plygene's molecular structure is elastomeric allowing it to contract and expand to suit all environmental conditions without impacting the performance or structural integrity of the gutter.

02.

Maintain or improve rainwater drainage performance

Plygene Gutterline's unique design configuration eliminates the need for any sole board or system build up and ensures that original rainwater flow rates for the building are either maximised or in some design instances are actually improved.

03.

Non-bonded for expansion and movement

The gutter lining is non-bonded and therefore able to independently flex within the gutter. This means that as the gutter itself flexes as a result of thermal movement, the integrity of the gutter lining is not compromised and will not craze and crack like liquid or membrane bonded systems. Hence performance integrity is fully designed into the product lifecycle.

04.

Seamless and continuous

Plygene Gutterline is specifically engineered to be seamless and non-bonded in design. Being seamless means the risk of failure at joints is minimised whilst non-bonded means it expands and contracts independently of the gutter substrate so will not craze and crack like bonded systems.

05

Totally versatile and flexible

There is nothing else like it or comparable on the market; it is a totally flexible gutter lining solution which can be configured to meet the demands of most gutter profiles irrespective of their material construction. Bespoke moulded drainage outlets and network components ensure that the system provides full design flexibility to meet the challenges of even the most challenging gutter configurations.



"Minimised environmental impact as Sharmans operates a near zero waste manufacturing process."

06.

Installation versatility

The system can be installed in damp and light rain conditions, unlike other products such as liquids which are rain or temperature dependent. It can be installed if the weather is damp, wet or below 5°C and therefore provides contractors and clients with greater periods throughout the year to install and refurbish gutters.

07.

A cost effective and less disruptive alternative to gutter replacement

By providing a 25 year guaranteed, BBA approved, "gutter within a gutter" system, Plygene Gutterline offers a cost effective alternative to full gutter replacement.

08.

Designed to minimise labour time

Our system has been designed to minimise site preparation time in comparison with competitors' liquid or jointed membrane products. It is non-bonded which means the gutter does not have to be extensively cleaned prior to fitting, and the off-site manufacture of bespoke moulded drainage and network components also removes the need for laborious and detailed on-site fabrication. Reduced site complexity also means there is less to go wrong and removes the problems and disruption associated with unnecessary re-works.

09.

Kind on the environment

We have one of the most environmentally friendly systems on the market. There is virtually no waste in manufacturing, it is 100% recyclable and there are no adhesives or solvents in the system design.

10.

Minimal building disruption

By designing the system to fit the specific profile of the existing gutter and minimising site time and installation complexity, building disruption is minimised for the end user client.

The system



<u>14.</u>	<u>20.</u>
Introduction	Drainage
<u>16.</u>	<u>22.</u>
Liner	Network components
10	2/

Performance

Fixing

An introduction to our system

Designed to meet the many challenges of the commercial gutter environment, Plygene® Gutterline's bespoke design allows it to be installed in all commercial gutter networks whatever the width, length or complexity.

The system is designed from four key design elements which are:

- 01. The thermoplastic liner
- 02. The specified fixings (fasteners, flashings, cappings, stop ends and wind uplift restraints)
- 03. Drainage components (standard outlets, bespoke moulded outlets, syphonic kits and leaf guards)
- 04. Network components (bespoke moulded T-junctions, corners, weirs, sumps, side boxes, side chutes, etc.)

Each of these elements form an integral part of the design and are required for the system guarantee.









Installed by Sharman's network of registered Trained Contractors, all project works are inspected and certified to exacting quality standards.

01. Liner

A thermoplastic, durable, hard-wearing and flexible liner that is bespoke creased to the profile of the existing gutter.

The liner is manufactured from a non-pvc based thermoplastic blend; precision extruded to exacting quality standards; manufactured to an industry leading nominal 1.5mm thickness and independently tested and certified for full UV resistance. Supplied on seamless, joint-free rolls in bespoke lengths, there is no need for any adhesives or mastics. The liner is creased longitudinally using machine tooling to match the existing gutter dimensions and to optimise the original rainwater drainage design calculations.

Its molecular chemistry provides a membrane that is weathertight, resistant to mechanical damage, durable and flexible. It can be used in all commercial gutter profiles and substrates including steel, other metals, concrete, asbestos or timber.

