



ALUFLOW®

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



ALUFLOW®

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 bespoke 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

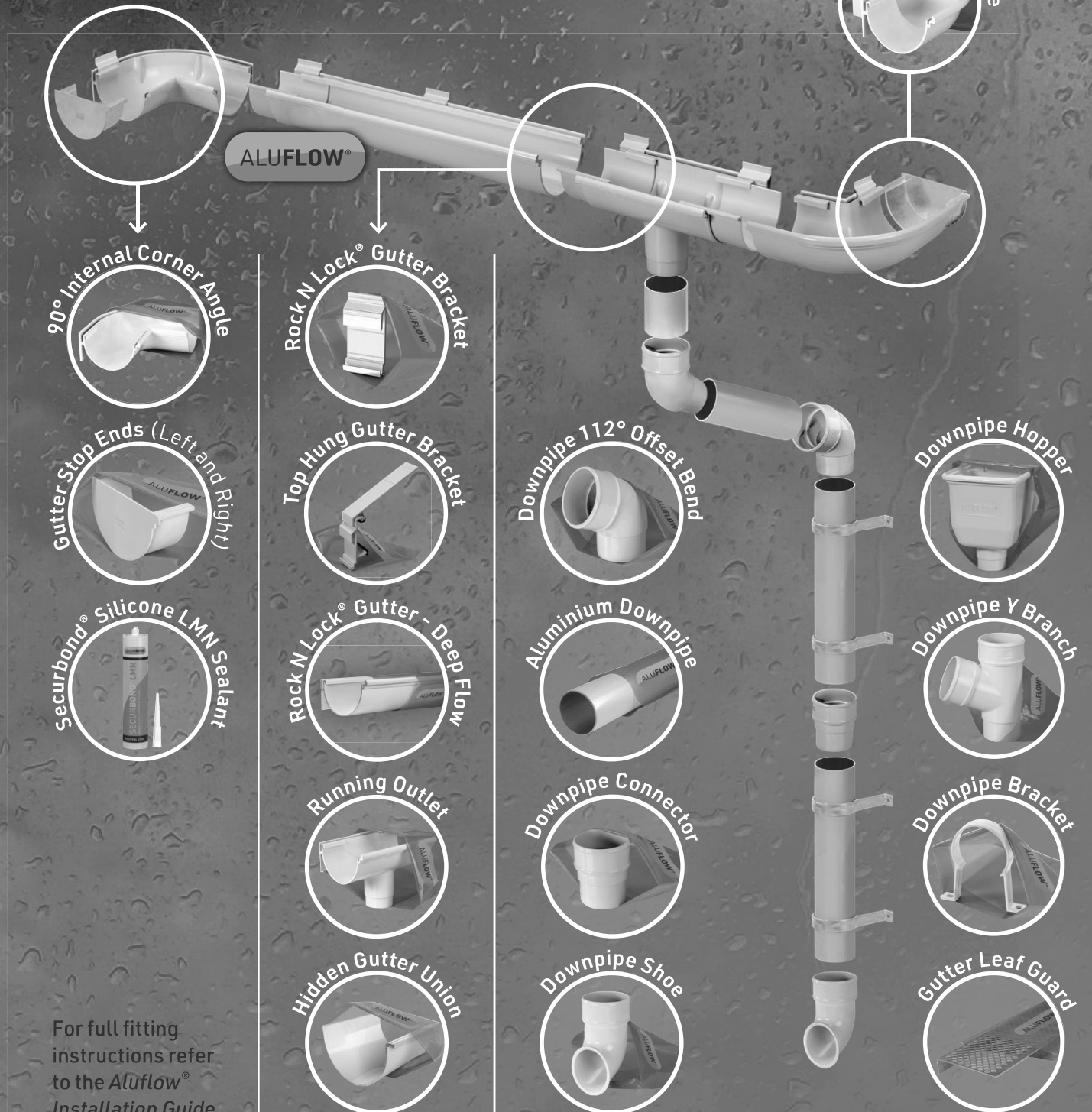
Qualities:

- ✓ 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.

