

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-18/0760
of 23 November 2018

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Schedel Multistar Plan

Product family
to which the construction product belongs

Watertight covering kit for wet room floors and walls
based on watertight boards

Manufacturer

Kunststofftechnik Schedel GmbH
Oelsnitzer Straße 55
08223 Falkenstein
DEUTSCHLAND

Manufacturing plant

Kunststofftechnik Schedel GmbH
Oelsnitzer Straße 55
08223 Falkenstein
DEUTSCHLAND

This European Technical Assessment
contains

10 pages including 4 annexes which form an integral part
of this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

ETAG 022 Part 3: "Kits based on inherently watertight
boards",
used as EAD according to Article 66 Paragraph 3 of
Regulation (EU) No 305/2011.

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Specific part

1 Technical description of the product

The watertight covering "Schedel Multistar Plan" is a waterproofing kit with watertight boards for wet rooms. It consists of the following components:

- adhesives for tiles "Sopros Nr.1 Schnell" according to EN 12004¹ between floor and board or between boards
- the sealing slurry "Schedel MULTISTAR Mineralische Dichtschlämme 2K" on the basis of cement mortar for the boards and the wall to the adjacent components and to each other.
- watertight boards on the basis of expanded polystyrene foam with a mineral or a fleece coating at the water side

Product	Main dimensions			Density g/dm ³	Description
	Length [mm]	Width [mm]	Thick- ness [mm]		
Multistar PLAN	500-2000	500-2000	30-80	≥ 60	with penetration for point-shaped floor gully
Multistar LEVEL 18	500-2000	500-2000	18-50	≥ 60	with penetration for point-shaped floor gully
Multistar FLAT	500-2000	500-2000	60-100	≥ 60	with penetration for point-shaped floor gully
Multistar LINE	500-2000	500-2000	45-100	≥ 60	with penetration for linear floor gully
Multistar LINE UNIVERSAL	500-2000	500-2000	60-110	≥ 60	with adapter for linear floor gully
Multistar SYSTEM- BOARD	500-2000	500-2000	40-80	≥ 60	for floors with in the wall integrated gullies
Multistar PODEST	500-2000	500-2000	40-320	≥ 60	without slope, without penetration for floor
Multistar DUSCH- PLATZ	500-2000	500-2000	40-80	≥ 25	with penetration for point-shaped or linear floor gully and installation connections in the wall area
Multistar STEAM	1000-3000	500-2000	40-80	≥ 25	with penetration for point-shaped or linear floor gully and installation connections in the wall area

The geometry of the boards can be quadratic, rectangular, pentagonal, quarter- or semicircle. Prefabricated parts with maximum dimensions for length ≤ 3000 and width ≤ 2000 are possible. The boards for the floor are sloped in direction to the floor gully. Partially the floor gullies are inserted by manufacturing plant.

The gully is not part of the kit.

Other dimensions of the boards for length and width and form can be cut from a board.

¹ EN 12004:2007

Adhesives for tiles - Requirements, evaluation of conformity, classification and designation

English translation prepared by DIBt

- sealing details
 - "Schedel Außenecke", width approx. 105 mm
 - "Schedel Innenecke", width approx. 120 mm
 - "Schedel Dehnzonenmanchette", main dimensions 120 x 120 mm
 - "Schedel Dehnzonenmanchette", main dimensions 180 x 180 mm
- sealing tape
 - "Schedel Dichtband", width approx. 120 mm
- Adhesive on the basis of polyurethane
 - "COSMO HD"
 - "COSMO PU"
 - "LOCTITE UK"
- adhesives for tiles on the basis of cement mortar according EN 12004¹
 - Sopro's No.1 schnell Flexkleber

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, annex A2 the performance of the Product and Annexes A3 shows the sealing details.