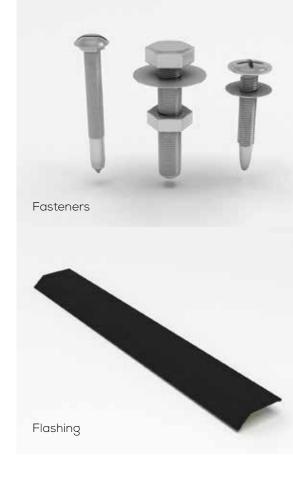
Its non-bonded "gutter within a gutter" design fully caters for thermal movement in the gutter substrate and for the freeze-thaw effect which is a cause of cracking and splitting commonly associated with liquid and membrane bonded systems. Equally, there are no joints which are a common area of failure and leaks.







02. Fixing



01.

Fasteners

All fastenings are supplied in specified packs as an integral element of the system guarantee. They are manufactured to design specifications for the various gutter substrates whether steel, other metal, concrete, asbestos or timber.

02.

Flashings

A complete range of flashings, manufactured from plastic coated steel with a nominal gauge of 0.7mm are available to suit all gutter profiles. Where practical to use, the flashings feature industry best practice welted edges to extend performance longevity and improve safe handling. Galvanised angle is specified at a nominal gauge of 0.7mm and equally benefits from the option of welted edges.





03.

Boundary and open-ended sealing kits

Plygene Gutterline sealing kits provide a watertight seal between the liner and the existing gutter at boundaries and open-ended gutter junctions. The liner is trapped between compressed layers of elastomeric bitumen covered with a Plastisol coated steel strip. The steel strip is then drilled and fixed into the gutter using the substrate specified fastenings pack and the entire assembly is hot air warmed to create a waterproof seal.

04.

Wind uplift restraints

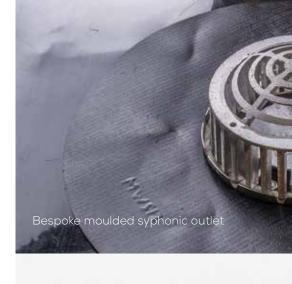
Plygene covered metal wind uplift restraints are designed to provide resistance to wind uplift and are fitted in exposed gutters. They are factory cranked to match the existing profile of the gutter and positioned at centres between 1 and 3 metres in line with the specification requirement. The straps are positioned over the liner and either trapped and secured under the roof sheets or mechanically twin pinned.

05.

Stop ends

If the gutter is fully stopped off, a stop end set is used to permanently secure the liner. These can be either standard high density stop ends site cut to the profile of the gutter, or bespoke moulded stop ends designed to incorporate variation in complexity such as the inclusion of a weir overflow.

03. Drainage



Bespoke moulded gravity outlet

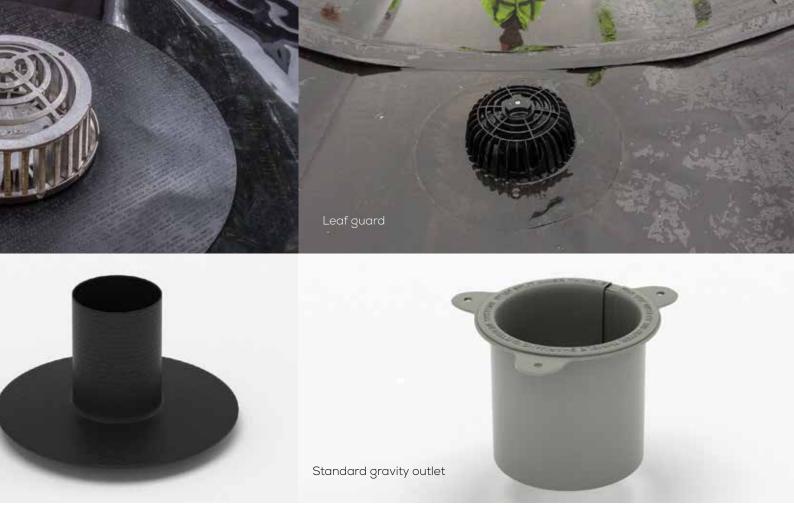
There are numerous types, shapes and sizes of outlets for rainwater drainage systems. Sharman's Plygene® Gutterline range supports them all with its unique combination of standard and bespoke moulded designs to match the existing profile requirements.

01.

Bespoke moulded outlets

Bespoke vacuum formed moulded outlets are manufactured to site specific dimensions to precisely replicate the profile of all sole, part sole and full side outlets. These outlets are then hot air welded to the liner using a minimum 50mm flange to ensure a permanent watertight seal.





02.

Standard outlets

Outer thimbles are fixed into the downpipe at the preparation stage. Once the liner has been rolled out, the outlets are fitted in the liner using Sharman's proprietary hole cutting tool to prevent any stressing of the Plygene. The area around the hole is warmed and the inner thimble firmly inserted, trapping the liner against the outer thimbles and creating a waterproof seal at the downpipe. The design of the inner thimble allows for a split to accommodate the thickness of the liner.