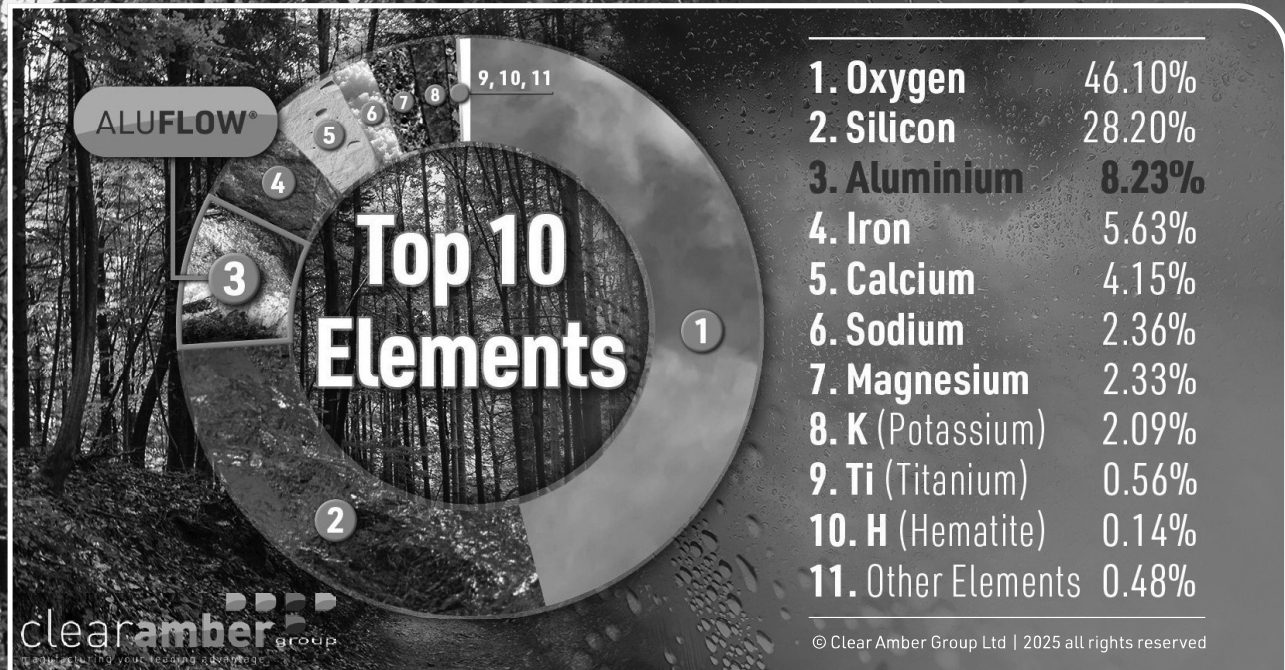
Minor deflection was noticed in the Aluflow® system with the 80kg load. As we have to ensure complete safety, we take this as the fail point (although it didn't completely fail even with this load) so we then reduced the load by a safety margin factor of 25% to 60kg load across the 1500mm. This is equivalent 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.

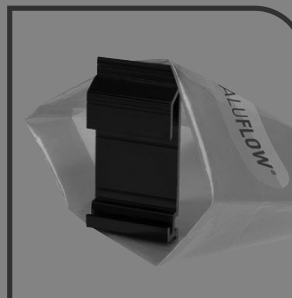
Aluflow® : Rock N Lock® Gutter Bracket

The Aluflow® Gutter Rock N Lock® Brackets make installation fast and easy. With a patented design, the 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 gutter, making an excellent aesthetically pleasing and stylish finish.

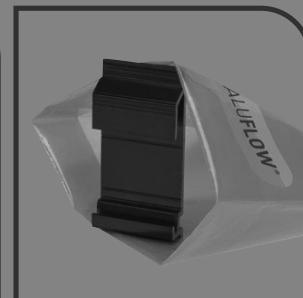
The Aluflow® Gutter Rock N Lock® Brackets are installed along a string line or laser line and then the Patented Rock N Lock® action means that full lengths of Aluflow® Gutter can be quickly installed with speed and ease. Then an optional simple Aluflow® 12.5mm Gutter Bracket Safety Screw ensures they 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.

