

ALUFLOW[®]

**Sustainable Affordable Quality
Aluminium Guttering System
Technical Guide**



Patented and Registered Design

Revolutionary Aluminium Guttering System

Aluflow® Gutter System has been designed and manufactured as a globally-leading gutter system. With its combined high quality, install speed and affordability Aluflow® is changing the guttering market globally, forever.

Aluflow® is no ordinary gutter system. Aluflow® is a highly durable and extremely robust guttering system, which is rapid to install, and manufactured at a very affordable pricing level.

Available in a range of standard colours, we also manufacture Aluflow® in any RAL colour of your choice. This means you can match your gutters to other elements of your property's colour scheme, such as windows and doors, providing a fully customised effect on any property.

The system has a wide range of components including a special Patented Rock N Lock® Gutter-to-Bracket solution for speed of installation.



Common uses:

- ✓ New Build Housing
- ✓ Existing Housing
- ✓ Listed Buildings
- ✓ Conservation areas
- ✓ Offices
- ✓ Schools
- ✓ Hospitals
- ✓ Hotels
- ✓ Portable Buildings/Cabins
- ✓ Sheds and Out Buildings

Qualities:

- ✓ Fast Rock N Lock Installation System
- ✓ Long-Lasting High Quality Aluminium
- ✓ Concealed Brackets
- ✓ Easy to Install
- ✓ Highly Durable and Robust
- ✓ Sustainable - 100% Recyclable
- ✓ High Weight Load Capacity
- ✓ Suitable for all Building Types
- ✓ Can be installed by DIYer's
- ✓ Deep Profile for High Water Capacity
- ✓ Increases Value of Properties



Why Aluflow®

Aluflow® is the best aluminium guttering available on the market today for three core reasons: its' installer friendly design, impressive looks and rapid delivery.



For full fitting instructions refer to the Aluflow® Installation Guide.

Aluflow® : Most Likely the Worlds Strongest Gutter Design with Concealed Brackets

Aluflow® has been tested with rigorous weight tests to measure the effect of snow loading and other loads that may be naturally applied to a gutter system in the most extreme conditions.



WARNING: Ensure you take professional advice on the fixings you use to secure Aluflow® to your fascia or wall. It needs to be stainless steel when fixing aluminium, but you need to ensure it is also safe and correct for the load you applied to the type of wall or fascia you are fixing to. You should also seek professional advice regarding the strength of the fascia or wall to make sure it can support the proposed worst case scenario proposed. Clear Amber Group can provide samples of the gutter and brackets for you to test and verify with a professional.

When testing the strength of guttering systems the most vulnerable or weakest points are generally in two areas:

Firstly the bracket that holds the gutter to the fascia or wall, and secondly, the front edge of the gutter which is furthest away from the fascia or wall.

When considering the bracket, it needs to be strong enough to support the weight of the gutter and any applied load on top of the gutter. In most climates, the greatest exerted force is when you have snow which partially melts and then freezes to ice, and then the process can repeat over several days or weeks until you have a gutter full of compacted ice and then possibly the same height again with mounding up of fresh ice and snow layers.

The front edge of the gutter which is furthest away from the fascia or wall has the greatest cantilever distance from the gutter bracket. When you get snow and ice build up, it's often this front area that will come under the greatest pressure. With plastic guttering, this is where the gutter brackets break and the gutter often fails completely.

A rig was created to test the strength of Aluflow® at its weakest point. The weakest point is the front edge of the Gutter with force applied downwards as this is cantilevered from the back

bracket which is fixed to the wall or fascia. A weight of 10kg was hung on the very front edge of the Aluflow® gutter at its weakest point. The temperature was an average of 21 degrees centigrade during the tests. Further 10kg weights were added until we loaded 80kgs across 1500mm length of Aluflow® which was hung on 3 x Aluflow® Rock N Lock® Gutter Brackets. You have to also bear in mind that these weights were loaded as point pressure loads circa every 190mm, where snow and ice would naturally be spread evenly.