2 Specification of the intended use in accordance with the applicable European Assessment Document

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 possible operating temperature of 5 °C till 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 combination of watertight board and/or 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:

Stainless steel or plastics – type PE, PP or ABS – with clamping ring and collar

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 European Technical Assessment is based lead to the assumption of a 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 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	see Annex A2

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Release of dangerous substances:	
Component: Tile adhesive (CE-marked)	according to EN 12004
All other components	
Content, emission and/or release of dangerous substances	
Substance/s classified as EU-cat. Carc. 1A and/or 1B ^{a)}	no performance assessed
Substance/s classified as EU-cat. Muta. 1A and/or 1B ^{a)}	
Substance/s classified as EU-cat. Acute Tox. 1, 2 and/or 3; Repr. 1A and/or 1B; STOT SE 1 and/or STOT RE 1 ^{a)}	
SVOC and VOC	no performance assessed.
Use scenarios regarding BWR 3 in accordance with EOTA TR 034: IA2 , IA3	
Vapour permeability	see Annex A2
Watertightness	see Annex A2
Crack bridging ability	see Annex A2, category
Bond strength	see Annex A2, category
Scratching resistance	see Annex A2
Joint bridging ability	see Annex A2, category
Impermeability at sealings	see Annex A2, category
Watertightness around penetration	see Annex A2, category
Dimensional stability	see Annex A2
Resistance to temperature	see Annex A2, category
Resistance to water	see Annex A2, category
Resistance to alkalinity	see Annex A2, category
Resistance to mechanical wear	see Annex A2
Cleanability	see Annex A2
Reparability	see Annex A2, statement of the manufacture
Thickness	see Annex A2, declared value
Applicability	see Annex A2, description

^{a)} In accordance with Regulation (EC) No 1272/2008.

English translation prepared by DIBt

3.3 Safety and accessibility (BWR 4)

Essential characteristic	Performance
Slipperiness	see Annex A2

3.4 General aspects

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

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to ETAG 022 used as EAD the applicable European legal act is: 2003/665/EC
The system to be applied is: 2+

In addition, with regard to reaction to fire for products covered by this EAD the system to be applied is: 3

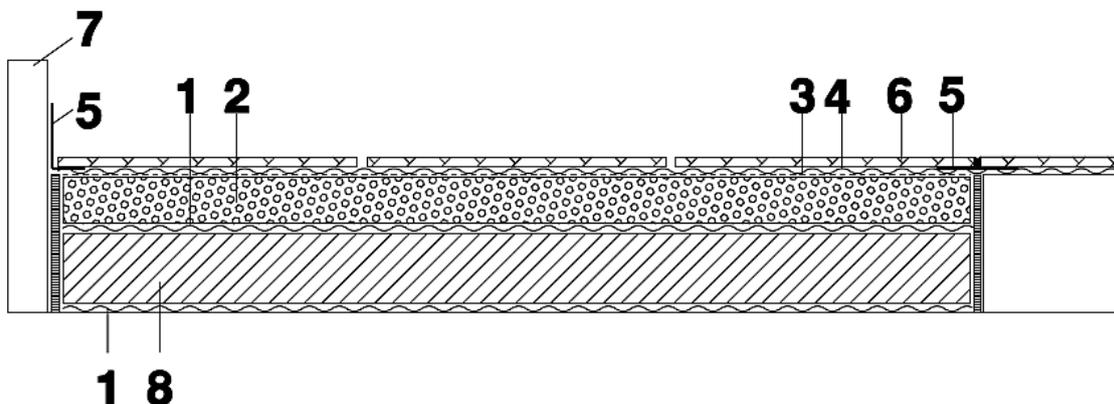
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 23 November 2018 by Deutsches Institut für Bautechnik

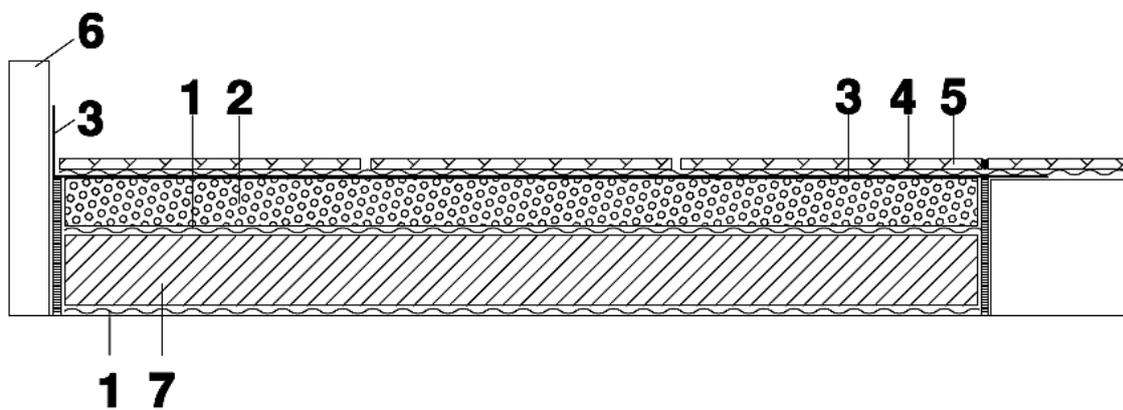
BD Dipl.-Ing. Andreas Kummerow
Head of Department

