

CPD

Why gutters fail and the options to repair, replace and refurbish:
A specifier's guide

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sharmans

gutter & roof refurbishment systems

Agenda

- Introduction
- Why gutters fail
- Decision to repair, replace or refurbish
- System comparisons
- Practical demonstration
- Technical reference and support
- Q&A and close



Introduction



Refurbishment



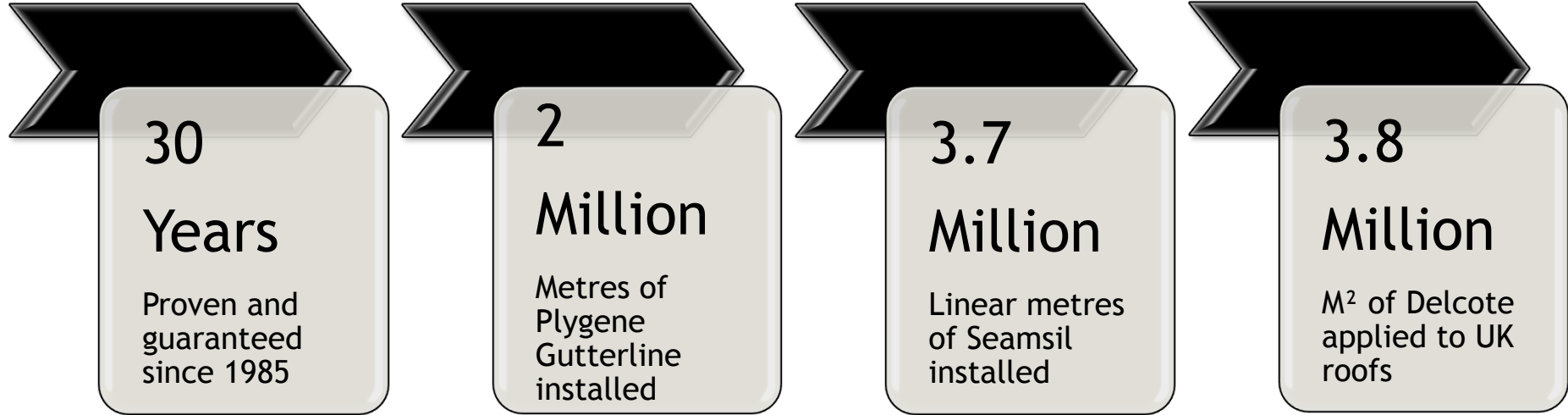
Pitched roofs



Commercial & industrial buildings



Established in both gutter and roof refurbishment



Why gutters fail



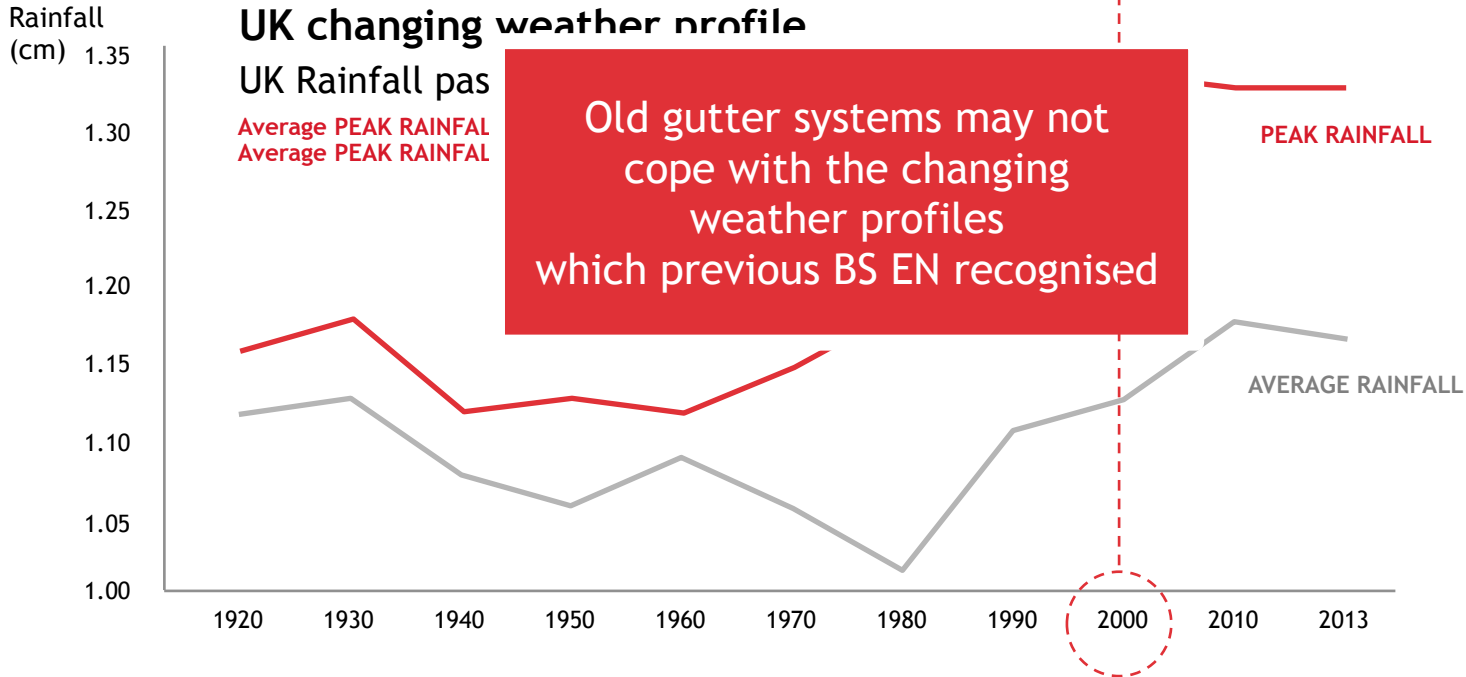
Why gutters fail

Weather