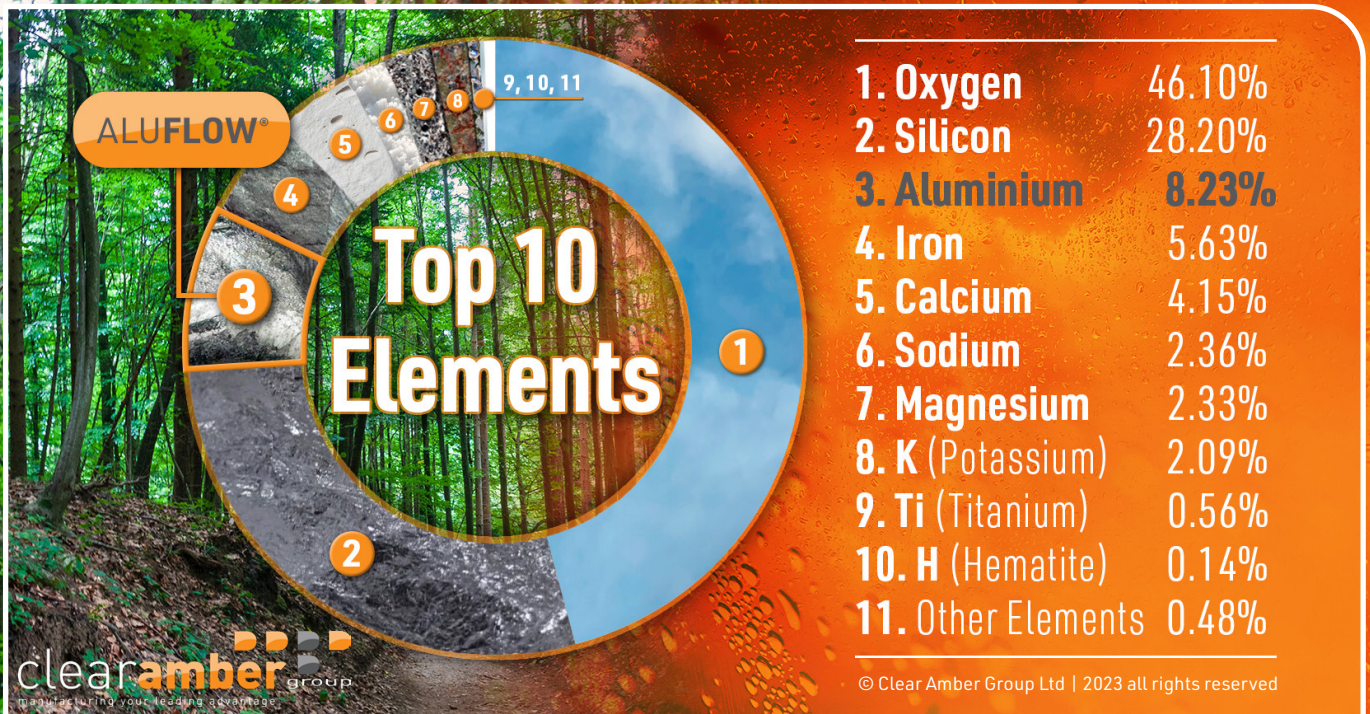
Minor deflection was noticed in the Aluflow® system with the 80kg load. As we have to ensure complete safety, we take this as the fail point (although it didn't completely fail even with this load) so we then reduced the load by a safety margin factor of 25% to 60kg load across the 1500mm. This is equivalent to 40kgs per meter of front edge loading. Most alternative gutters would fail completely with this 40kg/m load on the front edge. In addition to the amazing strength, Aluflow® is designed with concealed fascia brackets making these results even more incredible.

Aluflow® is designed with strength and longevity in mind and is most likely the world's strongest guttering system with concealed gutter brackets.

See results chart on page 16.

Aluflow® : Probably the Most Sustainable Guttering System on Earth

When we say that Aluflow® Aluminium Guttering is the most sustainable type of guttering in the world, we base it on three fundamental considerations:



Firstly, the availability of aluminium as a raw material is plentiful. Aluflow® is made from aluminium which is the third largest element in the Earth's crust, making up a massive 8.23% of what we know as the crust of the planet we live on. This is important as being readily available means that the extraction can be done in many areas that are not impacting critical natural habitat areas such as tropical rain forests, or ocean coral reefs.

Secondly, the structural integrity of Aluflow® has an estimated 60 year span in most standard applications, so that the gutter won't have rust or corrosion holes in it for many years, if ever. This long estimated lifespan is important for sustainability as it means that the energy used to create it can be spread over a 60 year estimated lifespan, compared to for example plastic which tends to break and crack and needs to be replaced sometimes as often as every 5 years.

Thirdly, because Aluflow® is manufactured from aluminium it is 100% recyclable. Furthermore, unlike plastic resins which are made from many plastic compounds and therefore tend to reduce their performance integrity each time they are recycled, Aluflow® aluminium can be recycled time and time again infinitely. Each time aluminium is recycled it remains as strong as in its original form as it is essentially a raw element which remains structurally strong. This means that even after Aluflow® guttering has come to the end of its long estimated lifespan, it is perfectly recyclable for 100% reuse.

