BS 851188-1:2019+A1:2021

BSI Standards Publication

Flood resistance products

Part 1: Building products — Specification

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Published by BSI Standards Limited 2021

ISBN 978 0 539 18411 2

ICS 91.120.99

The following BSI references relate to the work on this document:
Committee reference CB/501
Drafts for comment 19/30372280 DC; 21/30440329 DC

Amendments/corrigenda issued since publication

Date	Text affected
30 November 2021	A1: see Foreword

Contents

Summary of pages
This document comprises a front cover, an inside front cover, pages I to IV, pages 1 to 23, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 September 2019. It was prepared by Technical Committee CB/501, *Flood risk and watercourses*. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

BS 851188-1:2019 superseded PAS 1188-1:2014 and PAS 1188-3:2014, which have been withdrawn.

BS 851188-1:2019+A1:2021 supersedes BS 851188-1:2019, which is withdrawn.

Relationship with other publications

BS 851188, *Flood resistance products*, is issued in two parts:

- *Part 1: Building products – Specification*; and
- *Part 2: Perimeter barrier systems – Specification*.

Attention is drawn to the need to consider the prevention of the ingress of flood water into buildings through building fabric (i.e. walls and floors), horizontal pipes, waste water fittings and floor gullies. Anti-flood devices for buildings are covered in BS EN 13564-1.

BS 851188-1 can be used in conjunction with CIRIA *Code of practice and guidance for property flood resilience* [1]. This document sets out a complete methodology for the delivery of flood resilience and provides guidance for flood hazard and building assessment, design, installation and aftercare of flood resilience products and associated measures.

Information about this document

Text introduced or altered by Amendment No. 1 is indicated in the text by tags A1 A1. Minor editorial changes are not tagged.

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Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of The Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

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Particular attention is drawn to the following specific regulations and associated documents:

- Statutory Rules of Northern Ireland 2012, Technical Booklet L [2];
- Statutory Rules of Northern Ireland 2012, Technical Booklet E [3];
- Statutory Rules of Northern Ireland 2012, Technical Booklet K [4];
- Statutory Rules of Northern Ireland 2012, Technical Booklet R [5];
- Building Regulations (England and Wales) 2010, Approved Document B [6];
- Building Regulations (England and Wales) 2010, Approved Document C [7];
- Building Regulations (England and Wales) 2010, Approved Document F [8];
- Building Regulations (England and Wales) 2010, Approved Document H [9];
- Building Regulations (England and Wales) 2010, Approved Document J [10];
- Building Regulations (England and Wales) 2010, Approved Document M [11];
- Building Standards (Scotland) Regulations 2004, Technical Handbook 2017: domestic buildings [12];
- Building Standards (Scotland) Regulations 2004, Technical Handbook 2017: non-domestic buildings [13];
- Equality Act 2010 [14];
- Disability Discrimination Act 1995 (Northern Ireland) [15];
- Regulatory Reform (Fire Safety) Order 2005 [16];
- Fire Safety (Scotland) Regulations 2006 [17];
- Fire Safety Regulations (Northern Ireland) 2010 [18];