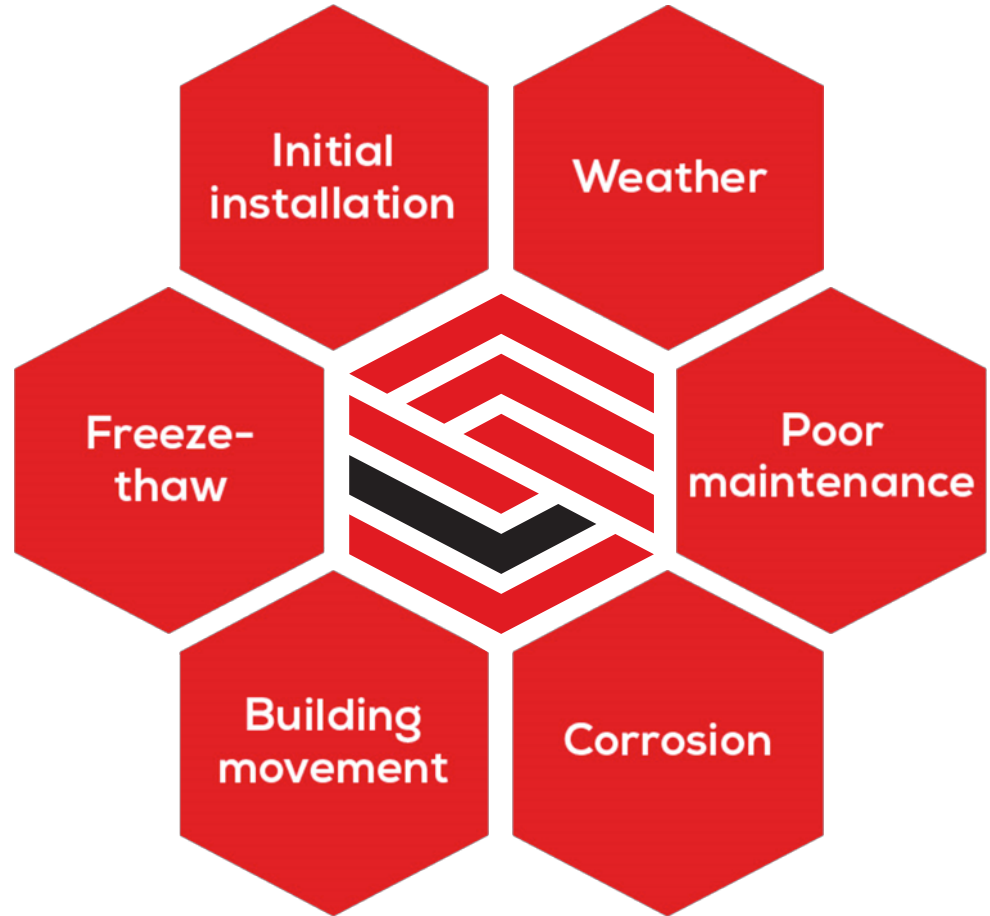
Weather

New BS EN 12056-3 : 2000 introduced



Why gutters fail

Poor
maintenance



Poor maintenance

Debris restricting water flow



Weather

Poor
maintenance

Corrosion

Building
movement

Freeze
-thaw

Initial
installation

Poor maintenance



Weather

Poor
maintenance

Corrosion

Building
movement

Freeze
-thaw

Initial
installation

Poor maintenance



Weather

Poor
maintenance

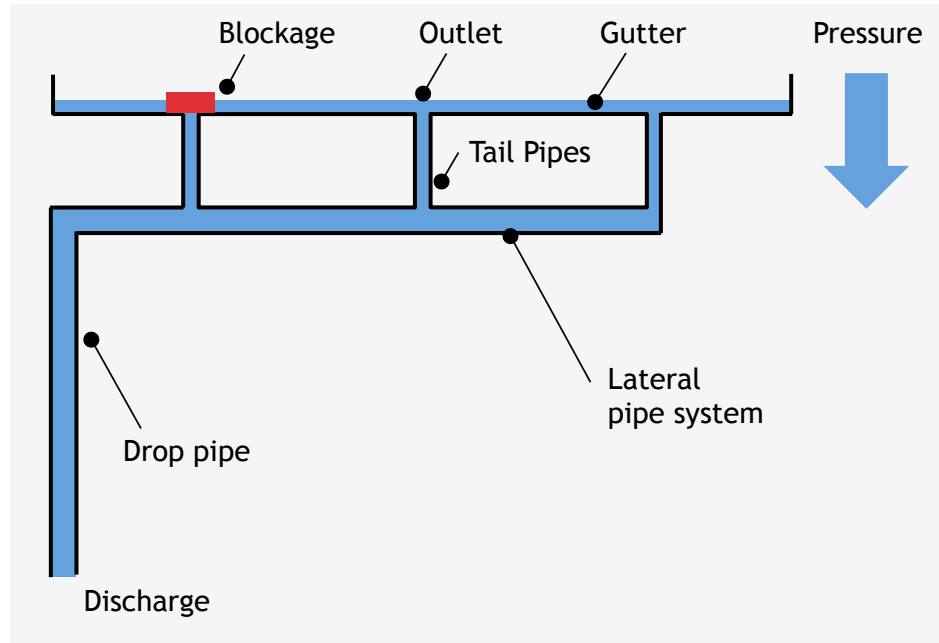
Corrosion

Building
movement

Freeze
-thaw

Initial
installation

Poor maintenance



- Weather
- Poor maintenance**
- Corrosion
- Building movement
- Freeze-thaw
- Initial installation

