



## Designated according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2020

UK Technical Assessment	UKTA-0836-22/6491 of 25/11/2022
Technical Assessment Body issuing the UK Technical Assessment:	British Board of Agrément
Trade name of the construction product:	LUX ELEMENTS WATERTIGHT SOLUTION
Product family to which the construction product belongs:	Product Area Code 03  Watertight covering kit based on inherently watertight boards for wet room floors and walls
Manufacturer:	LUX ELEMENTS GmbH & Co. KG An der Schusterinsel 7 51379 Leverkusen Opladen Germany
Manufacturing plant(s):	LUX ELEMENTS GmbH & Co. KG An der Schusterinsel 7 51379 Leverkusen Germany  LUX ELEMENTS GmbH & Co. KG Maybachstraße 21 51381 Leverkusen Germany
This UK Technical Assessment contains:	9 pages including 2 annexes which form an integral part of this assessment
This UK Technical Assessment is issued in accordance with The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 on the basis of:	UKAD 030437-00-0503: <i>Watertight covering kits based on inherently watertight boards for wet room floors and/or walls</i>

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## **1 Technical description of the product**

LUX ELEMENTS WATERTIGHT SOLUTION is a watertight covering kit. The kit consists of the following components:

- Watertight board LUX ELEMENTS-ELEMENT-VK for walls and floors on the basis of an expanded polystyrene foam (EPS), on both sides coated with mortar on the basis of modified cement reinforced with a glass fibre fabric, in addition the water exposed side is covered with a waterproofing sheet on the basis of polyethylene reinforced with a polypropylene fleece. Main dimensions: Length: from 1250 to 2500 mm, Width: 600 mm, Thickness: from 12 mm to 100 mm. Other dimensions for length and width can be cut from the board.
- Watertight board LUX ELEMENTS-TUB for floors on the basis of an expanded polystyrene foam (EPS), both sides covered with mortar on the basis of modified cement reinforced with a glass fibre fabric, the water exposed side with an additional sealing on the basis of cement. The boards have an integrated slope in direction of a prefabricated penetration for the floor gully. The boards are available in different geometries and sizes. Main dimensions: Length: from 300 mm to 3000 mm Width: from 300 mm to 3000 mm Thickness: from 20 mm to 100 mm. Other dimensions for length and width can be cut from the board.
- Primer LUX ELEMENTS-COL-HSV, if necessary
- Adhesive LUX ELEMENTS-COL-AK for fixing the board on substrate
- Adhesive LUX ELEMENTS-COL-MK for fixing the joints between the boards
- Sealing tape LUX ELEMENTS-DRY-DB, width: 100 mm or
- LUX ELEMENTS-DRY-DBV, width: 120 mm
- Sealing sleeve for corners, floor gullies and penetrations: LUX ELEMENTS-DRY - DBIE/DBAE or LUX ELEMENTS-DRY-DBVIE/DBVAE leg length 105 mm to 120 mm; LUX ELEMENTS-DRY-DBDZM 120 mm x 120 mm or 150 mm x 150 mm; LUX ELEMENTS-DRY-DBBM, cut from a foil, at least 100 mm x 100 mm
- Sealing mass LUX ELEMENTS-DRY-ASK for fixing and embedding the sealing details
- Adhesives for tiles on the basis of cement mortar respectively of epoxy resin, CE-marked according EN 120041 : LUX ELEMENTS-COL-FLEX; SCHÖNOX CF; Sopro's No. 1.

The kit is intended to be used on a substrate and under a wearing surface, e. g. tiles. The wearing surface and its jointing material are not part of the kit but are considered during the assessment of the intended use of the product.

Annex A1 shows the system build-up and Annex A2 shows the sealing details.

## **2 Specification of the intended use(s) in accordance with the applicable UK Assessment Document (hereinafter UKAD)**

The intended use of the watertight covering kit under a wearing surface is to create a floor and wall watertight covering for indoor wet areas at operating temperature from 5 to 40°C.

The following uses are intended:

- Floor and/or wall surfaces with only occasional direct exposure to water, e. g. at a good distance from shower or bathtub;
- Floor and/or wall in shower areas or around bathtubs used for a few showers daily, e. g. in ordinary dwellings, multifamily houses and hotels;
- Floor and/or wall surfaces with exposure to water more frequent or of longer duration than normally anticipated in dwellings, e.g., public wet rooms, schools and sport facilities.

The watertight membrane is intended to be used on flexible substrates e. g. plywood, chipboard, gypsum, anhydrite or similar material vulnerable to water and on rigid substrates e. g. masonry or concrete.

The product should be used in connection with the following types of gullies: Plastics — type ABS and PE — with clamping ring and collar or prefabricated by LUX ELEMENTS

The gullies are not part of the kit. It is up to the responsibility of the user to use suitable products of the given type.