The combination of these three factors makes Aluflow® probably the most sustainable guttering system on Earth.

Aluflow® : Rock N Lock® Gutter Bracket

These Aluflow® Gutter Rock N Lock® Brackets make installation fast and easy. With a patented design, these Aluflow® Rock N Lock® Brackets mean that the Aluflow® Gutters can be installed without any unsightly Gutter Brackets being visible. They remain concealed behind the Aluflow® Gutter, making an excellent aesthetically pleasing and stylish finish.

The Aluflow® Gutter Rock N Lock® Brackets are installed along a string line or laser line and then the Patented Rock N Lock® action means that full lengths of Aluflow® Gutter can be quickly installed with speed and ease. Then a simple Aluflow® Gutter Rock N Lock® Bracket Safety Screw ensures they cannot be removed.

The Aluflow® Gutter Rock N Lock® Brackets are designed to withstand loads that PVC gutters would not withstand, and have excellent durability.

Aluflow® Rock N Lock® Gutter Bracket	Code
Aluflow® Rock N Lock® Gutter Bracket - Black	AFLD73BL
Aluflow® Rock N Lock® Gutter Bracket - Grey	AFLD73GR
Aluflow® Rock N Lock® Gutter Bracket - White	AFLD73WH
Aluflow® Rock N Lock® Gutter Bracket - PC	AFLD73PC



Black



Grey



White



Any RAL Colour

Aluflow® : Top Hung Gutter Bracket (adjustable)

The Aluflow® Top Hung Gutter Bracket allows Aluflow® to be installed on to rafters where there is no fascia board. It is designed to be subtle and installed behind the Aluflow® guttering.

Created for use with on a wide range of roof pitches, these adjustable gutter brackets are easy to install with a patented two-part design.

As with our whole aluminium gutter system, we produce manufacture these gutter brackets in black, grey and white, plus any bespoke RAL colour.

Aluflow® Top Hung 2-Part Rafter Bracket	Code
Aluflow® Top Hung 2-Part Bracket - Black	AFLDTH99BL
Aluflow® Top Hung 2-Part Bracket - Grey	AFLDTH99GR
Aluflow® Top Hung 2-Part Bracket - White	AFLDTH99WH
Aluflow® Top Hung 2-Part Bracket - PC	AFLDTH99PC



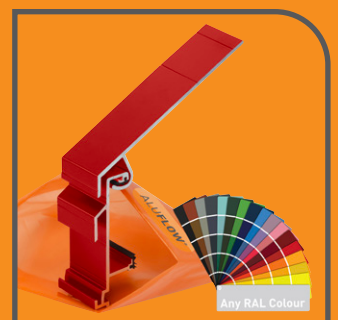
Black



Grey



White



Any RAL Colour

Aluflow® : Deepflow Gutter

This patented aluminium gutter system is designed for maximum strength and durability. Aluflow® will not break like plastic gutter and has an excellent snow or weight loading. In addition, this Aluflow® Gutter is sustainable and affordable.

Available in standard colours Black, Grey and White, as well as any RAL colour on special order. Aluflow® gutters can be colour matched to any housing or commercial building scheme. Aluflow® Gutter is a deep style design for excellent capacity and a great aesthetic.

Length	Aluflow® Deepflow Gutter	Code
2.0m	Aluflow® Deepflow Gutter - Black	AFLD722BL
2.0m	Aluflow® Deepflow Gutter - Grey	AFLD722GR
2.0m	Aluflow® Deepflow Gutter - White	AFLD722WH
2.0m	Aluflow® Deepflow Gutter - PC	AFLD722PC
3.0m	Aluflow® Deepflow Gutter - Black	AFLD723BL
3.0m	Aluflow® Deepflow Gutter - Grey	AFLD723GR
3.0m	Aluflow® Deepflow Gutter - White	AFLD723WH
3.0m	Aluflow® Deepflow Gutter - PC	AFLD723PC
4.0m	Aluflow® Deepflow Gutter - Black	AFLD724BL
4.0m	Aluflow® Deepflow Gutter - Grey	AFLD724GR
4.0m	Aluflow® Deepflow Gutter - White	AFLD724PC
4.0m	Aluflow® Deepflow Gutter - PC	AFLD724WH



Black

Grey



White

Any RAL Colour

Aluflow® : Gutter Deepflow Running Outlet

The Aluflow® Running Outlet is designed as a high capacity outlet for high volumes of water. The Aluflow® Running Outlet also Rock N Locks in to the Aluflow® Rock N Lock® Gutter Brackets providing excellent strength and alignment. Aluflow® Downpipe then slots on to the lower outlet to allow control and direction of the rainwater.