Poor maintenance



Weather

**Poor
maintenance**

Corrosion

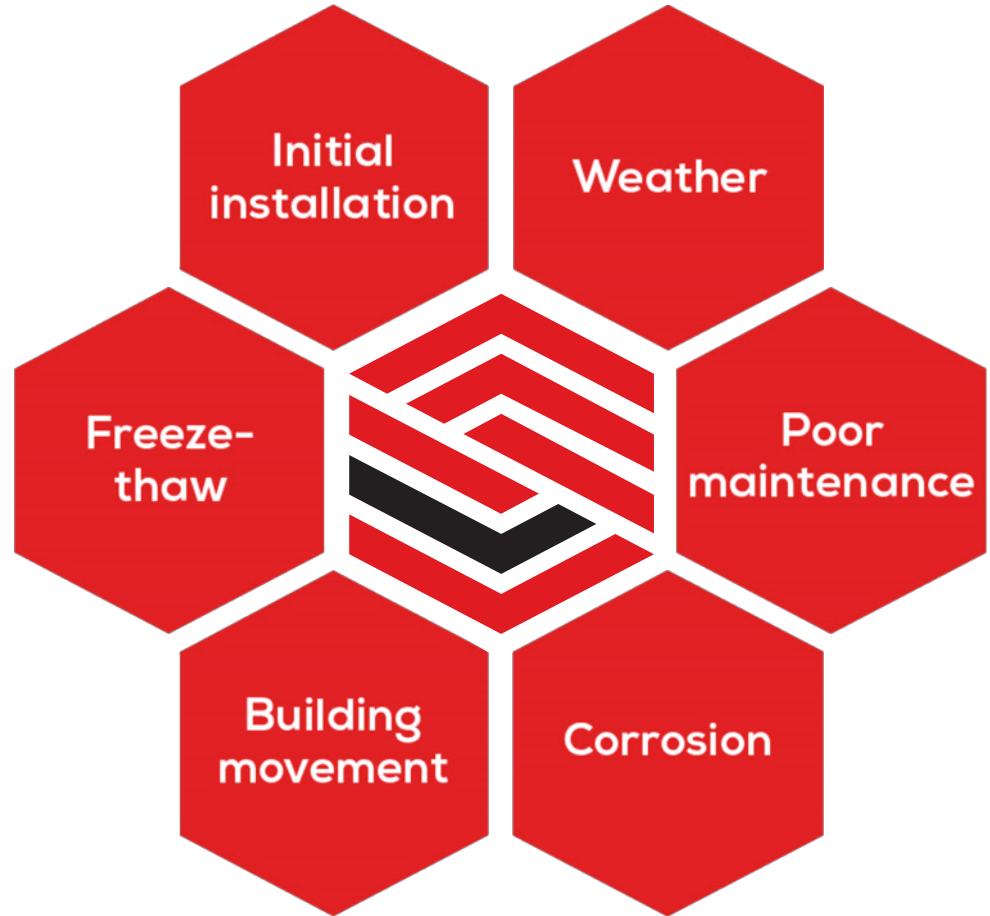
Building
movement

Freeze
-thaw

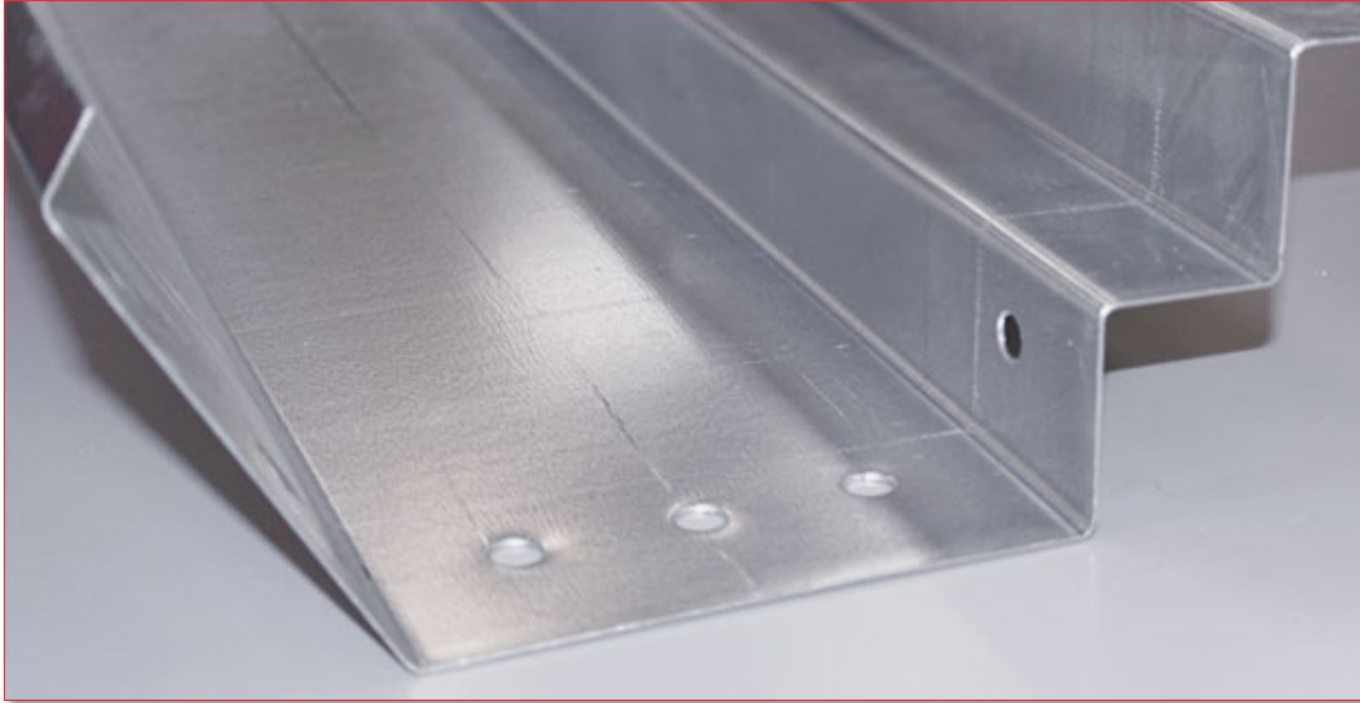
Initial
installation

Why gutters fail

Corrosion



Corrosion



Weather

Poor
maintenance

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Initial
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Weather

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Weather

Poor
maintenance

Corrosion

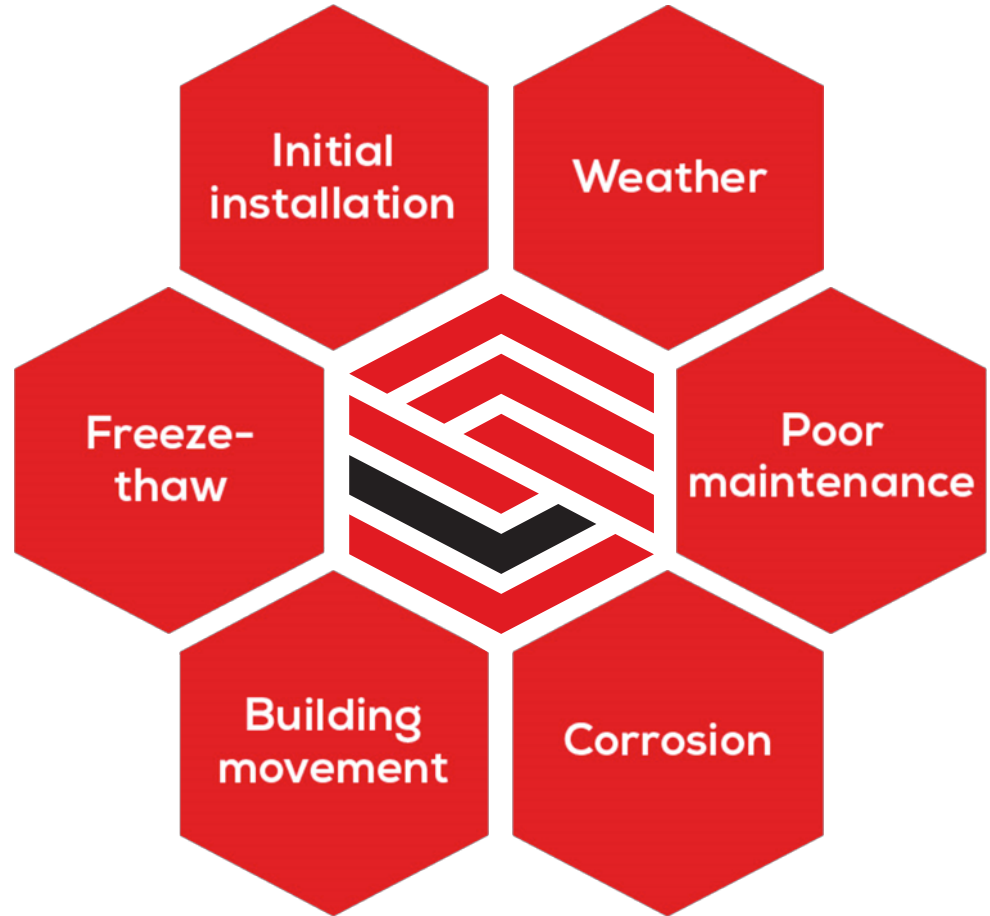
Building
movement

Freeze
-thaw

Initial
installation

Why gutters fail

Building
movement



Structural movement



- Settlement
- Lateral (Wind) loads + and -
- Service loads
- Accidental loads
- Variable (Snow) loads