The performances given in Section 3 are only valid if the watertight covering kit is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this UK Technical Assessment is based lead the assumption of working life of the watertight covering kit of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

#### 3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

#### 3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to Fire	See Annex A1

#### 3.3 Health, hygiene and the environment (BWR 3)

Essential characteristic	Performance
Content and/or release of dangerous substances:	
• Tile Adhesives (UKCA marked)	Please refer to the declaration of Performance The product does not contain dangerous substances according to EOTA TR 034
• All other components	
Vapour permeability	See Annex A1, declared value
Watertightness	See Annex A1
Crack bridging ability	See Annex A1
Bond strength	See Annex A1
Scratching resistance	See Annex A1, declared value
Joint bridging ability	See Annex A1
Watertightness around penetration	See Annex A1
Non permeability at sealings	See Annex A1, declared value

#### 3.4 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Slipperiness	See Annex A1, declared value

#### 3.5 Protection against noise (BWR 5)

Not relevant.

#### 3.6 Energy economy and heat retention (BWR 6)

Not relevant.

#### 3.7 Sustainable use of natural resources (BWR 7)

No performance assessed.

#### 3.8 General aspects

The verification of durability and serviceability is part of testing the essential characteristics and by additional tests on the kit respectively on the components:

Essential characteristic	Performance
Dimensions stability	See Annex A1, declared value
Resistance to temperature	See Annex A1, category
Resistance to water	See Annex A1, category
Resistance to alkalinity	See Annex A1, category
Resistance to mechanical wear	See Annex A1, declared value
Cleanability	See Annex A1, declared value
Reparability	See Annex A1, statement of the manufacturer
Thickness	See Annex A1, declared value
Applicability	See Annex A1, declaration

The verification of durability and serviceability is ensured only if the intended use is according to Annex B and the specifications of the technical file of the manufacturer are kept.

#### 4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied

##### 4.1 System of assessment and verification of constancy of performance

According to UKAD No. 030437-00-0503 and Annex V of the Construction Products Regulation (Regulation (EU) 305/2011 as brought into UK law and amended, the following system of assessment and verification of constancy of performance (AVCP) applies.

Product	Intended use(s)	Level or class	AVCP system
Watertight covering kits for wet room floors and walls	For building works	N/A	2+
	For uses subject to regulation on reaction to fire	E	3

#### 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable UKAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with the British Board of Agrément and made available to the UK Approved Bodies involved in the conformity attestation process.

##### 5.1 UKCA marking for the product/ system must contain the following information:

- Identification number of the Approved Body
- Name/address of the manufacturer of the product/ system
- Marking with intention of clarification of intended use
- Date of marking
- Number of certificate of constancy of performance (where applicable)
- UKTA number.

On behalf of the British Board of Agrément



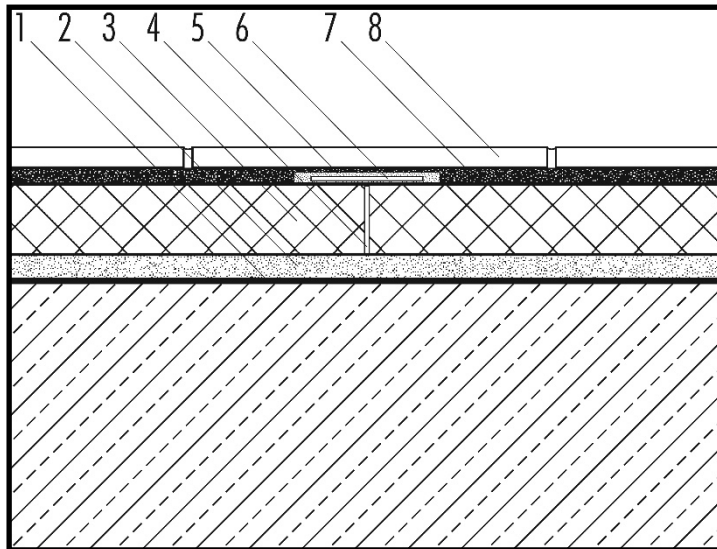
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**ANNEX A1**  
**System built up, characteristic values and classifications**



- 1 Primer LUX ELEMENTS-COL-HSV, if necessary
- 2 Adhesive LUX ELEMENTS-COL-AK
- 3 Watertight board LUX ELEMENTS-TUB or LUX ELEMEMENTS-ELEMENT-VK
- 4 Adhesive LUX ELEMENTS-COL-MK for fixing the joints between the boards
- 5 Sealing mass for Details LUX ELEMENTS-DRY-ASK
- 6 Sealing tape LUX ELEMENTS-DRY-DB or LUX ELEMENTS-DRY-DBV
- 7 Tile adhesive (see Annex 2)
- 8 Wearing surface (e. g. tiles) (not part of the kit)