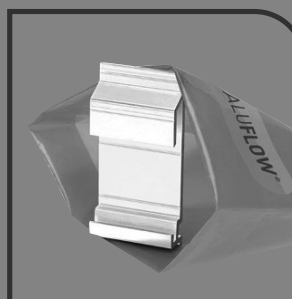
Description	Code
Aluflow® Rock N Lock® Gutter Bracket - Black	AFLD73BL
Aluflow® Rock N Lock® Gutter Bracket - Grey	AFLD73GR
Aluflow® Rock N Lock® Gutter Bracket - White	AFLD73WH
Aluflow® Rock N Lock® Gutter Bracket - Bespoke Colour	AFLD73PC



Black



Grey



White



Any bespoke RAL colour

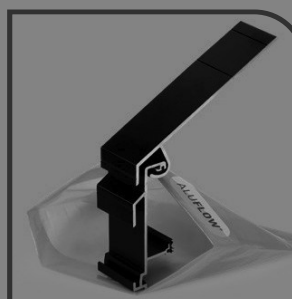
Aluflow® : Top Hung Gutter Bracket (adjustable)

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.

Description	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 - Bespoke Colour	AFLDTH99PC



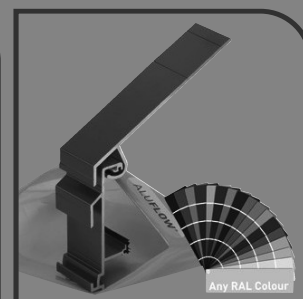
Black



Grey



White



Any bespoke RAL colour

Aluflow® : Deep Flow 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 bespoke 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	Description	Code
2.0m	Aluflow® Deep Flow Gutter - Black	AFLD722BL
2.0m	Aluflow® Deep Flow Gutter - Grey	AFLD722GR
2.0m	Aluflow® Deep Flow Gutter - White	AFLD722WH
2.0m	Aluflow® Deep Flow Gutter - Bespoke Colour	AFLD722PC
3.0m	Aluflow® Deep Flow Gutter - Black	AFLD723BL
3.0m	Aluflow® Deep Flow Gutter - Grey	AFLD723GR
3.0m	Aluflow® Deep Flow Gutter - White	AFLD723WH
3.0m	Aluflow® Deep Flow Gutter - Bespoke Colour	AFLD723PC
4.0m	Aluflow® Deep Flow Gutter - Black	AFLD724BL
4.0m	Aluflow® Deep Flow Gutter - Grey	AFLD724GR
4.0m	Aluflow® Deep Flow Gutter - White	AFLD724PC
4.0m	Aluflow® Deep Flow Gutter - Bespoke Colour	AFLD724WH



Black



Grey



White



Any bespoke RAL colour

Aluflow® : Gutter Deep Flow 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.

Description	Code
Aluflow® Gutter Deep Flow Running Outlet - Black	AFLD75BL
Aluflow® Gutter Deep Flow Running Outlet - Grey	AFLD75GR
Aluflow® Gutter Deep Flow Running Outlet - White	AFLD75WH
Aluflow® Gutter Deep Flow Running Outlet - Bespoke Colour	AFLD75PC



Black



Grey



White



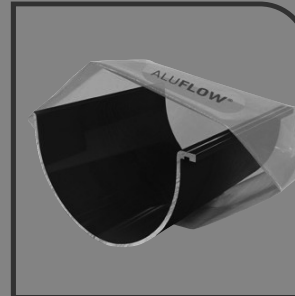
Any bespoke RAL colour

Aluflow® : Gutter Deep Flow Union

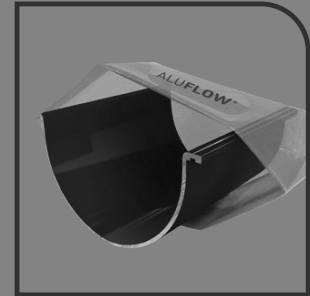
These Aluflow® Gutter Unions are part of the patented design that allows for fast and secure connections with a Rock N Lock® motion, silicone seal and firm mechanical screw fixing method. The Aluflow® Gutter Unions come with the two screws ready for installation, which screw in to pre-formed screw port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

The Aluflow® Gutter Union is required to join the Aluflow® gutters, running outlets, internal and external corners.