Weather

Poor maintenance

Corrosion

Building movement

Freeze-thaw

Initial installation

Structural movement

Steel



Weather

Poor
maintenance

Corrosion

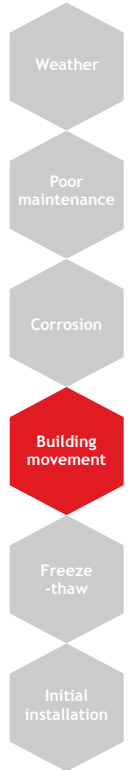
**Building
movement**

Freeze
-thaw

Initial
installation

Thermal movement

Material	α (m/°C/m)
Copper	1.7×10^{-5}
Steel	1.2×10^{-5}
Aluminium	2.3×10^{-5}
Brass	1.9×10^{-5}



Thermal movement



Weather

Poor
maintenance

Corrosion

**Building
movement**

Freeze
-thaw

Initial
installation

Structural/thermal

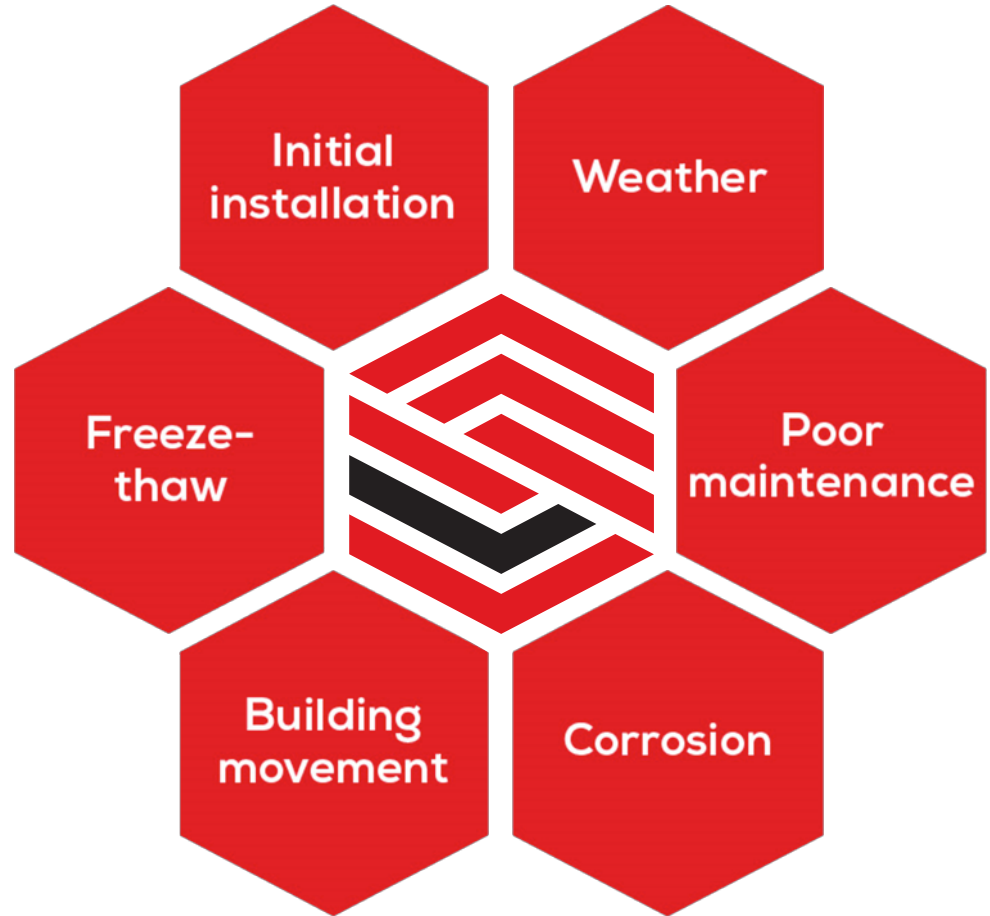
Repair



- Weather
- Poor maintenance
- Corrosion
- Building movement**
- Freeze-thaw
- Initial installation