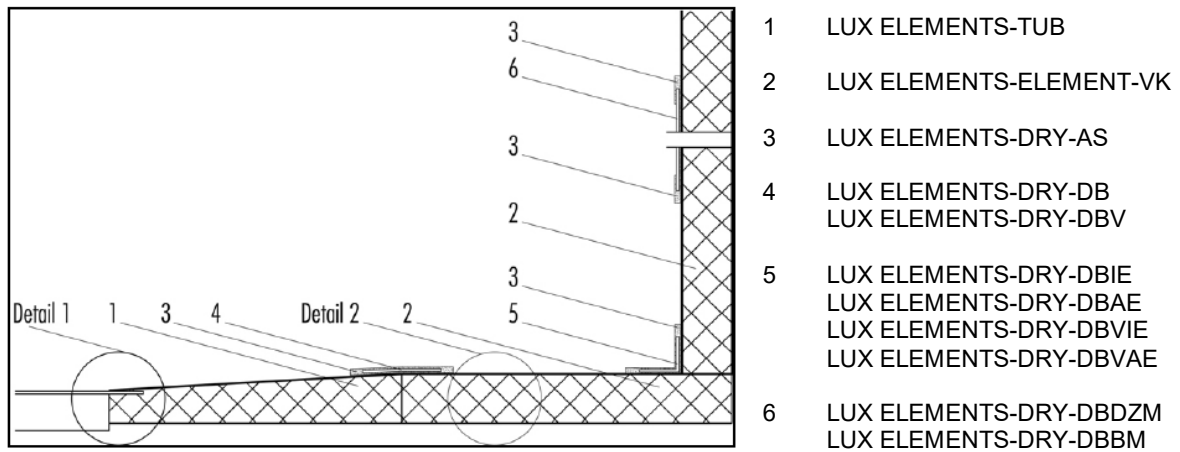
**Applicable to the watertight covering kit:**

Thickness of the watertight boards	12 mm to 100 mm
Working life	25 years
Reaction to fire	EN 13501-1 class E
Statement on dangerous substance	see section 3.3
Water vapour diffusion resistance factor (23 °C – 50/93 % r.h.)	$s_d = 85 \text{ m}$
Water tightness	watertight
Scratching resistance	not relevant acc. ETAG 022-3
Impermeability at sealings	pass
Dimensional Stability	all directions < +/-1 %
Resistance to mechanical wear	not relevant acc. ETAG 022-3
Cleanability	not relevant acc. ETAG 022-3
Reparability	reparable
Slipperiness	npd
Applicability	Not relevant acc. ETAG 022-3

**Levels of categories according ETAG 022 with relation to:**

Use category related to BWR 3	IA2
Crack bridging ability	category 1: 0.4 mm
Bond strength	category 2: $\geq 0.3 \text{ MPa}$
Joint bridging ability	category 2: watertight
Water tightness around penetrations	category 2: watertight
Resistance to temperature	category 2: $\geq 0.3 \text{ MPa}$
Resistance to water	water resistant
Resistance to alkalinity	category 2: $\geq 0.3 \text{ MPa}$ (50 °C/8 W)

**ANNEX A2**  
**Components**



**Main dimensions of sealing details:**

LUX ELEMENTS-DRY-DB	width: 100 mm
LUX ELEMENTS-DRY-DBV	width: 120 mm
LUX ELEMENTS-DRY-DBIE	leg length at least: 115 mm
LUX ELEMENTS-DRY-DBAE	leg length at least: 110 mm
LUX ELEMENTS-DRY-DBVIE	leg length at least: 110 mm
LUX ELEMENTS-DRY-DBVAE	leg length at least: 100 mm
LUX ELEMENTS-DRY-DBDZM	length/width: 120/120 mm; 150/150 mm
LUX ELEMENTS-DRY-DBBM	length/width: at least 100/100 mm

**Tile adhesives:**

LUX ELEMENTS-COL-FLEX  
 SCHÖNOX CF  
 Sopro's N°1

## **ANNEX B**

### **Installation**

The levels of use categories and the performance of the waterproofing kit can be assumed only, if the installation is carried out according to the installation instructions stated in the technical file of the manufacturer, taking account of the following points:

- installation by appropriately trained personnel,
- installation of only those components which are specified components of the kit,
- installation with the required tools and adjuvant,
- precautions during installation,
- inspecting the substrate surface for cleanliness and correct treatment,
- inspecting during installation and of the finished watertight membrane and documentation of the results.





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