The Aluflow® Gutter Running Outlet requires a Gutter Union either side to join to the following guttering component.



Black

Grey



White

Any RAL Colour

Aluflow® Gutter Deepflow Running Outlet	Code
Aluflow® Gutter Deepflow Running Outlet - Black	AFLD75BL
Aluflow® Gutter Deepflow Running Outlet - Grey	AFLD75GR
Aluflow® Gutter Deepflow Running Outlet - White	AFLD75WH
Aluflow® Gutter Deepflow Running Outlet - PC	AFLD75PC

Aluflow® : Gutter Deepflow Union

These Aluflow® Gutter Unions are part of the patented design that allows for fast and secure connections with a Rock N Lock® motion, silicone seal and firm mechanical screw fixing method. The Aluflow® Gutter Unions come with the two screws ready for installation, which screw in to pre-formed screw port channels in the Aluflow® Gutters, Running Outlets and Gutter Angles.

The Aluflow® Gutter Union is required to join the Aluflow® Gutter lengths, Running Outlet, Internal and External Angles.

Aluflow® Deepflow Gutter Union	Code
Aluflow® Deepflow Gutter Union - Black	AFLD74BL
Aluflow® Deepflow Gutter Union - Grey	AFLD74GR
Aluflow® Deepflow Gutter Union - White	AFLD74WH
Aluflow® Deepflow Gutter Union - PC	AFLD74PC



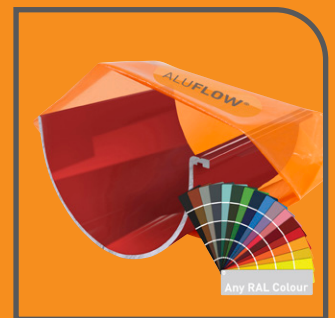
Black



Grey



White



Any RAL Colour

Aluflow® : Deepflow Gutter Left and Right Hand Stopends

Each end of the Aluflow® Gutter will require an Aluflow® Gutter Stopend to cap off the rainwater. These Aluflow® Gutter Stopends Rock N Lock® in to position in the same way as the Aluflow® Gutter Unions, and should be sealed with Securbond® Silicone Sealant and then mechanically locked in place with the Aluflow® Gutter Screw, for a secure and firm seal. The shape of Aluflow® Gutter is not completely symmetrical which is why you will require one right hand stopend and one left hand stopend for each run of Aluflow® Gutter. The Aluflow® Gutter Stopends also fit in to the end of the Aluflow® Running Outlets or Aluflow® 90 Degree Angles and can be secured and sealed in the same way.

Aluflow® Deepflow Gutter LH Stopend	Code
Aluflow® Deepflow Gutter LH Stopend - Black	AFLD76BL
Aluflow® Deepflow Gutter LH Stopend - Grey	AFLD76GR
Aluflow® Deepflow Gutter LH Stopend - White	AFLD76WH
Aluflow® Deepflow Gutter LH Stopend - PC	AFLD76PC

Aluflow® Deepflow Gutter RH Stopend	Code
Aluflow® Deepflow Gutter RH Stopend - Black	AFLD77BL
Aluflow® Deepflow Gutter RH Stopend - Grey	AFLD77GR
Aluflow® Deepflow Gutter RH Stopend - White	AFLD77WH
Aluflow® Deepflow Gutter RH Stopend - PC	AFLD77PC



LH Stopend - Black



LH Stopend - Grey



LH Stopend - White



LH Stopend - Any RAL Colour

Aluflow® : Deepflow Gutter 90° Internal Angle

We manufacture the Aluflow® 90 Degree Gutter Angles for internal and external 90 degree corners. This Aluflow® 90 Degree Gutter Internal Angle is also designed uniquely with a natural sweep, that allows a fast flow of rainwater around the corner and greatly assists with extra volume of water from valleys during heavy rainfall. The Aluflow® 90 Degree Gutter Internal Angle Rock N Locks into the Aluflow® Rock N Lock® Gutter Brackets providing excellent strength and alignment. Aluflow® 90 Degree Gutter Internal Angles make an excellent connection around the inward facing corner of any building.

