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SuraFlow-GutterGuard

As we all know, the function of a gutter is to drain the water that runs off the roof of the property when it is raining. If it didn’t have gutters, the water would run down the walls and because brickwork is porous, cause damp inside the house. Apart from making for an unpleasant living environment putting right the damage that damp causes is expensive.

How Do Gutters Get Blocked?

If you are building or renovating a property in an area where there are trees there is a good chance that some of the debris that trees drop, in the form of leaves, needles, buds, seeds, etc., will end up in the gutter. Add to that the problem of moss, mix with water, and other debris and very soon you end up with a gutter full gloopy muck. If it is raining hard enough some of the debris will get washed along the gutter and down the downpipe and possibly away to a soakaway. However if there is too much debris either the soakaway, the downpipe or the gutter will become blocked and overflow. Left unattended the effect is the same as not having any gutters at all – damp and damage to the fabric of the property.

Most of the debris that finds its way into the gutter gets there, not when it is raining, but when its windy and or in the case of moss when the birds decide to have a rummage through it for food. Unfortunately, gutters, functioning as they do, provide the perfect shape to ‘trap’ all that debris, so fitting bigger, deeper gutters is not the answer. The obvious thing to do would be to cover the gutters so the debris can’t get in. But then how do you get the water into the gutter to be drained safely away?

SuraFlow-GutterGuard – a Solid Answer

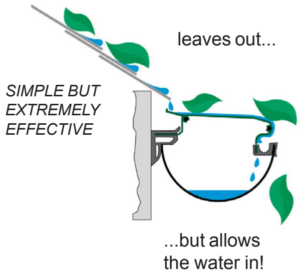
Mesh, either chicken wire or proper plastic grid, is a traditional way of cover of covering gutters, but it is a solution that is full of holes – literally! Like the brush system initially, it will be effective in stopping leaves from getting into the gutter, but it is not so good for pine needles or moss which can easily get through the mesh. And any leaves trapped onthe mesh will breakdown and find their way into the gutter. Much better to have a solid cover over the gutter from which the leaves, pine needles and moss blow off and onto the ground – which is exactly what SuraFlow-GutterGuard does. But how do we get the water to drain into the gutter?

The Coanda Effect

In 1930, Henri-Marie Coanda (1885-1972) a Romanian aerodynamicist observed that a stream of air (or any liquid, including water) will follow a neatly curving surface. This is the principle that creates lift over the top surface of a wing and allows an aeroplane to fly. You can see, and feel, this effect for yourself of you take a spoon and hold the back of it i to a stream of water running from a tap. If you hold the spoon firmly you will see the stream of water follow the curvature of the spoon. If you hold it lightly you will feel the spoon being pulled in to the stream of water – the ‘lift’ effect. However in the building industry this effect is not always desirable and is the reason why you will find either a groove or a drip-edge underneath window and door sills to stop water running back to the wall.

It is the Coanda Effect that SuraFlow-GutterGuard utilises to get the rainwater from the roof and into the gutter. The nose of the guard profile is specially curved to ensure water runs round it and flows into the gutter from its vertical leg. This is enhanced by the low-wax anodised surface of the aluminium profile which ensures that the water ‘wets out’, promoting laminar flow, rather than beading as it crosses the surface. This combination is so efficient that it can handle flow rates over 30 times the maximum intensity of rainfall (75mm per hour) that we have in the UK.

Does It Really Work?



Yes! SuraFlow-Guard has been installed on properties for over thirteen years, in some of the toughest environments and we haven’t had a gutter block with debris yet. In fact, when we inspected some of our earliest installations we’ve found the gutter to be clear and flowing apart from a small amount of sediment waiting to be washed away in heavy rain. We don’t claim to keep 100% of debris out of the gutters because some, such as tile dust, sediment, seeds and blossom will in go round the curved nose of the guard whilst in suspension in the water, but the amount is so inconsequential that it will wash away easily and insufficient to affect the performance of downpipes or soakways.

Availability

SuraFlow-GutterGuard is available direct from SuraFlow:

Supply Only - We can supply SuraFlow-GutterGuard to be fitted by professional contractors. Fitting the guard itself is extremely easy but the gutters must be installed to allow the guard to sit between the roof tile and the top of the gutter.

Pricing

For current pricing for either Supply Only, or to discuss installation options call: 01794 389 589

Specifications for the pre-installation of gutters

Size and Types of Gutters
The gutters to be installed can be of PVCu material with an opening width of not less than 112mm or more than 130mm.

Some types of PVCu OG profile gutters are incompatible with SuraFlow-GutterGuard. In any case PVCu OG profile gutters are not recommended because of problems due to the profile's shape not providing adequate pressure to seal the rubber gaskets. Where an OG profile is required SuraFlow recommend continuous aluminium gutters which are compatible with SuraFlow-GutterGuard.

Please contact us if you need confirmation that the gutter intended for installation are compatible.

Installing the Gutters
A gap of at least 35mm is required above the top of the gutter to facilitate the installation of SuraFlow-GutterGuard. This gap applies to not only to the distance between the top of the gutter and the tiles but to other features of the roofline such as valleys and gullies, eaves trays, etc. which may impinge on the fitting of SuraFlow-GutterGuard

The use of rigid eaves trays is not advised on new build or roof refurbishments as these are currently designed in such as way as to 'drop' into the gutter. As this feature is not required for the function of SuraFlow-GutterGuard an alternative flexible or DPC type of felting is recommended.

Care should be taken when installing gutters to ensure that there is, where necessary, adequate fall. In some installations there will need to be a compromise between running a fall whilst maintaining the minimum 35mm gap and retaining the aesthetics of the roofline without going below the level of the fascia. Because flow rates can be maintained by fitting SuraFlow-GutterGuard and keeping out the debris which can substantially reduce them, the amount of fall required can be reduced or the gutters can be set to level.

Tile Overhang
It is recommended that tile overhang, when measured perpendicular from the fascia board, should not be less than 40mm or exceed 70mm for 112mm gutters.

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