

## wedi Systems (UK) Ltd

Unit 4 Mercury Park  
Mercury Way  
Trafford Park  
Manchester M41 7LY

Tel: 0161 864 2336 Fax: 0161 864 1323

e-mail: technical@wedi.co.uk

website: www.wedi.co.uk



**Agrément Certificate**

**14/5126**

Product Sheet 1

### WEDI SHOWER ELEMENTS

### WEDI FUNDO SHOWER ELEMENTS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to wedi<sup>(2)</sup> Fundo Shower Elements, a range of shower elements for use in tiled floor-level built-in shower systems in private residential and public buildings.

(1) Hereinafter referred to as 'Certificate'.

(2) 'wedi' is a registered trademark.

#### CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



#### KEY FACTORS ASSESSED

**Watertightness** — the products will provide a waterproof shower area (see section 6).

**Bond strength** — when used with a suitable adhesive the adhesion of the products to the substrate, and of the tiles to the products, is satisfactory (see section 7).

**Resistance to mechanical damage** — the products have satisfactory resistance to mechanical damage (see section 8).

**Durability** — the products will have a service life of at least 10 years (see section 11).



The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 9 November 2018

John Albon – Head of Approvals  
Construction Products

Originally certificated on 6 June 2014

Claire Curtis-Thomas  
Chief Executive

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at [www.bbacerts.co.uk](http://www.bbacerts.co.uk)  
Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

#### British Board of Agrément

Bucknalls Lane  
Watford  
Herts WD25 9BA

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Page 1 of 10

tel: 01923 665300  
[clientservices@bbacerts.co.uk](mailto:clientservices@bbacerts.co.uk)  
[www.bbacerts.co.uk](http://www.bbacerts.co.uk)

## Regulations

In the opinion of the BBA, wedi Fundo Shower Elements, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



### The Building Regulations 2010 (England and Wales) (as amended)

**Requirement:** C2(d)

Comment:

**Resistance to moisture**

The products will contribute to a floor satisfying this Requirement. See section 6 of this Certificate.

**Requirement:** M1

Comment:

**Access and use**

The products will contribute to satisfying this Requirement. See section 9 of this Certificate.

**Regulation:** 7

Comment:

**Materials and workmanship**

The products are acceptable. See section 11 and the *Installation* part of this Certificate.



### The Building (Scotland) Regulations 2004 (as amended)

**Regulation:** 8(1)

Comment:

**Durability, workmanship and fitness of materials**

The products are acceptable. See section 11 and the *Installation* part of this Certificate.

**Regulation:** 9

Standard: 3.12

Comment:

**Building standards applicable to construction**

Sanitary facilities

The products can contribute to satisfying this Standard, with reference to clause 3.12.10<sup>(1)</sup>. See section 9 of this Certificate.

Standard: 7.1(a)

Comment:

Statement of sustainability

The products can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

**Regulation:** 12

Comment:

**Building standards applicable to conversions**

All comments given for the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1<sup>(1)</sup> and Schedule 6<sup>(1)</sup>.

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



### The Building Regulations (Northern Ireland) 2012 (as amended)

**Regulation:** 23(a)(i)(ii)(iii)(b)(i)

Comment:

**Fitness of materials and workmanship**

The products are acceptable. See section 11 and the *Installation* part of this Certificate.

**Regulation:** 86(1)

Comment:

**Sanitary appliances**

The products can contribute to satisfying this Regulation. See section 9 of this Certificate.

## **Construction (Design and Management) Regulations 2015 Construction (Design and Management) Regulations (Northern Ireland) 2016**

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections:                   1 *Description* (1.3) and 3 *Delivery and site handling* (3.1 and 3.3 to 3.7) of this Certificate.

### **Additional Information**

#### **CE marking**

The Certificate holder has taken the responsibility of CE marking the products, in accordance with ETAG 002 : 2002, Part 3. An asterisk (\*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

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### **Technical Specification**

#### **1 Description**

1.1 wedi Fundo Shower Elements are a range of shower trays, consisting of a proprietary rigid extruded polystyrene core coated on both faces with a polymer-modified cementitious coating reinforced with a glassfibre mesh.

1.2 Each shower element is manufactured with falls towards the drain outlet.

1.3 The shower elements are available in the range of shapes and standard sizes detailed in Table 1. Other sizes are available by special order.