Why gutters fail

Freeze-thaw



Freeze-thaw



Weather

Poor
maintenance

Corrosion

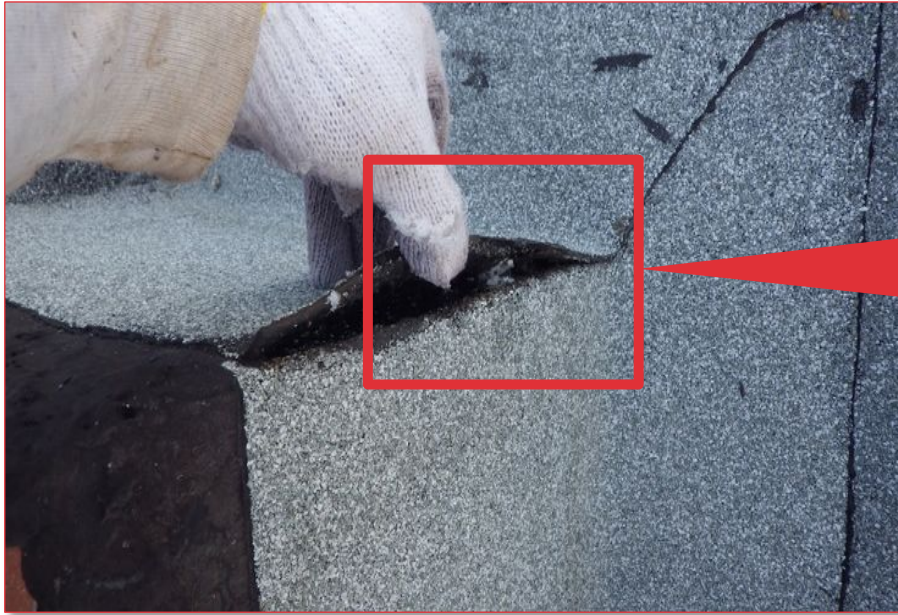
Building
movement

Freeze
-thaw

Initial
installation

Freeze-thaw

Site formed



ICE

Weather

Poor
maintenance

Corrosion

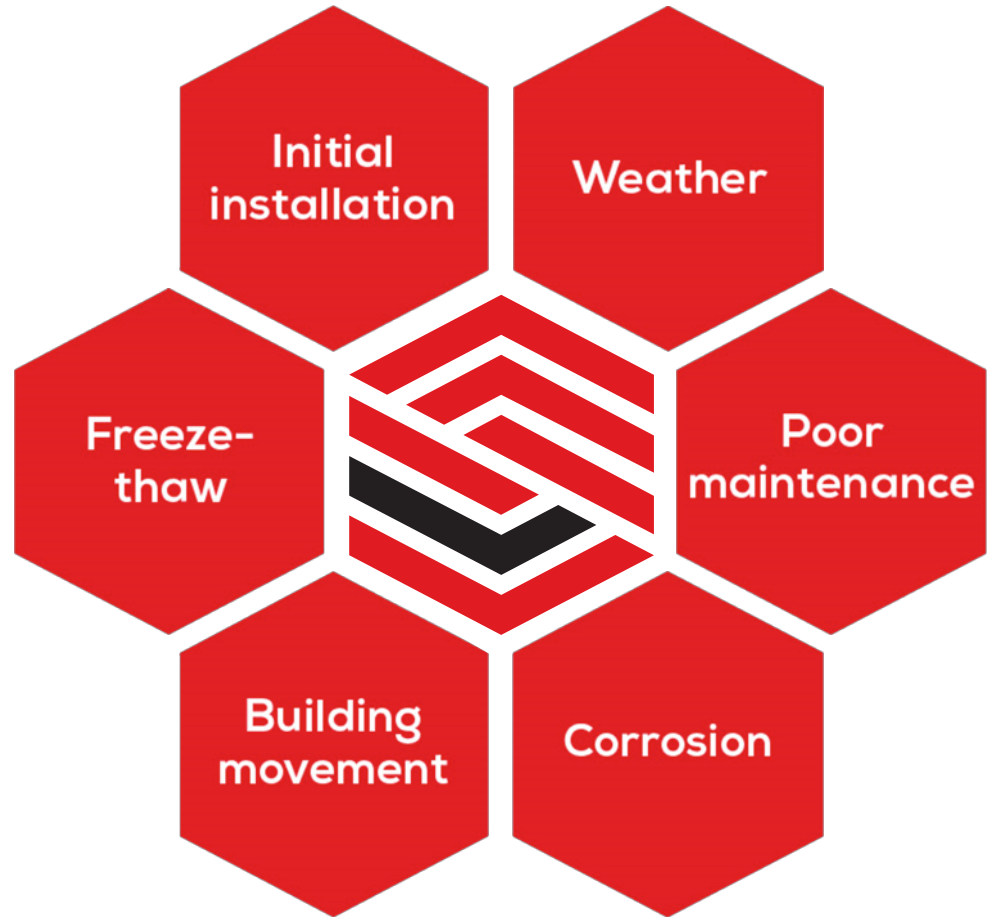
Building
movement

Freeze
-thaw

Initial
installation

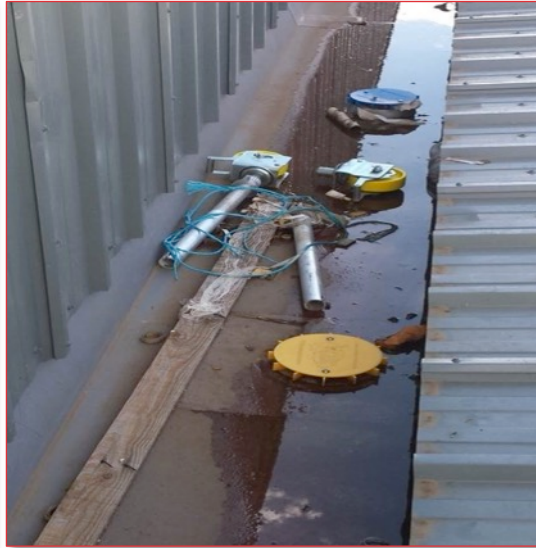
Why gutters fail

Initial
installation



Why gutters fail

Initial installation



Weather

Poor
maintenance

Corrosion

Building
movement

Freeze
-thaw

Initial
installation

Why gutters fail

Services



Weather

Poor
maintenance

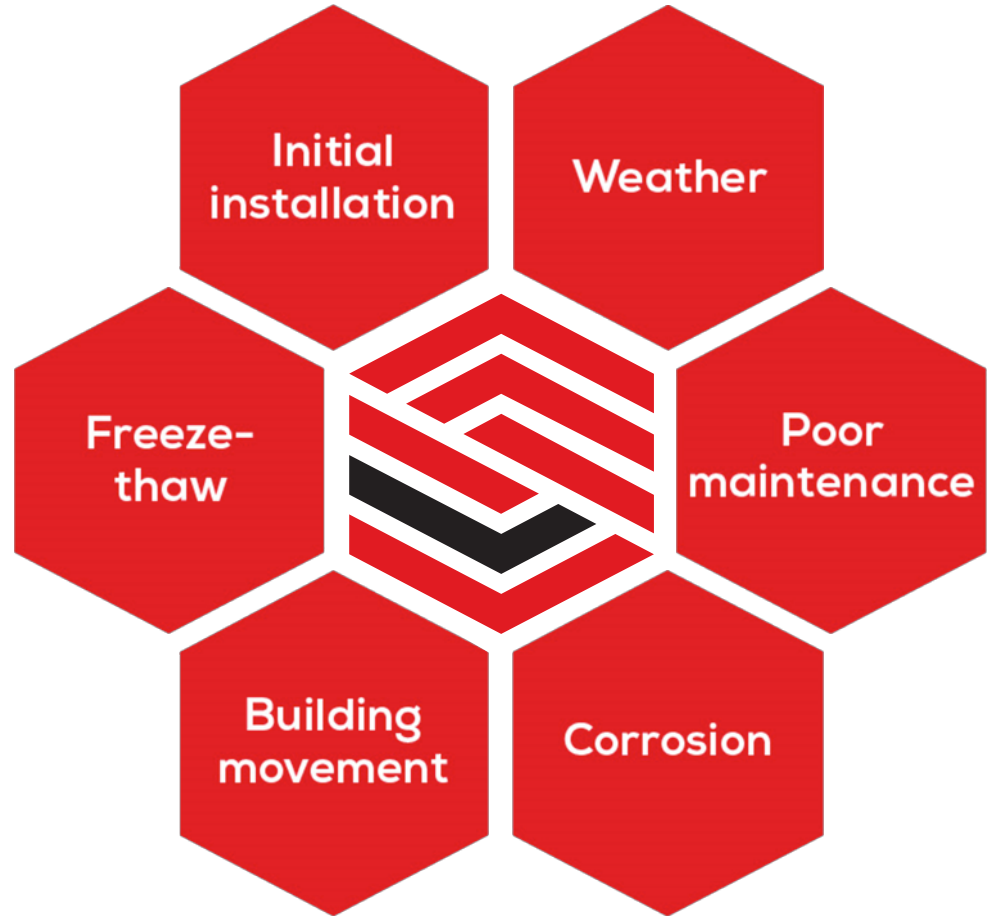
Corrosion

Building
movement

Freeze
-thaw

Initial
installation

Why gutters fail



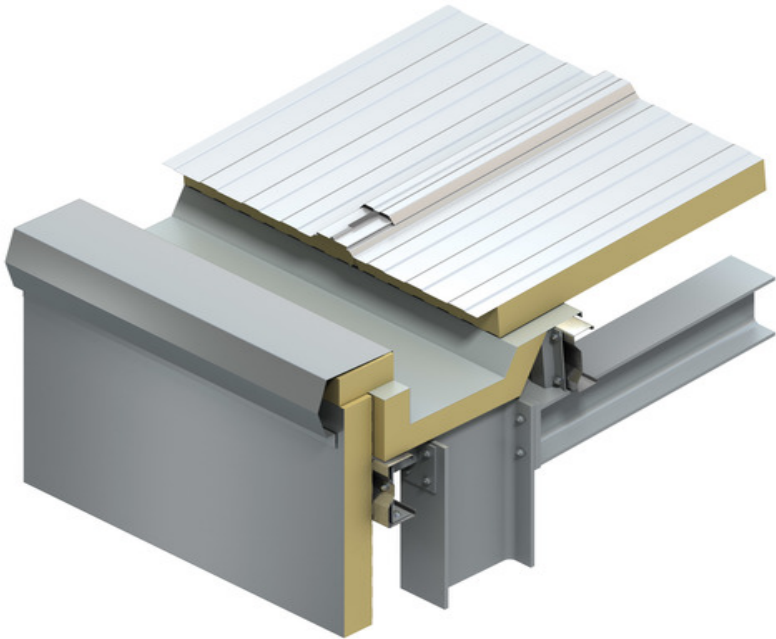
Repair, replace & refurbishment options

Repair



- Temporary
- Short term solution
- Limited Guarantee

Replace



- Integral to roofing system

Replace



- Roof removal
- Costs
- Extra health & safety
- Time
- Disruption

Refurbishment



- Minimal disruption to building
- Minimal disruption to owner / tenant
- Quicker

System comparisons



System comparisons

Applied liquids



Applied liquids

	BBA CERTIFIED FOR GUTTERS	SEAMLESS	SOLEBOARDS	FACTORY MADE COMPONENTS	SYPHONIC KITS	WEATHER DEPENDENT INSTALLATION	PRIMERS AND ADHESIVES
LIQUID MEMBRANE	NO ❌	YES ✔️	NO ✔️	NO ❌	NO ❌	YES ❌	YES ❌

Advantages