beglaubigt:
Gnamou



For boards with a mineral coating at the water side

1. SCHEDEL MULTISTAR® batch adhesive
2. SCHEDEL MULTISTAR® PLAN/LINE-Element, waterproof hard foam element
3. SCHEDEL MULTISTAR® mineral sealing slurries
4. tile adhesives
5. SCHEDEL MULTISTAR® Sealing tape
6. Wear layer (tiles)
7. Waterproofing Board
8. substructure



For boards with a fleece coating at the water side

1. SCHEDEL MULTISTAR® batch adhesive
2. SCHEDEL MULTISTAR® PLAN/LINE-Element, waterproof hard foam element
3. SCHEDEL MULTISTAR® fleece coating
4. tile adhesives
5. Wear layer (tiles)
6. Waterproofing Board
7. substructure

Schedel Multistar Plan
Kunststofftechnik Schedel GmbH

System build-up

Annex A1

	boards with a mineral coating at the water side	boards with a fleece coating at the water side
Applicable to the watertight covering kit:		
Thickness of the watertight boards	18 - 110 mm	
Working life	25 years	
Reaction to fire	EN 13501-1	class E
Statement on dangerous substance	see section 3.2	
Water vapour diffusion resistance factor	no performance assessed	
Water tightness	watertight	
Impermeability at sealings	pass	
Scratch resistance	not relevant	
Dimensional Stability	0.0%	
Resistance to mechanical wear	not relevant	
Cleanability	not relevant	
Reparability	no performance assessed	
Slipperiness	no performance assessed	
Applicability	Not relevant	
Levels of categories according ETAG 022 with relation to:		
Crack bridging ability	category 0/ not relevant	
Bond strength	category 1: ≥ 0.2 MPa	category 2: ≥ 0.3 MPa
Joint bridging ability	category 2	
Water tightness around penetrations	watertight: category 2	
Resistance to temperature	category 2	category 2
Resistance to water	category 1	category 1
Resistance to alkalinity	category 2	category 2

Schedel Multistar Plan
Kunststofftechnik Schedel GmbH

Systems classification

Annex A2

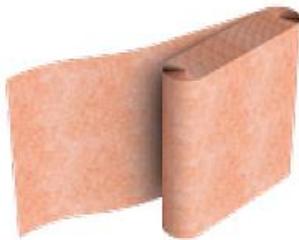
Example of PLAN-ELEMENT



Example of LINE-ELEMENT



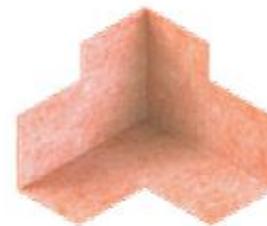
Sealing tape:



ingoing/outgoing corner:

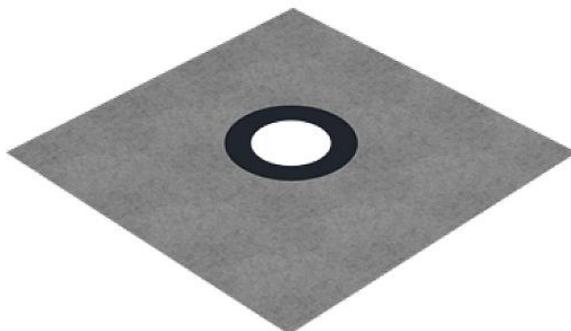


outgoing corner



ingoing corner

sealing sleeve



expansion zone sleeve

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, in particular 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

electronic copy of the eta by dibt: eta-18/0760

Schedel Multistar Plan Kunststofftechnik Schedel GmbH	Annex B
Intended use Specifications	