Table 1 Product range

Range	Shape	Size (mm)*/weight (kg)	Drain type (location)
Fundo Primo	Square/rectangle	900 x 900 x 40/5.1	Round (central/offset)
		1000 x 1000 x 40/8.4	
		1200 x 1200 x 40/8.7	
		1500 x 1500 x 40/13.5	
		900 x 750 x 40/4.1	
		1200 x 900 x 40/5.7	
		1400 x 900 x 40/7.6	
		1400 x 1000 x 40/8.5	
		1500 x 900 x 40/8.1	
		1500 x 1000 x 40/9.1	
		1800 x 900 x 40/13.6	
Fundo Ligno	Square/rectangle (Tapered edge)	900 x 900 x 20/3.3	Round (central/offset)
		1200 x 1200 x 20/5.1	
		1500 x 1500 x 20/8.8	
		1200 x 900 x 20/4.5	
		1600 x 900 x 20/6.1	
Fundo Riofino	Square/rectangle	900 x 900 x 50/5.5	Channel (central)
		1000 x 1000 x 50/6.8	
		1200 x 1200 x 50/9.8	
		1200 x 900 x 50/7.3	
		1800 x 900 x 50/11.4	
Fundo Riolito	Square/rectangle	900 x 900 x 50/5.0	Channel (lateral)
		1200 x 1200 x 50/8.8	
		1200 x 800 x 50/5.9	
		1200 x 900 x 50/6.7	
		1200 x 1000 x 50/7.4	
		1800 x 900 x 60/10.4	
Fundo Riolito Neo	Square/rectangle	900 x 900 x 50/ 6.2	Channel (lateral)
		1000 x 1000 x 50/7.2	
		1200 x 1200 x 50/11.4	
		1200 x 800 x 50/6.7	
		1400 x 900 x 50/9.2	
		1200 x 900 x 50/6.7	
		1800 x 900 x 50/10.4	
		1600 x 1000 x 50/11.9	
		1200 x 1000 x 50/9.11	
Fundo Plano Complete system including integrated drain	Square/rectangle	900 x 900 x 65/7.0	Round (central/offset)
		1000 x 1000 x 65/7.2	
		1200 x 1200 x 65/10.6	
		1200 x 900 x 65/8.6	
		1200 x 900 x 65/8.9	
		1400 x 900 x 65/9.8	
		1600 x 1000 x 65/10.7	
Fundo Plano Linea Complete system Including integrated drain	Square/rectangle	1200 x 800 x 70/10.3	Channel (lateral)
		1200 x 900 x 70/10.9	
		1200 x 900 x 70/10.9	
		1200 x 1000 x 70/12.3	
		900 x 900 x 70/9	
Fundo Integro Complete system Including intergrated drain	Square/rectangle	900 x 900 x 90/7.6	Round (central/offset)
		1200 x 1200 x 90/11.6	
		1200 x 900 x 90/10.3	
		1400 x 900 x 90/12.2	
		1800 x 900 x 90/15.0	
Sloping Boards Primo	rectangle	600 x 1200 x 40-46/5.3	N/A
		600 x 1200 x 46-52/5.6	

Table 1 Product range (continued)

Range	Shape	Size (mm)*/weight (kg)	Drain type (location)
Sloping Board Riolito Neo, Riolito, Riofino	Rectangle	600 x 1200 x 50-60/6.0	N/A
Discreto Riolito Neo, Riolito	Attachment wall element	800 x 180 x 76/3.4	N/A
		900x 180 x 76/3.6	
		1000 x 180 x 76/3.9	
Fundo Borgo	Quadrant	900 x 900 <sup>(2)</sup> x 40/4.4	Round (offset)
		1000 x 1000 <sup>(2)</sup> x 40/5.5	
Fundo Trollo	Circular	∅1140 <sup>(1)</sup> x 40/10.6	Round (central)
Fundo Nautilo	Nautilus spiral	1890 x 1515 <sup>(2)</sup> /13.8	Round (central) <sup>(3)</sup>

(1) Diameter.

(2) Will fit in a square/rectangle with these dimensions.

(3) Located centrally within the circular section.