- They are seamless and installed to the full profile of the existing gutter
- Copes with intricate or complex shapes

Disadvantages



- Substrate has to be clean and dry so installation is totally weather dependent and labour intensive
- Cannot usually be applied over previously installed repairs or other **types of** systems
- Quality of workmanship needs to be of a very high standard
- Still subject to building stresses

Applied liquids

Bonded membranes

Fold out system

Loose lay system

Applied liquids



Applied liquids

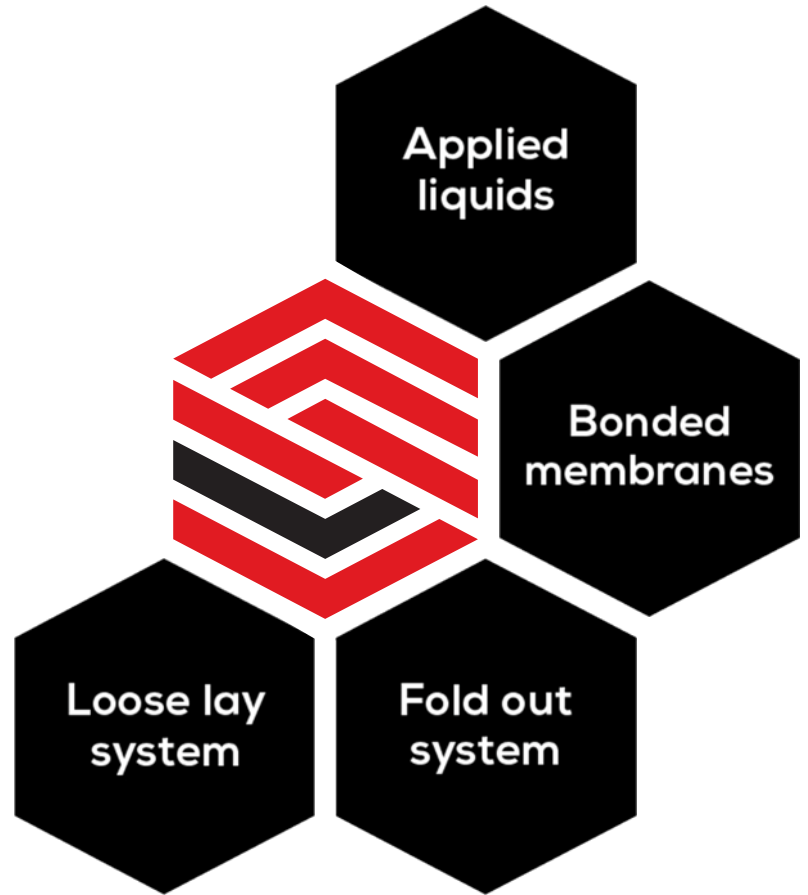
Bonded membranes

Fold out system

Loose lay system

System comparisons

Bonded membranes



Bonded membranes

	BBA CERTIFIED FOR GUTTERS	SEAMLESS	SOLEBOARDS	FACTORY MADE COMPONENTS	SYPHONIC KITS	WEATHER DEPENDENT INSTALLATION	PRIMERS AND ADHESIVES
BONDED MEMBRANE	NO ❌	YES ✅	NO ✅	NO ❌	NO ❌	YES ❌	YES ❌

Advantages



- Seamless and installed to full profile of the existing gutter
- Can also be used to increase capacity

Disadvantages



- Weather dependent for installation and on the substrate prep being clean and dry
- Cannot usually be applied over other systems as it relies on successful bonding
- Components such as corners and side boxes need to be site formed (cut and shut)
- Complicated outlets such as syphonics are ignored and left cut around which then relies on the bonding to ensure water doesn't get under the membrane