The Aluflow® Gutter Internal Angle requires a Gutter Union either side to join to the following guttering component.

Aluflow® Gutter 90° Internal Angle	Code
Aluflow® Deepflow Gutter 90° Internal Angle - Black	AFLD78IBL
Aluflow® Deepflow Gutter 90° Internal Angle - Grey	AFLD78IGR
Aluflow® Deepflow Gutter 90° Internal Angle - White	AFLD78IWH
Aluflow® Deepflow Gutter 90° Internal Angle - PC	AFLD78IPC



Black



Grey



White



Any RAL Colour

Aluflow® : Deepflow Gutter 90° External Angle

We manufacture the Aluflow® 90 Degree Gutter Angles for internal and external 90 degree corners. This Aluflow® 90 Degree Gutter External Angle is designed uniquely with a natural 90 degree sweep. This allows a fast flow of rainwater around the corner and reduces the chances of overspill during heavy rainfall. The Aluflow® 90 Degree Gutter Angles Rock N Lock in to the Aluflow® Rock N Lock® Gutter Brackets, Which provides excellent strength and alignment. Aluflow® 90 Degree Gutter External Angles make an excellent connection around the outward facing corner of any building.

The Aluflow® Gutter External Angle requires a Gutter Union either side to join to the following guttering component.

Aluflow® Gutter 90° External Angle	Code
Aluflow® Deepflow Gutter 90° Internal Angle - Black	AFLD78EBL
Aluflow® Deepflow Gutter 90° Internal Angle - Grey	AFLD78EGR
Aluflow® Deepflow Gutter 90° Internal Angle - White	AFLD78EWH
Aluflow® Deepflow Gutter 90° Internal Angle - PC	AFLD78EPC



Black



Grey



White



Any RAL Colour

Aluflow® : Gutter Bracket Stainless Steel Safety Screws

These Aluflow® 12.5mm Gutter Bracket Stainless Safety Screws are an optional extra. They are used to prevent any movement of the Aluflow® aluminium gutter in the unlikely event there is some vertical movement within the Brackets.

By simply screwing these into the upper screw line of the Aluflow® aluminium gutter brackets, as indicated in the fitting instructions, you have total peace of mind.



Aluflow® Gutter Bracket Safety Screws	Code
Aluflow® Gutter Bracket Stainless Steel 12.5mm Safety Screws - 50 Pack	AFLD3060

Aluflow® : Downpipe

Aluflow® Downpipe is a straightforward round downpipe for maximum water flow capacity. However, Aluflow® Downpipe is made from robust aluminium that won't crack like plastic downpipe and also won't rust like cast iron or other metal downpipes. Aluflow® Downpipe is designed with longevity in mind and is available in three standard colours as well as any RAL colour.

Length	Aluflow® Downpipe	Code
2.5m	Aluflow® Downpipe - Black	AF201BL
2.5m	Aluflow® Downpipe - Grey	AF201GR
2.5m	Aluflow® Downpipe - White	AF201WH
2.5m	Aluflow® Downpipe - PC	AF201PC
4.0m	Aluflow® Downpipe - Black	AF203BL
4.0m	Aluflow® Downpipe - Grey	AF203GR
4.0m	Aluflow® Downpipe - White	AF203WH
4.0m	Aluflow® Downpipe - PC	AF203PC



Black



Grey



White



Any RAL Colour

Aluflow® : Downpipe 112° Offset Bend

These Aluflow® Downpipe 112° Offset Bends allow for the rainwater passing down through the downpipe to be directed to the chosen area. Typically a gutter is installed on a fascia which is extended out beyond the brickwork, from the wall by the distance of the soffit. Using two Aluflow® Downpipe 112° Offset Bends you can create a 'swan neck' effect with the downpipe. Not only to direct the downpipe back to the wall, but also direct it to to position along the wall, if you are needing to align it with a drain or avoid an obstacle.



Black



Grey



White



Any RAL Colour

Aluflow® Downpipe 112° Offset Bend	Code
Aluflow® Downpipe 112° Offset Bend - Black	AF209BL
Aluflow® Downpipe 112° Offset Bend - Grey	AF209GR
Aluflow® Downpipe 112° Offset Bend - White	AF209WH
Aluflow® Downpipe 112° Offset Bend - PC	AF209PC

Aluflow® : Downpipe Bracket

To secure Aluflow® Downpipe to a wall or other surface, it is important to use Aluflow® Downpipe Brackets. We manufacture these Aluflow® Downpipe Brackets with a robust aluminium structure that ensures maximum fixing strength. These Aluflow® Downpipe Brackets should be used particularly to safely secure Aluflow® Downpipe Offset Bends and Aluflow® Downpipe Shoes as well as the Aluflow® Downpipe itself. Aluflow® Downpipe Brackets do not snap or break like plastic downpipe brackets do and will typically last many more years.

