DOORSHIELD™ USER MANUAL



General Flood Advice

A flood protection risk assessment of the property should be professionally undertaken (e.g by a qualified flood products installer, a building surveyor etc) to ensure all possible routes of water entry have been identified and that no flood protection measures deployed pose a risk to the structural integrity of the building.

More information can be found from these independent sources:

| Environment Agency website (https://www.gov.uk/government/organisations/environment-agency)
| Scottish Environment Protetction Agency (https://www.sepa.org.uk/environment/water/flooding/)
| National Flood Forum (https://nationalfloodforum.org.uk/)

Scottish Flood Forum (http://www.scottishfloodforum.org/)

Be sure to sign up for flood warnings in your area.

Register at https://www.gov.uk/sign-up-for-flood-warnings
or call Floodline on 0345 988 1188 (Floodline not available in Northern Ireland).

About the DoorShield™

1. What it is: the DoorShield™ is a doorway and building aperture flood protection product for the temporary mitigation of flood risk to a domestic or commercial property. The DoorShield™ should be seen as part of a suite of measures to reduce the risk of flood water entering a property.

Flood types/durations:

J	The DoorShield™ is suitable for both short term and long term use (e.g. for a flood event lasting
	several weeks).
J	It is effective in both saltwater and non-saltwater flooding, including in polluted or contaminated
	waters.
J	It is a manual product (that is, it needs to be set up at the time of each potential flood event) and
	so is not suitable for protection against flash flooding.

2. When and how to use:

J	The DoorShield™ should be fitted to the doorway or aperture, when a flood event is predicted or
	expected. Follow the instructions in the Deployment Guide.
J	To ensure plenty of warning time, please sign up for Flood Alerts using the information above.
J	At installation a full demonstration will be given on how to set up and remove the DoorShield™.
	A reasonably able-bodied adult should be able to set up the DoorShield™, even working alone,
	so please ensure all suitable residents participate in the demo.
	J It there is no one in the building who is confident to deploy the DoorShield™ then please ensure
	a neighbour, family member or other suitable person has participated in the demo and has
	access to where the DoorShield™ is stored at all times.
J	The DoorShield™ should not be removed until the floodwaters have fully receded and the flood

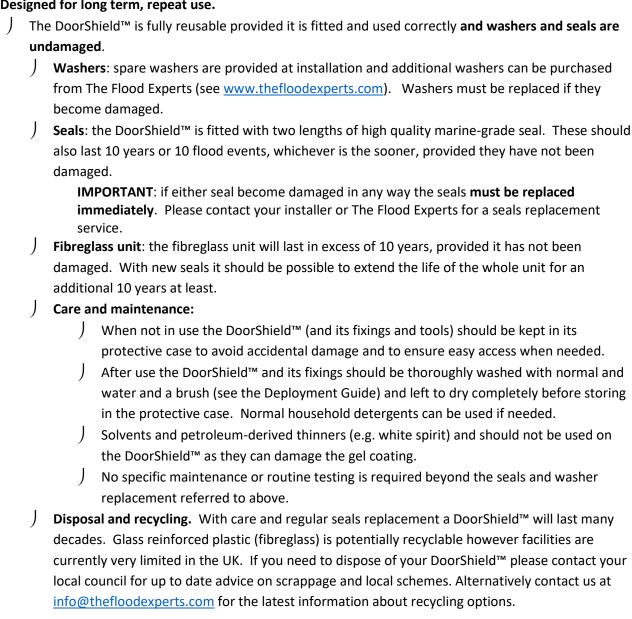
threat is past.

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3. Designed for long term, repeat use.



4. Initial installation:

- Each DoorShield™ must be professionally measured and fitted by an approved installer. Each DoorShield™ is then specific to the doorway or aperture that it has been installed for. This ensures a precision fit and maximum effectiveness.
- The DoorShield™ can be installed to suitable brick, masonry, concrete and many types of render. It cannot be installed to metal or wood surrounds. Prior to installation the installer will pre-assess the building and advise whether any remedial work (e.g. pointing, brick replacement) requires to be done to make the aperture surround suitable.
- **IMPORTANT**: The DoorShield[™] cannot be used on any other door or aperture other than the one it has been professionally measured and fitted to.