Applied liquids

Bonded membranes

Fold out system

Loose lay system

Bonded membranes



Applied liquids

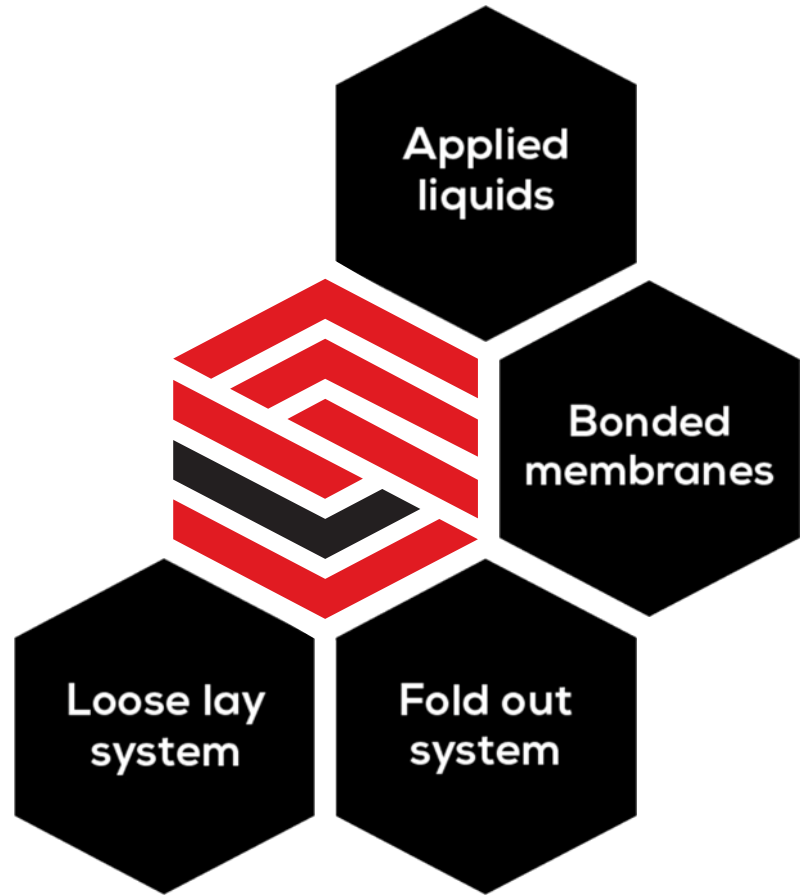
Bonded membranes

Fold out system

Loose lay system

System comparisons

Fold out
system



Fold out system

	BBA CERTIFIED FOR GUTTERS	SEAMLESS	SOLEBOARDS	FACTORY MADE COMPONENTS	SYPHONIC KITS	WEATHER DEPENDENT INSTALLATION	PRIMERS AND ADHESIVES
FOLD OUT SECTION	NO ❌	NO ❌	YES ❌	YES ✅	YES ✅	YES ❌	YES ❌

Advantages



- Components such as outlets, corners, side boxes and syphonic kits are factory formed
- The membrane bonded to the sections can be increased to extend up under the roof

Disadvantages



- Is not seamless and relies on jointing by bonding sections together
- Sole boards need to be installed to remove the height of the bolts, this reduces the capacity of the gutter
- Design limited
- Weather dependant installation

Applied liquids

Bonded membranes

Fold out system

Loose lay system

Fold out system



Applied liquids

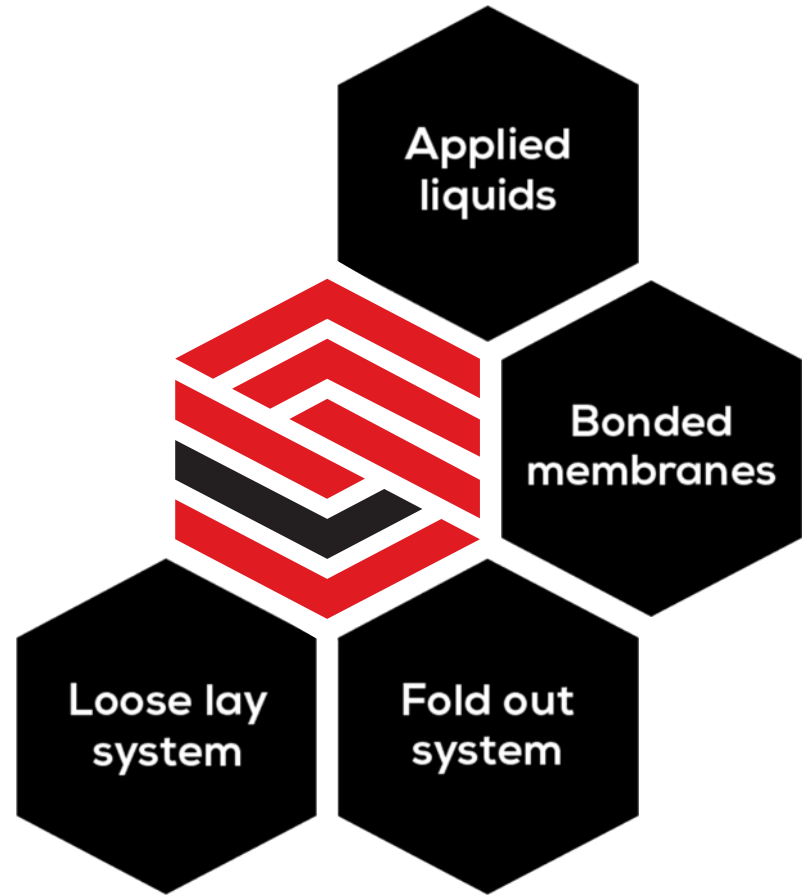
Bonded membranes

Fold out system

Loose lay system

System comparisons

Loose lay
system



Loose lay system

	BBA CERTIFIED FOR GUTTERS	SEAMLESS	SOLEBOARDS	FACTORY MADE COMPONENTS	SYPHONIC KITS	WEATHER DEPENDENT INSTALLATION	PRIMERS AND ADHESIVES
LOOSE LAY SYSTEM	YES <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/>	YES <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/>

Advantages

- Seamless, installed to full profile of the gutter, and in some situations can be extended under the roof to increase capacity. Any substrate, any size
- Components; outlets, corners, sump boxes etc. together with syphonic kits are all factory formed
- Prep work is kept to the minimum, and installation is less weather dependent
- Totally flexible , independent from existing gutter, can cope with uneven shapes

Disadvantages

- Most thermoplastics have a coefficient of thermal expansion in excess of the building. Ensure thermal movement of the liner is restrained in line with manufacturer's guidelines.
- Moves independently which with the thermal expansion can cause ponding.