Aluflow® Downpipe Bracket	Code
Aluflow® Downpipe Bracket - Black	AF207BL
Aluflow® Downpipe Bracket - Grey	AF207GR
Aluflow® Downpipe Bracket - White	AF207WH
Aluflow® Downpipe Bracket - PC	AF207PC



Black



Grey



White



Any RAL Colour

Aluflow® : Downpipe Connector

Where you need to join two lengths of Aluflow® Downpipe, this Aluflow® Downpipe Connector makes an easy and clean connection. Always ensure that the female end of the Aluflow® Downpipe Connector is installed to the upper end of the downpipe connection. As with all Aluflow® Downpipe fittings it is also recommended that these are sealed with Securbond® Silicone Sealant. This is an additional safe guard for a perfect seal with any high volume rainfall occurrences.

Aluflow® Downpipe Connector	Code
Aluflow® Downpipe Connector - Black	AF206BL
Aluflow® Downpipe Connector - Grey	AF206GR
Aluflow® Downpipe Connector - White	AF206WH
Aluflow® Downpipe Connector - PC	AF206PC



Black



Grey



White



Any RAL Colour

Aluflow® : Downpipe Y Branch

The Aluflow® Downpipe Y Branch helps connect two adjoining downpipes into one final downpipe to the drain. This Aluflow® Downpipe Y Branch is designed for use with the Aluflow® aluminium downpipes.

As with the rest of our aluminium guttering range, we manufacture this 68mm downpipe branch in white, grey and black as standard, plus any bespoke RAL colour.



Black



Grey



White



Any RAL Colour

Aluflow® Downpipe Y Branch	Code
Aluflow® Downpipe Y Branch - Black	AF218BL
Aluflow® Downpipe Y Branch - Grey	AF218GR
Aluflow® Downpipe Y Branch - White	AF218WH
Aluflow® Downpipe Y Branch - PC	AF218PC

Aluflow® : Downpipe Shoe

Even when the Aluflow® Downpipe is coming down directly above a drain, it is always recommended to install an Aluflow® Downpipe Shoe at the bottom of the downpipe. The benefit of installing an Aluflow® Downpipe Shoe is that it directs the falling rainwater from the downpipe away from splashing the house wall. In colder weather this is particularly important to ensure that the wall is kept dry and free from erosion. As with all Aluflow® Downpipe fittings it is also recommended that these are sealed with Securbond® Silicone Sealant which is an additional safe guard for a perfect seal with any high volume rainfall.



Black



Grey



White



Any RAL Colour

Aluflow® Downpipe Shoe	Code
Aluflow® Downpipe Shoe - Black	AF216BL
Aluflow® Downpipe Shoe - Grey	AF216GR
Aluflow® Downpipe Shoe - White	AF216WH
Aluflow® Downpipe Shoe - PC	AF216PC

Aluflow® : Downpipe Hopper

The Aluflow® Downpipe Hopper is a robust aluminium hopper that is perfect for connecting multiple downpipe runs or flat roof outlets.

Designed with a stunning shape, this rainwater hopper includes the signature Aluflow® curves and beaded top edge, making it look great on all properties. Aluflow® guttering hopper is available in popular colours such black, white and grey, as well as bespoke to any RAL colour.



Black



Grey



White



Any RAL Colour

Aluflow® Downpipe Hopper	Code
Aluflow® Downpipe Hopper - Black	AF210BL
Aluflow® Downpipe Hopper - Grey	AF210GR
Aluflow® Downpipe Hopper - White	AF210WH
Aluflow® Downpipe Hopper - PC	AF210PC



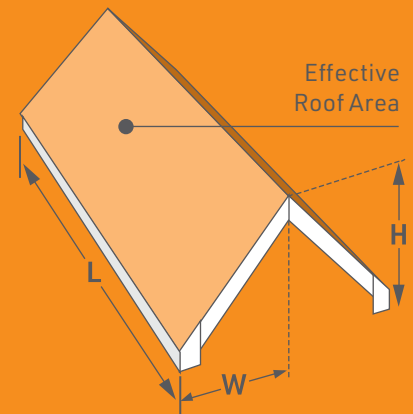
Aluflow[®] : Technical Data

Rainfall Allowances

Within BS EN 12056 the standard suggests that expected rainfall intensities in the UK with storm events, which may be experienced as unusual events of 2 minutes duration, once every few years. The volume of water involved in these events increases as they become less frequent, but because of their relative infrequency, it is suggested that domestic gutter systems should be designed for storm events that are likely to occur once a year. The intensity of these events can vary across the UK, however it is wise to plan your guttering system for a minimum intensity of 75mm/hour per m2 or a flow rate of 0.021 litres per second.