03.

Syphonic outlets

Bespoke moulded integration kits are available to match the different specifications of the most popular makes of syphonic outlets which are a common design feature of commercial gutters. These bespoke moulded kits are designed to match the profile of the common system including Sapoflow, Fuliflow, Aquaphonix, AeroMekano, Geberit Pluvia and Dallmer.

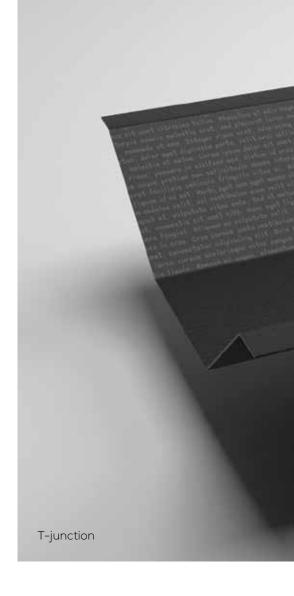
04.

Leaf guards

BS EN 12056 - 3:2000 does not specifically refer to the problem of foliage in areas with nearby trees or bird droppings in inner city or coastal environments. However, the standard does make reference to accommodating limited deposition in the overall design flow calculation. Hence, as part of industry best practice to optimise drainage performance, leaf guards are provided on all Plygene Gutterline system specifications with sole outlets between 70mm and 200mm in diameter.

04. Network components

The system offers a full suite of factory formed bespoke moulded network components to ensure guaranteed waterproofing in all potentially problematic areas of complexity.



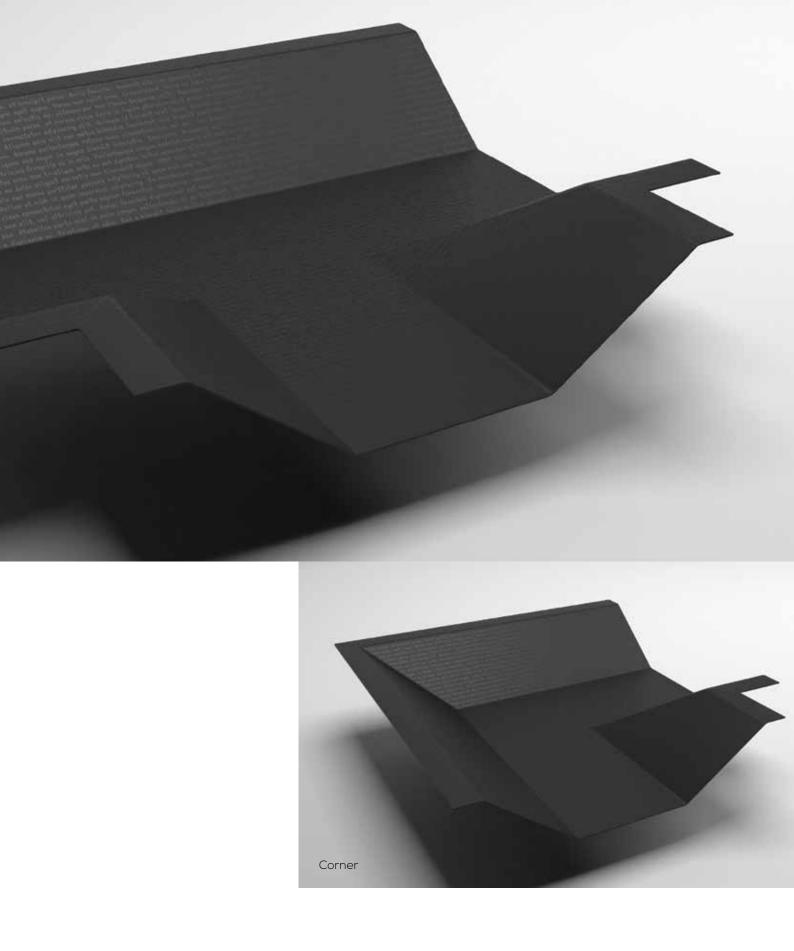
Bespoke moulds are available to fit all areas of complexity, including non-standard outlets, corners, T-junctions, overflows, weirs, vortex outlets, sumps, side boxes and side chutes.

Hence, on-site labour complexity which is often a cause of future leaks is designed out and replaced with factory precision manufacturing.

Each mould is manufactured from a 3mm thick thermoplastic polymer that is then fully bonded to the liner by hot air welding to ensure a lifetime seal.

"From a practical point of view the real advantage of the Plygene® Gutterline system is that it works with any gutter profile, on any substrate, on any type of commercial building and it doesn't require any change to the original structure."