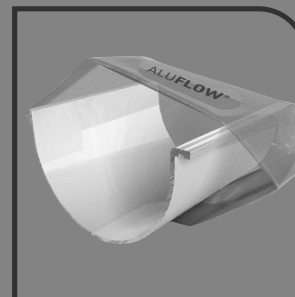
Description	Code
Aluflow® Deep Flow Gutter Union - Black	AFLD74BL
Aluflow® Deep Flow Gutter Union - Grey	AFLD74GR
Aluflow® Deep Flow Gutter Union - White	AFLD74WH
Aluflow® Deep Flow Gutter Union - Bespoke Colour	AFLD74PC



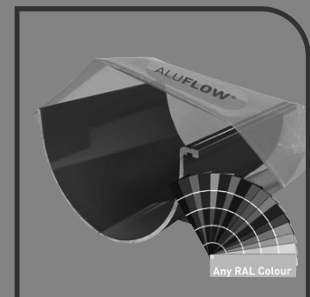
Black



Grey



White



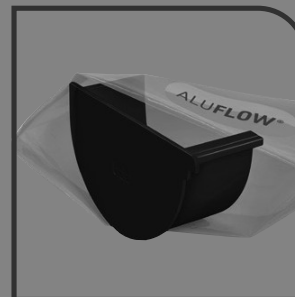
Any bespoke RAL colour

Aluflow® : Deep Flow Gutter Left and Right Hand Stop Ends

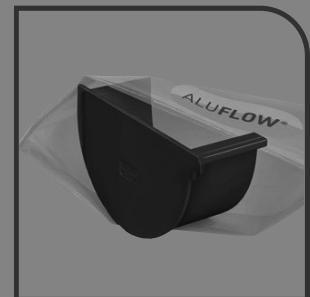
Each end of the Aluflow® Gutter will require an Aluflow® Gutter Stop End to cap off the rainwater. These Aluflow® Gutter Stopends Rock N Lock® in to position in the same way as the Aluflow® Gutter Unions, and should be sealed with Securbond® Silicone Sealant and then mechanically locked in place with 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 stop end and one left hand stop end for each run of Aluflow® Gutter. The Aluflow® Gutter Stop Ends 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.

Description	Code
Aluflow® Deep Flow Gutter LH Stop End - Black	AFLD76BL
Aluflow® Deep Flow Gutter LH Stop End - Grey	AFLD76GR
Aluflow® Deep Flow Gutter LH Stop End - White	AFLD76WH
Aluflow® Deep Flow Gutter LH Stop End - Bespoke Colour	AFLD76PC

Description	Code
Aluflow® Deep Flow Gutter RH Stop End - Black	AFLD77BL
Aluflow® Deep Flow Gutter RH Stop End - Grey	AFLD77GR
Aluflow® Deep Flow Gutter RH Stop End - White	AFLD77WH
Aluflow® Deep Flow Gutter RH Stop End - Bespoke Colour	AFLD77PC



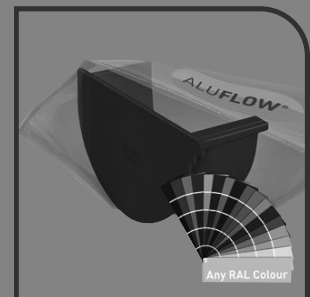
LH Stop End - Black



LH Stop End - Grey



LH Stop End - White



LH Stop End - Any bespoke RAL colour