Aluflow[®] Roof Area Calculations

Rain falling on a roof ultimately drains down to the gutter and then down the downpipe. The effective roof area is calculated using a simple formula: $([Height\ from\ eaves\ to\ Ridge / 2] + Width - projection) \times Length\ along\ Gutter\ side$.



Aluflow[®] Roof Area Calculations

Effective Area = $(H/2) + W$ x L	= $(H/2) + W$ x L	
Effective Area Example	= $(4m/2) + 4m$ x 10m	= 60m ²

Aluflow[®] Running Outlet Distances and Frequency

It is generally recommended that the maximum distance of gutter from a running outlet is 50 x the gutter depth. Aluflow[®] gutter has a depth of 75mm. Therefore the calculation is 50 x 75mm = 3750mm. Practically however many systems are installed with as much as 100 x the gutter depth, especially for smaller roof areas, or low pitch roofs where the flow is slower. Users are advised to make site specific calcs and tests.

Gutter Calculation	50 x Gutter Height-Length Cal.	100 x Gutter Height-Length Cal.
Aluflow [®] Deep Gutter Height	75mm	75mm
Distance Multiplier	x 50	x 100
Maximum Distance from Running Outlet	3750mm	7500mm

Aluflow[®] Flow Capacity

Aluflow [®] Deep Gutter Length	50 x H = Max Length	50 x 75mm = 3750mm
Gutter Angle	0 Degrees	Flat / Level Run of Gutter
Running Outlet Position	End of Run	Water Direction - Singular
Max Considered Event	75mm/m ² Per Hour	0.021 Litres/Second
Safety Factor	10%	10%
Aluflow [®] Capacity	1.8 Litres/Second	86m ² Max Area Drained

Aluflow[®] Finish

System	Finish
Aluflow [®] Gutter	Smooth Powder Coated
Aluflow [®] Downpipe	Smooth Powder Coated

Aluflow[®] Colours

Colour	RAL Code
White	9010
Grey	7016
Black	9017
RAL Colour	Any - Please specify



Aluflow® : Technical Data (continued)

Aluflow® Dimensions

System	Internal Width/Diameter	Internal Gutter Depth Capacity	Area Capacity
			$A = \pi x a / 2 x b / 2 / 2 \approx$
Aluflow® Gutter System	112mm	75mm	6597.50mm ²

Aluflow® Dimensions

System	Internal Width/Diameter	Internal Gutter Depth Capacity	Area Capacity
			$A = \pi r^2 = \pi \cdot 322 \approx$
Aluflow® Gutter System	68mm	64mm	3216.99mm ²

Aluflow® Fire Performance

System	Material
Aluflow® Gutter System	Aluflow® Gutter is made from aluminium alloys which are fire resistant
Aluflow® Downpipe System	Aluflow® Gutter is made from aluminium alloys which are fire resistant

Aluflow® Durability - Estimated Life Span

System	Metal	Powder Coating	Seals
Aluflow® Gutter System	60 Years*	20 Years*	20 Years*
Aluflow® Downpipe System	60 Years*	20 Years*	20 Years*

* When cleaned and maintained correctly

Aluflow® Cleaning and Maintenance

Keep clear of Leaves and Direct Build up

Check seals regularly and repair with new seal as required

Wash down with a solution of soapy warm water, in severe cases a non-abrasive kitchen cream cleaner should be used

Aluflow® Storage Handling and Transport

Aluflow® goods should be stored in a clean and dry area out of direct sunlight

For best results keep goods free from dirt or dust during storage

Aluflow® Impact Resistance

System	Resistance for Breakage from Impact	Resistance for Denting from Impact
Aluflow® Gutter System	Excellent - Extremely Strong	Strong - Handle with Care
Aluflow® Downpipe System	Excellent - Extremely Strong	Strong - Handle with Care