There is nothing else comparable on the market!

Plygene® Gutterline is the only independently tested commercial gutter lining system on the market to have BBA accreditation and a 25 year guarantee.

This highly durable system fully protects the building fabric and contents by preventing leaks for good.

Quality is assured at every stage of the process through extensive product testing, precision controlled manufacturing, rigorous contractor training and on-site installation via our Trained Contractor Network.

Quite simply, Plygene Gutterline is the best commercial gutter lining system on the market.







Technical support: Survey, specification, installation audit and inspection

The Sharman's Technical Support team comprises a national network of Technical Services Managers and a dedicated head office technical helpline to provide guidance and support to specifiers and contractors.

The team has in depth product knowledge combined with a wealth of practical hands-on experience to offer advice and support at all stages, from initial site survey through to specification generation and on-site installation audit and inspection.

Our full service Project Flow support for specifiers/building managers and major projects includes:

- Full site surveys
- · Condition reports
- · Bespoke project specifications
- Selection of Trained Contractor installers
- · Site inspection and audit
- Guarantee and BBA accreditation

Installation is through our registered Trained Contractor Network. Trained Contractors are inducted in our training school as fully authorised installers of the Plygene Gutterline system. All installations are certified and/or audited by our Technical Services Managers prior to project sign off and release of the 25 year guarantee.







Specifiers



30.	32.

Introduction Working with you, the specifier

Introduction

Whether you are a building surveyor, architect, building owner or facilities manager, the Plygene® Gutterline system is the market leading choice for all specifiers.

Non-bonded and seamless in design, the Plygene Gutterline system is specifically engineered to eradicate the common areas of leaks traditionally associated with joints opening and membranes cracking. Designed as a "gutter within a gutter", it fully accommodates thermal movement and associated stress loads in the gutter substrate to ensure 25 year guaranteed performance.

Manufactured to exacting tolerances to match the profile of the existing gutter, the system design maximises the building's original rainwater drainage flow calculations and in some design configurations improves it.

The thermoplastic liner is factory creased to the gutter dimensions and the bespoke moulded, vacuum formed, gravity outlets, stop ends, corners and T-junctions eradicate labour complexity.

Versatile through 30 years of manufacturing knowledge linked to site based experience, the system is suitable for all types of gutter complexity, profiles and substrates whether steel, other metals, concrete, asbestos or timber.

With over one million metres installed in the last five years, its proven track performance is second to none.





31. Specifiers

Working with you, the specifier

With a commitment to deliver industry leading customer service, we support specifiers at every stage of the process.

Technical specification support

We provide dedicated technical support for specifiers, access to technical libraries, including NBS and standard specifications, CPDs and comprehensive system training/demonstration programmes for specifiers.

Quality assured through our Trained Contractor Network

Rigorous contractor training, supported by a programme of site inspections and audits of our registered Trained Contractor

Network ensures full quality control at the point of installation.

We are here to support you

From dedicated technical support to CPDs. We understand the challenges faced in the gutter environment and how we can help you to specify the right system. We are always at the end of a phone to talk through your specific needs.





Making your Project Flow

We offer a full service delivery mechanism called Project Flow to support you at every stage of the process. From site survey, condition reporting, specification design, right through to installation by our Trained Contractor Network and audit and inspection regimes by our Technical Services Managers, quality is assured for all project stakeholders.

30 years of ongoing system development working in partnership with installers and associated industry experts have combined to make Plygene Gutterline the marketing leading choice for specifiers.

33. Specifiers

Contractors



<u>36.</u> <u>38.</u>

Introduction Supporting our contractors

Introduction

The Plygene® Gutterline system is purpose engineered to minimise site disruption, speed up installation, eradicate costly call backs and stop leaks for good.



"Market leading response times, typically less than 1 week from order placement."



Supplied on rolls, the liner is seamless and non-bonded in design to accommodate thermal movement and eliminate leaks typically caused by joint movement and stress fractures within traditionally bonded systems.

Bespoke moulded, vacuum formed, gravity outlets, stop ends, corners and T-junctions are engineered to provide a complete "gutter within a gutter" and the system also includes syphonic outlet kits.

Specified fixings packs are supplied as an integral part of the system for all gutter substrate types whether steel, other metal, concrete, asbestos or timber.

Our national network of Technical Services Managers and technical support helpline provides full support from initial survey through to installation and guarantee authorisation.

We provide a suite of sales support tools including samples, specifications, marketing materials and training programmes.

37. Contractors

Supporting our contractors

Our dedicated support teams work in design partnership with you and our manufacturing operation provides rapid support and response to your varying programme needs.