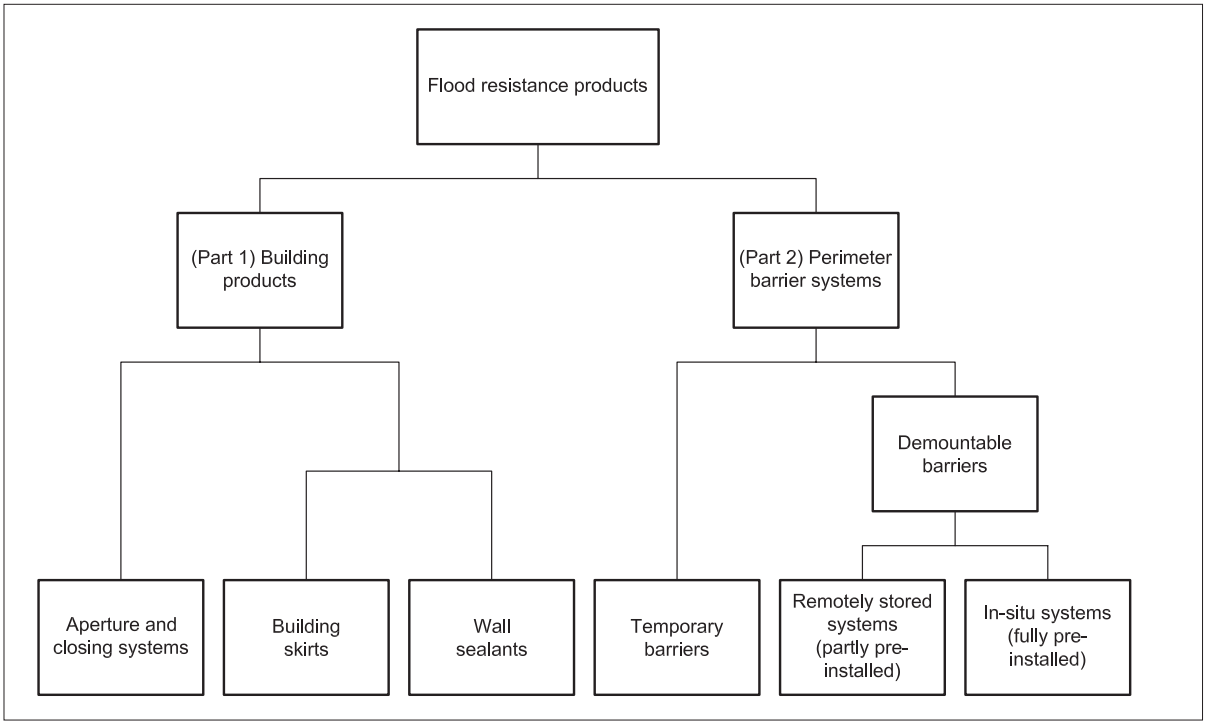
- Gas Safety (Installation and Use) Regulations 1998 [19]; and
- Construction (Design and Management) Regulations 2015 [20].

NOTE For rooms containing gas appliances, attention is drawn to the Gas Safety (Installation and Use) Regulations 1998 [19] and manufacturers' instructions regarding the free circulation of air both in and out of the building. In such instances special care is to be taken with the use of flood resistant airbricks/air vents and airbrick/air vent resistance products. It is important that airbrick/air vent flood resistance products are removed as soon as floodwaters have receded so that sub-floor ventilation is maintained.

Introduction

The general classification of flood resistance products and the relationship between groups of products with each other is shown in Figure 1. Figure 1 also indicates which part of the BS 851188 series is relevant for each classification.

Figure 1 — *Flood resistance products: general classification*



NOTE 1 Attention is drawn to the need to ensure a safe evacuation of persons in the event of an emergency and for access and egress of persons with impaired movement. This is particularly important for basements, where there is a risk that flooding could occur rapidly and to a depth sufficient to be a risk to life. In basement situations, consideration can be given to other measures such as water level alarm systems and automatic pumping systems.

NOTE 2 Measures including the installation of flood barriers or any building alterations that are designed to improve the resilience of the building to flood water should not diminish the building's capacity to facilitate the evacuation of occupants or expel through ventilation any potentially harmful gases, fumes and vapours.

NOTE 3 When a designer considers applying a product to a building, the design and the intended method of deployment of the product with its designated maximum water depth (DMWD) should not adversely affect the structural integrity of the building. Attention is drawn to the Construction (Design and Management) Regulations 2015 [20] and parts relevant to the roles and responsibilities of designers.

1 Scope

This British Standard specifies requirements for the designation, testing, factory production control, installation manual, deployment instructions, user manual and marking for different types and configurations of flood resistance products.

This British Standard is applicable to flood resistance products intended for use in the temporary sealing of building apertures and entrances to properties, including boards, skirt and wall sealant systems, and flood doors, in the event of static flood water rising above a minimum level of 540 mm above aperture threshold level, except where they are designed to completely cover or replace small apertures, such as airbricks or air vents. The flood resistance products are expected to be effective at flood heights from ground level to the designated maximum water depth (DMWD). It covers