Applied liquids

Bonded membranes

Fold out system

Loose lay system

Loose lay system



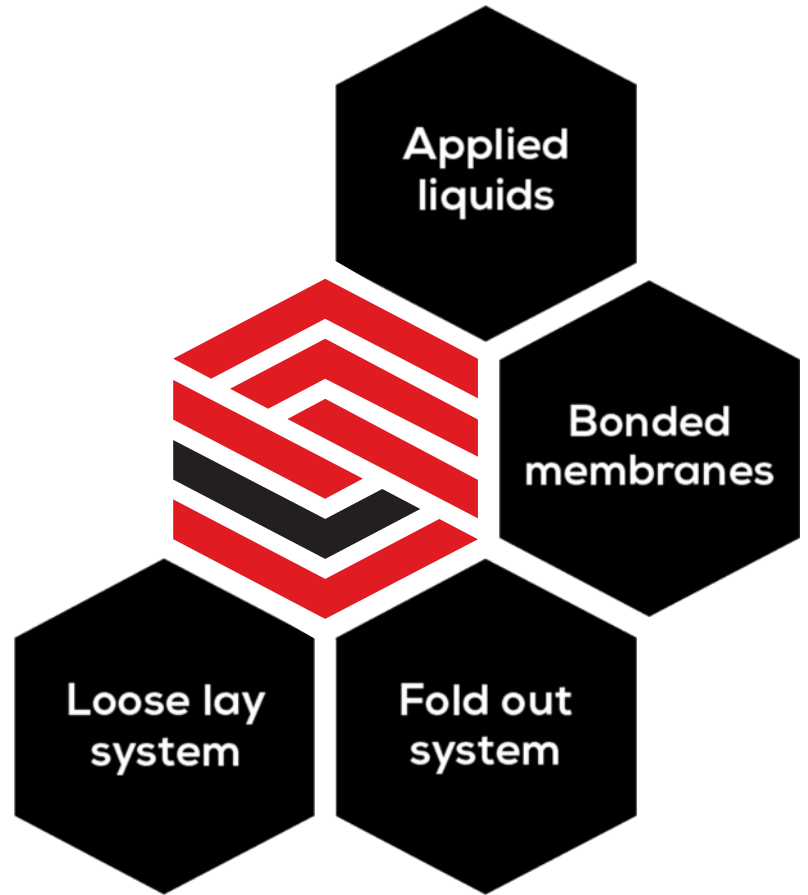
Applied liquids

Bonded membranes

Fold out system

Loose lay system

System comparisons



Sharmans - who we are today

Some milestones

<p>COMPANY FOUNDED</p> <p>Developed expertise in thermoplastic extrusion</p>  <p>1969</p>	<p>PLYGENE GUTTERLINE LAUNCHED</p> <p>Sharmans enter the roofing market</p>  <p>1985</p>	<p>BBA ACCREDITATION</p> <p>Market leading accreditation in the gutter environment</p>  <p>1999</p>	<p>NEW PLYGENE GUTTERLINE SYSTEM DEVELOPED</p> <p>Full system with 25 year guarantee launch</p>  <p>2016</p>	<p>NEW BRAND LAUNCHED</p> <p>Reposition Sharmans marketing platform</p>  <p>2016</p>	<p>SHARMANS FORM AN EXCLUSIVE PARTNERSHIP WITH DELVEMADE</p>  <p>2018</p>
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Specifier: How we support you

Survey and
Condition report



Bespoke
specifications



Site Audit
and inspection



Review &
consultation



Approved
Contractor
quotes



Authorise
Guarantee



Plygene Gutterline

- Single Point Guarantee - 25 Years
- BBA Certified
- Engineered specifically for the gutter environment
- Seamless and non-bonded
- Not weather dependent
- Nothing comparable on the market



Delcote GS

Where Plygene Gutterline cannot be mechanically fixed

- 10 year system guarantee
- 100% pure silicone
- No need for additional reinforcement
- Tried and tested since 1985



Your choice of guarantees

Sharmans offer a choice of either a single point guarantee or a product guarantee to meet your specific project needs.

Both types of guarantee are available to specifiers and Approved Contractors

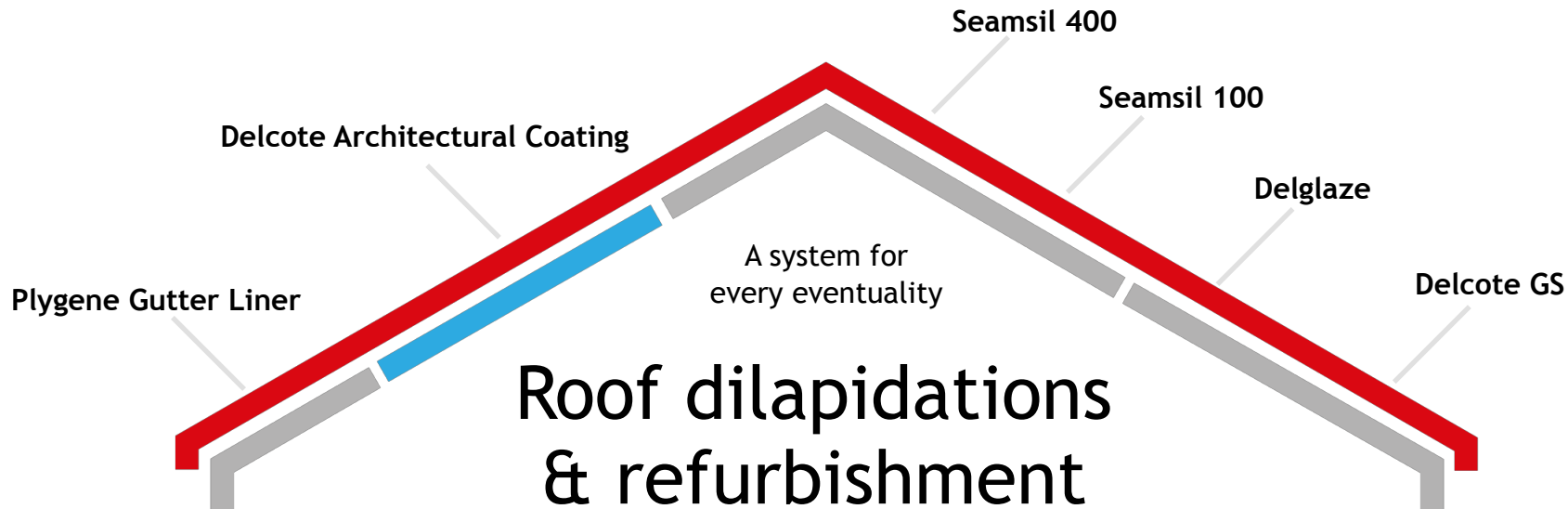


Guaranteed
system
performance

- ✓ **Gutter and roof** systems
- ✓ **Extend** building lifecycle
- ✓ **Nothing else** comparable
- ✓ **30+ years** tried and tested
- ✓ **Proven** technologies
- ✓ **Product and single point** guarantees



Your choice of products



sharmans
gutter & roof refurbishment systems

Performance
Coatings by

Delvemade

Practical demonstration





FULL SUPPORT FROM START TO FINISH

Site surveys

Specification support

Training

Installation support



service
& support

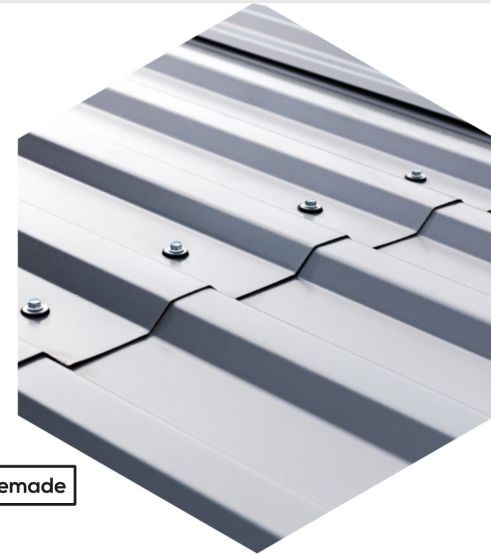
Arrange your next CPD

Our new CPD:

“Why metal roofs fail and the options to refurbish:
A specifier’s guide”

Metal roof refurbishment:

A specifier's
guide to
good practice.



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Performance
Coatings by **Delvemade**



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Questions & answers