We provide full training support at our Training Centre

The contractor training programme provides extensive installer training on all aspects of the system, from initial site survey requirements, to gutter preparation, roll out and fixing of the liner, through to installation of both the drainage outlets and network components. Hands-on practical training is blended with traditional and digital support materials.

The contractor training programme includes:

- An introduction to Sharmans, its full support services and the Plygene Gutterline system
- Practical demonstrations and fixing/hot air welding sessions using bespoke designed training rigs
- · Surveying guidelines
- A comprehensive System
 Guide and the Golden Rules
 for installation
- Online video installation footage of all key system components
- Online technical data sheets and specified fixing types for all gutter substrate materials

 The system audit, certification and guarantee authorisation request process.

Successful completion of the course leads to the award of Trained Contractor status as a Sharman's registered contractor.







We provide installation support for major projects

In addition, on major projects, our network of regional Technical Services Managers provide full Project Flow service support including the initial survey, condition/dilapidation reporting, specification advice and installation audit and project sign off prior to release of the 25 year guarantee.

Logistics and manufacturing support

Our Manufacturing and Logistics team is focused on minimising lead times and keeping contractors fully updated on all aspects of delivery to avoid any programme disruption.

39. Contractors

Here to help

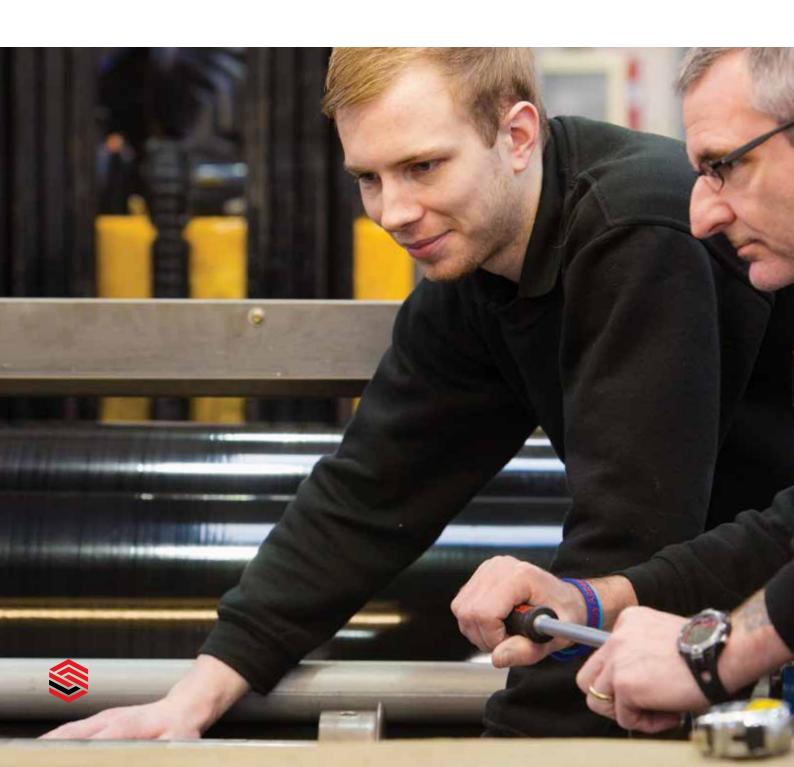


<u>42.</u> <u>44</u>

Sharmans the company

Manufacturing

Sharmans, the company



For over 30 years, Sharmans has built its reputation on providing engineered high performance systems.

Initially deploying its pioneering
Plygene range into the agricultural
sector, Sharmans then developed
its specialist Plygene Gutterline
system for the roofing industry at the
request of contractors who sought to
refurbish commercial and industrial
gutters with a solution that would
stop leaks for good.

During those 30 years, the business has continuously evolved and has worked alongside industry experts, specifiers and contractors alike to evolve the Plygene Gutterline range into the widely accepted and respected solution that it is today, for property owners and tenants who are looking for long term guaranteed solutions.

With a commitment to deliver industry leading customer service, the Sharman's team will guide and support you at every stage of the process.

43.





We are proud of our heritage as a specialist UK manufacturer with over 30 years of industry leading innovation.

Specialist UK manufacturers

We work hard to keep manufacturing lead times to a minimum and retain flexibility of delivery to meet your specific programme needs. As part of our service commitment, we keep customers updated throughout the manufacturing process to avoid unplanned surprises and resulting site disruption.

Quality control is designed into every stage of the manufacturing process, from the blending of the thermoplastic polymers through to the extrusion of the liner, the subsequent creasing of the liner and the vacuum forming of the custom moulded units.

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