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- Do not change, enlarge or add to the holes drilled by the installer on the DoorShield™. This will
 invalidate material warranties, make the unit ineffective and damage the unit.
- o Do not change, enlarge or add to the holes drilled by the installer on the door or aperture surround. This will also invalidate any warranty and make the unit ineffective.
- Do not attempt to drill holes for the DoorShield™ on any other door or aperture surround. The DoorShield™ should only be used on the doorway or aperture to which it has been professionally fitted.

5. Testing information

i. Independent testing as part of the BSi Kitemark process

This product has been tested against the standard set of tests as defined in PAS 1188-1:2014 which represent typical conditions that might be experienced during a flood in the UK. This includes testing the product for leakage under static water levels [to a designated water depth of 600mm] above aperture threshold level, waves up to 0.1m high, and parallel currents up to 1.0 m/s. The testing undertaken under this PAS excludes all other components of the flood protection system.

Conformance of the product to PAS1188-1:2014 does not mean it is suitable for all buildings or locations. If the user has any uncertainty about the suitability of a product they should seek professional guidance.

ii. Independent Test results - summary

During independent testing of the Standard size DoorShield™ (1.16m wide) conducted by HR Wallingford as part of the BSi Kitemark testing process the **maximum** recorded leakage rates were negligible:

Static test	0.007 litres/hour/metre
Wave test	0.003 litres/hour/metre
Current test	0.002 litres/hour/metre

iii. What do these mean?

The test facility simulates various flood scenarios - static (standing) water, water where waves are present and flowing water (the Current test). They measure how many litres of water per hour leak through, for every metre of width of the aperture.

So, to understand these results for the Current test, imagine that the door is exactly 1 metre wide. Then with the DoorShield™ fitted and floodwater flowing past it, only 0.002 litres of water seeped through in a single hour.

And to put that in context – the allowable limit is half a litre (0.5 litres/hour/metre).

iv. Our own testing – during development of the DoorShield™ we were able to subject it to long term testing. In these tests the DoorShield™ successfully withstood 8 weeks of continuous, static water flood conditions where it was subjected to water pressure of 34 tonnes of water. There was no measurable leakage at all during this time.

6. Quick reference deployment trouble-shooting guide

ISSUE	CHECKS AND REMEDIES
I can't line up the DoorShield™ holes with my door's masonry holes	 Check the DoorShield™ is the correct way up. The seals on the long edge need to be positioned under the door. Check that you have removed all the masonry plugs and are lining up the DoorShield™ against all the necessary holes. Due to variations in brickwork the holes may not be equal distances from each other. Check that you are fitting the correct door. Each door surround will be slightly different so each DoorShield™ has holes in slightly different places to ensure a precision fit. Check on the inside of the DoorShield™ which door it is for (e.g. Front Door, Back Door etc).
I can't remove the masonry plugs	 The masonry plugs are removed using the supplied size 4 Allen key. If the Allen key has been lost then the masonry plugs should be carefully removed using a large pair of pliers, trying not to damage the plug.
I can't get the bolts into the masonry holes	 If the bolts won't go in at all check that the correct bolts are being used. If the bolts will only go in partway check that there is no object in the hole causing an obstruction. This can be checked by observation or by measurement – the hole depth should be 38mm. If part of the masonry plug has become stuck in the hole then screw a long screw firmly into it to hook it and pull it out carefully using pliers.
I can't get the DoorShield™ flush with the wall	 Make sure there are no obstructions between the wall and the DoorShield™. This could be something like a small branch or stone. Do not risk crushing or damaging the seals by tightening up the bolts without removing any such small obstructions.

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Further information

- For more infor and our up to date FAQs please see our website <u>www.thefloodexperts.com</u>
 Additional document copies:
 - o Deployment Guide and User Manual
 - electronic copies can be downloaded from our website (<u>www.thefloodexperts.com</u>)
 - additional physical copies can be obtained by writing to us at:

The Flood Experts 1/1 Portman Road Bournemouth BH7 6EU

Jet If you have any questions about the DoorShield™ please contact us – you can write to us at the above address and our full contact details, including telephone numbers, are on our website www.thefloodexperts.com