Aluflow® Environmental and Biological

Environmental Impact	Naturally Environmentally Friendly - Made from Aluminium which is a natural element of the Earth
Disposal of waste materials	All fittings and Lengths 100% recyclable
Sustainability	Highly Sustainable: Made from natural elements, 60 year material estimated life span, and 100% recyclable

Aluflow® Resistance

Bacterial Growth	High Resistance - Wipe Clean Surface
Fungal Growth	High Resistance - Wipe Clean Surface
Termite Attack	Highly Resistant
Rodent Attack	Highly Resistant
Vermin Attack	Highly Resistant
Small & Medium Animal Attack	Strong Resistance

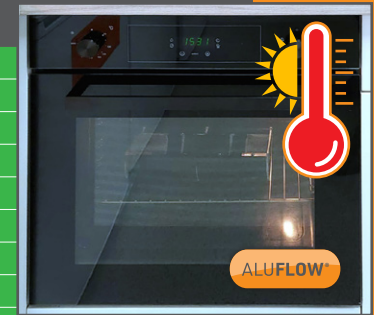
Aluflow® Cold Test

Kit Size	300mm Length	
Temperature	-18 Deg Centigrade	
Duration at Minimum Temperature	+ 24 Hours	
Joint Types	Gutter Union and Stopend	
Joint Method	Standard Securbond® Silicone and Aluflow® Screw	
Water Fill Depth	50mm (min)	
Temperature in Degrees Centigrade	Visual effect on Seals and Fitments	Water Seal on Connections
21.00	None	Perfect Seal
0.00	None	Perfect Seal
-10.00	None	Perfect Seal
-15.00	None	Perfect Seal
-18.00	None	Perfect Seal
-15.00	None	Perfect Seal
-10.00	None	Perfect Seal
0.00	None	Perfect Seal
21.00	None	Perfect Seal



Aluflow® Heat Test

Kit Size	300mm Length	
Temperature	100 Deg Centigrade	
Duration at Minimum Temperature	4 Hours	
Joint Types	Gutter Union and Stopend	
Joint Method	Standard Securbond® Silicone and Aluflow® Screw	
Water Fill Depth	50mm (min)	
Temperature in Degrees Centigrade	Visual effect on Seals and Fitments	Water Seal on Connections
21.00	None	Perfect Seal
50.00	None	Perfect Seal
75.00	None	Perfect Seal
100.00	None	Perfect Seal
100.00	None	Perfect Seal
100.00	None	Perfect Seal
75.00	None	Perfect Seal
50.00	None	Perfect Seal
21.00	None	Perfect Seal



Aluflow® Strength Test

Point Loaded	10 kgs per point			
Temperature	21 Deg Centigrade			
Load Point	Hung on Front Edge of Gutter			
Fascia Bracket Centres	700mm Centres			
Test Gutter Length	1500mm			
Load in kgs/1500mm	Load in kgs/1000mm	Visual effect on screws	Visual effect on gutter brackets	Visual effect on gutter shape integrity
10.00	6.67	None	None	None
20.00	13.33	None	None	None
30.00	20.00	None	None	None
40.00	26.67	None	None	None
50.00	33.33	None	None	None
60.00	40.00	None	None	None
70.00	46.67	None	None	None
80.00	53.33	None	None	Minor Deflection
90.00	60	None	None	Medium Deflection/Failure



Aluflow® Disclaimer:

Aluflow® products are powder coated to closely matched RAL codes within industry accepted tolerances. However please note that the varying manufacturing processes of different items such as the substrates, application methods and paint conditions can lead to slight variations in colour and satin-level finish. Additionally, the finished colours may differ from batch-to-batch. Therefore, there may be shading and satin-level differences between different components which is an accepted phenomenon. Aluflow® has an estimated lifespan of 60 years as it is made from aluminium and therefore should retain structural and functional integrity. However, the longevity of the powder coating and colour shade or satin-level finish level of the powder coating is excepted from this longevity estimate. All endeavours are made when manufacturing to provide the longest lasting gutter system possible.

WARNING : REGISTERED DESIGNS & PATENTS

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Inasmuch as Clear Amber have no control over the circumstances in which our material may be used, or site specific parameters, we cannot guarantee that any particular results will be achieved.

Users should carry out their own tests to determine the suitability of the material for their application. Installers should satisfy themselves that published permissible loadings and spacings for the Aluflow® guttering system, together with any supporting posts, frames, or walls and fixings, are sufficient to provide adequate strength for the intended use and to meet regional loading requirements. Installers should also obtain their own job-specific structural engineer's report for their individual site. Samples are readily available to users to test and verify the exact sizes according to their site requirements.