1.4 Ancillary items necessary for installation of the products and included in this assessment are:

- wedi 610 Adhesive Sealant — a one-component, moisture-cured elastomeric adhesive for sealing joints between the shower trays and wedi Building Boards
- wedi 520 Membrane Adhesive — a two component flexible waterproofing compound used in conjunction with wedi Sealing Tape to waterproof joints between the shower elements and wedi Building Boards
- wedi Building Boards — rigid extruded polystyrene foam boards, finished on both sides with a polymer-modified cement coating reinforced with a glassfibre mesh (the subject of BBA Certificate 00/3675)
- wedi Sealing Tape — used in conjunction with wedi 610 adhesive sealant or wedi 520 Membrane Adhesive to seal joints between the shower trays and wedi building boards
- wedi Self-Adhesive Reinforcement Tape — used over joints in dry areas
- Fundo Sealing Sets [includes wedi 520 Membrane Adhesive, wedi Sealing Tape (10 m), and 2 x internal corners].

1.5 Other items or components which may be used with the products, but are outside the scope of this Certificate, are:

- flexible waterproof tile adhesive conforming to BS EN 12004 : 2007
- flexible waterproof grout conforming to BS EN 13888 : 2009
- suitable floor tiles
- wedi Fundo Drain Elements — a range of drain elements for use with wedi Fundo Shower Elements
- wedi sealing corners
- self-adhesive reinforcement tape — for application over joints between wedi Building Boards in dry areas
- wedi Fixing Clips and Brackets
- sound impact deadening boards
- sloping boards
- easysets to aid installation.

Details of suitable products/specifications must be obtained from the Certificate holder.

## 2 Manufacture

2.1 wedi Fundo Shower Elements are manufactured by cutting and milling extruded polystyrene boards to the required size, and applying a glassfibre mesh-reinforced synthetic mortar and fixing drain and pipe connecting collars.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated

- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of wedi GmbH has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by DAR/TüV Rheinland (Certificate 042158).

### 3 Delivery and site handling

3.1 The shower elements are packed individually in cardboard boxes.

3.2 The products must be stored flat, under cover and protected from heat sources, direct sunlight and moisture.

3.3 wedi 610 Adhesive Sealant is supplied in 310 ml plastic cartridges.

3.4 wedi 520 Membrane Adhesive is supplied in two components, a powder component and liquid component. The powder component is supplied in 20 kg paper sacks and the liquid component is supplied in 10 litre plastic containers.

3.5 wedi Sealing Tape is available in rolls of 10 m x 120 mm and 50 mm x 120 mm.

3.6 wedi Self-Adhesive Reinforcement Tape is available in rolls of 25 m x 125 mm and 50 m x 600 mm.

3.7 The Certificate holder has taken the responsibility of classifying and labelling the products under the *CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

## Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on wedi Fundo Shower Elements.

### Design Considerations

#### 4 Use

4.1 wedi Fundo Shower Elements are satisfactory for use as built-in shower trays fully supported on stable timber or concrete floors.

4.2 The products must be finished with non-slip tiles. The Certificate holder must be consulted for suitable products.

#### 5 Practicability of installation

The products must be installed by contractors trained by the Certificate holder.

#### 6 Watertightness



6.1 wedi Fundo Shower Elements can be used as part of a system to provide a waterproof shower enclosure.

6.2 wedi Fundo Drain Elements, when installed in accordance with the Certificate holder's instructions, will form a watertight seal to wedi Fundo Shower Elements.

#### 7 Bond strength

7.1 When a suitable adhesive is used, the adhesion of the shower elements to the substrate, and of the tiles to the shower element, is satisfactory.

7.2 The advice of the Certificate holder must be sought for suitable flexible cementitious adhesives and waterproof grouts.

## 8 Resistance to mechanical damage

8.1 The resistance to compression of the shower elements is satisfactory and capable of resisting the uniformly distributed loads likely to be experienced in service with minimal deflection.

8.2 The level of resistance to concentrated loads will depend on the size and strength of the tiles used and must be carefully considered, especially in special cases, eg when wheelchair access is required.

## 9 Access and use



9.1 Installations of the products can be designed to provide step-free access to shower facilities and facilitate access, eg by wheelchairs.

9.2 The products are manufactured with designed falls to the outlet to ensure efficient drainage. Care must be taken to retain the falls when fixing the elements and after tiling.

## 10 Maintenance

Installations will not require maintenance other than cleaning of tiles. Drain traps must be regularly cleared of obstructions to ensure satisfactory drainage.

## 11 Durability



11.1 Under normal conditions, wedi Fundo Shower Elements will have a service life of at least 10 years.

11.2 The performance and durability of wedi Fundo Drain Elements have not been assessed and are outside the scope of this Certificate.

