

Sandbags v Kitemarked property level flood protection and temporary defences

It has long been a 'soap box issue' of mine that we should ban the use of the humble and inefficient sandbag, which is, let's face it, no more than a 'comfort blanket' when a flood emergency happens. They are difficult to fill (unless you happen to have a sandbag filling machine); they are time-consuming to fill (around an hour per 12 sandbags) plus delivery time on top. At individual property level they do no more than filter the water and certainly should not be considered as a 21st century solution to flooding.

Words: *Mary Dhonau OBE, Chair, Flood Protection Association.*

Sandbags are extremely heavy, even when dry, and can be beyond the capability of most ordinary householders to lift into place, let alone the elderly and vulnerable. They are not easy to store and quickly become unusable – many people have told me that when they've gone to collect them in time of flood, the bags have disintegrated when they are picked up. Once used, sandbags are even more difficult to handle, as the water increases the weight still further, and are also likely to be contaminated with sewage (I still shudder as I recall a large and malevolent-looking toadstool I saw growing on one at a neighbour's house), which adds to the disposal problems. The magician Paul Daniels, who has successfully protected his home from the recent floods, tweeted me recently and said, 'We used sandbags in the 2003 floods and they made a worse mess than the river silt. Never again. There are much better methods'.

I would like to see more use of both temporary defences and property level protection.

Protecting property

Property level protection (especially the products



Photo: Carl Lewis, Tonbridge.



A kitemarked barrier in front of a door with failing sandbag protection.

that have obtained a Kitemark) can be a very effective way of protecting a property. Up to 5000-litres of water an hour can enter a home via the airbricks alone, so simply by fitting airbrick covers (or better still, replacing your airbricks with the self-closing variety) you can prevent floodwater entering your property by that route. Use a kitemarked barrier in front of your doors, or change your front door for a flood-proof one (these are 'normal' looking doors that, once locked, become full time flood doors).

Maintenance of a property is essential too, as water will always find the weakest point of entry. Check the mortar is in good condition on your brickwork and the sealant around any pipe work is sound. There are also a number of good waterproof sealants available that allow the house to breathe, but also act as a barrier to flood water. Anti back flow valves can stop sewage entering your property.

Temporary defences

Temporary defences are far quicker to erect than thousands of sandbags and can be reused on many occasions:

Rapidam: 100m length at 0.5m or 1m high can be deployed by four operatives in 30 minutes and could easily deal with an overtopping river. Consider that 10m x 0.5m sections could be carried on fire tenders to protect individual properties and divert floodwater away. Rapidam is re-usable again and again: it has in excess of a 10-year product life, including wear and tear, and repair. It is simply cleaned, dried and stored away for the next emergency. Because of its speed of deployment, low

human resource requirement and longevity of use, its overall purchase and operating cost will be less than that of sandbags and army personnel.

The IBS K-System is a temporary flood protection barrier, which is completely mobile and does not require any permanent fixings; it can be installed on tarmac, up to a flood height of 1.3m meaning it can be used flexibly in different locations. The K-system works by making use of the pressure of the flood water, which applies a downward force on the beams, thus ensuring the stability and flood protection properties of the barrier. The erection and dismantling of the K-

System requires only a small number of people and minimal time; depending on the flood height required, four people can install 100m of flood wall in approximately one hour once the system is on site.

As a comparison, to install 100m of sandbags to a height of three feet would take four people approximately 70 hours and would require 14,000 sandbags. Due to its design and low number of parts, the IBS K-System is especially suited to installation in adverse weather conditions, including at night and in the rain.



Protecting people

I would like to see emergency services personnel trained in the deployment of such systems, which would help to ensure their time was used to maximum effect. They would also be protecting people from being flooded without giving people the false hope that the humble and inefficient sandbag would protect them!

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For more details of what can be done to protect a home from being flooded visit www.thefpa.org.uk