## Installation

### 12 General

12.1 wedi Fundo Shower Elements must be installed fully supported on a stable substrate in accordance with the Certificate holder's installation instructions and this Certificate.

12.2 Existing floors must be in good condition. Damaged joists in wooden floors must be repaired or replaced prior to installing the products.

12.3 The products must be fully bonded to the substrate using a flexible cementitious tile adhesive approved by the Certificate holder, and in accordance with the adhesive manufacturer's instructions for mixing and use.

12.4 All joints must be sealed and taped with wedi 610 Adhesive Sealant and wedi Self-Adhesive Reinforcement Tape. In wet areas, joints must be sealed with wedi 610 Adhesive Sealant and wedi Sealing Tape, or wedi 520 Membrane Adhesive and wedi Sealing Tape.

12.5 Only wedi Fundo Drain Elements must be used with the products, fixed in accordance with the Certificate holder's instructions.

12.6 Drainage pipes must be carefully positioned and correctly sized to accept the outlet pipe from the drain element. Reference should be made to BS EN 12056-1 : 2000 and BS EN 12056-2 : 2000, and any special requirements for the drain used.

## 13 Procedure

13.1 The lower part of the drain element, with the appropriate length of connecting pipe, is positioned in a made-to-size recess and connected to the existing drainage pipe. Care must be taken to ensure that the necessary distance between the drain flange and surrounding screed is correct.

13.2 The recess is filled with a suitable mortar and finished at the required height. The drain element must be protected during this operation by inserting the protective cap tool.

13.3 Before the infill mortar has set, the drain protection cap is removed and the wedi Fundo Shower Tray is carefully and loosely placed to check the correct positioning of the drain. If necessary, the position of the drain must be adjusted before the mortar sets.

13.4 When the position of the drain is correct, and the infill mortar cured, the upper part of the drain element is fixed to the shower tray in accordance with the Certificate holder's instructions.

13.5 The bottom face of the shower tray is fully coated with a cement-based flexible tile adhesive and combed with a middle-sized bed trowel.

13.6 The shower tray is positioned over the prepared recess so that the main sealing collar is located, and pressed exactly into the drain body, ensuring that the tray is truly horizontal in all directions to retain the built-in falls.

13.7 The plastic frame to receive the drain grid is bonded into the shower tray using the tile adhesive, if necessary adjusting the height of the grid frame extension collar to take account of the thickness of the tiles to be used.

13.8 The shower tray is tiled using an approved cement-based flexible tile adhesive, ensuring, particularly when using tiles larger than 10 x 10 cm, that the valleys of the shower tray are reflected on the grout line to retain the built-in falls for drainage.

## 14 Repair

14.1 Detached tiles must be replaced immediately by cleaning the area to be repaired and re-tiling in accordance with section 13.8.

14.2 In the event of significant damage to any wedi Fundo element, the Certificate holder must be consulted for advice on a suitable repair method. In extreme cases, replacement may be required.

## Technical Investigations

## 15 Tests

15.1 Tests were carried out to determine:

- watertightness of the wedi Fundo Drain Elements to wedi Fundo Shower Elements
- watertightness of joints sealed with wedi 520 Membrane Adhesive used in conjunction with wedi Sealing Tape
- resistance to mechanical damage of integrated drain elements after repeated application of load.

15.2 An assessment was made (leading to the issue of ETA 13/0385) of test results relating to the wedi Watertight Kit for wet room floors and walls based on watertight boards, including wedi Fundo, to establish:

- bond strength
- watertightness
- dimensional stability
- crack bridging ability of the wedi Fundo elements
- resistance to temperature
- resistance to water
- resistance to alkalinity.



## 16 Investigations

16.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

16.2 Visits were carried out to existing installations and a site in progress to assess the practicability of installation of the products.

### Bibliography

BS EN 12004 : 2007 *Adhesives for tiles — Requirements, evaluation of conformity, classification and designation*

BS EN 12056-1 : 2000 *Gravity drainage systems inside buildings — General and performance requirements*

BS EN 12056-2 : 2000 *Gravity drainage systems inside buildings — Sanitary pipework, layout and calculation*

BS EN 13888 : 2009 *Grout for tiles — Requirements, evaluation of conformity, classification and designation*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

ETAG 002 : 2002 *Structural Sealant Glazing Systems Part 3 : Systems incorporating profiles with thermal barrier*

### 17 Conditions

#### 17.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

17.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

17.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

17.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

17.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

17.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.