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European Technical Assessment Body  
for construction products



## European Technical Assessment

ETA-11/0282  
of 22 November 2024

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

ARDEX SK 100 W Waterproofing System

Product family  
to which the construction product belongs

Watertight covering kits based on flexible sheets for wet room floors and/or walls

Manufacturer

ARDEX GMBH  
Friedrich-Ebert-Straße 45  
58453 Witten-Annen  
DEUTSCHLAND

Manufacturing plant

ARDEX GMBH  
Friedrich-Ebert-Straße 45  
58453 Witten-Annen

This European Technical Assessment contains

11 pages including 6 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

EAD 030436-00-0503

This version replaces

ETA-11/0282 issued on 20 October 2017

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## Specific part

### 1 Technical description of the product

"ARDEX SK 100 W Waterproofing System" is a watertight covering kit based on flexible sheets for wet room floors and walls. The kit consists of:

- Flexible sheet: "ARDEX SK 100 W TRICOM Sealing Membrane" on the basis of polyethylene, both sides backed with a polypropylene fleece.
- Adhesives for bonding the sheet on the substrate:  
"ARDEX X 77" or "ARDEX X 80" flexible tile adhesive on the basis of cement mortar,  
"ARDEX 7 + 8" sealing adhesive on the basis of a two-component acrylic-dispersion cement combination,  
"ARDEX S 7 PLUS" flexible sealing slurry und sealing adhesive on the basis of a one-component, polymer-modified mineral mortar combination.
- Sealing adhesives for bonding the seams und embedding the sealing tapes, collars and corners:  
"ARDEX 7 + 8" or "ARDEX S 7 PLUS".
- Sealing tape: "ARDEX SK 12 TRICOM Sealing Tape".
- Sealing collars for walls, floors and gullies:  
"ARDEX SK-M 15/30 TRICOM Pipe Sealing Collar",  
"ARDEX SK-M 40/65 TRICOM Pipe Sealing Collar",  
"ARDEX SK-M 70/100 TRICOM Pipe Sealing Collar",  
"ARDEX SK-M 75/130 TRICOM Pipe Sealing Collar",  
"ARDEX SK-M D TRICOM Double Pipe Sealing Collar",  
"ARDEX PM 425 Sealing Sleeve" / "ARDEX SK-F TRICOM Sealing Sleeve 425 x 425",  
"ARDEX SK-G TRICOM Drain Collar 350 x 350",  
"ARDEX SK-B Sealing Ring 100 / 200",  
"ARDEX SK-S TRICOM Pipe Sealing Collar 150 x 150",  
"ARDEX SK-R TRICOM Pipe Sealing Collar 200 x 200".
- Ingoing sealing corner: "ARDEX SK 90 TRICOM Internal Corner Piece 90°".
- Outgoing sealing corner: "ARDEX SK 270 TRICOM External Corner Piece 270°".
- Adhesive for tiles according to EN 12004<sup>1</sup> on the basis of cement mortar:  
"ARDEX X 77", "ARDEX X 77 S", "ARDEX X 78",  
"ARDEX X 78 S", "ARDEX X 7 G PLUS", "ARDEX X 7 G FLEX",  
"ARDEX DITRA FBM", "ARDEX X 32", "ARDEX N 23",  
"ARDEX S 28" "ARDEX X 90", "ARDEX X 70 R FLEX",  
"ARDEX X 80", "ARDEX X 80 S", "ARDEX S 7 PLUS",  
or on the basis of a two-component epoxy resin: "ARDEX WA".
- Sealant: "ARDEX CA 20 P" construction adhesive on the basis of one component silane-modified polymers for the use in areas of penetrations (pipes, drains).

<sup>1</sup> EN 12004:2007+A1:2012 Adhesives for tiles – Requirements, evaluation of conformity, classification and designation

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

Annex A1 shows the system build-up and annexes A3 to A5 show the components for sealing of details.

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

The kit is intended for the waterproofing of floors and walls in indoor wet areas under a wearing surface at possible temperature of between 5 °C and 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 waterproofing system is intended to be used on flexible substrate e. g., plywood, chipboard, gypsum, anhydrite or similar material vulnerable to water and on rigid substrates e. g., masonry or concrete.

The product is used in connection with the following types of drains:

Stainless steel or plastics – type PP or PE – with flange for attaching of collar/waterproofing layer or with clamping ring and collar. It is up to the responsibility of the user to use suitable products of the given types.

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 and the installation instructions of the manufacturer stated in the technical documents<sup>2</sup>.

The verifications and assessment methods on which this European 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 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
Content, emission and/or Release of dangerous substances:	See Annex A2
Vapour permeability	See Annex A2
Watertightness	See Annex A2

<sup>2</sup> The manufacturer's technical documents comprise all information necessary for the production and the installation of the product as well as for repair of the waterproofing made from that and it is deposited with DIBt.

Essential characteristic	Performance
Crack bridging ability	See Annex A2
Bond strength	See Annex A2
Scratching resistance	See Annex A2
Joint bridging ability	See Annex A2
Watertightness around penetration	See Annex A2
Resistance to temperature	See Annex A2
Resistance to water	See Annex A2
Resistance to alkalinity	See Annex A2
Resistance to mechanical wear	See Annex A2
Joint strength	See Annex A2
Flexibility	See Annex A2

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

Essential characteristic	Performance
Slipperiness	See Annex A2
Repairability	See Annex A2
Thickness	See Annex A2

### 3.4 General aspects

The verification of durability and serviceability is part of testing the essential characteristics. The Durability and serviceability are only ensured if the specifications of intended use according to Annex B and the specifications of the technical documents of the manufacturer are kept.

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

In accordance with EAD No. 030352-00-0503, 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

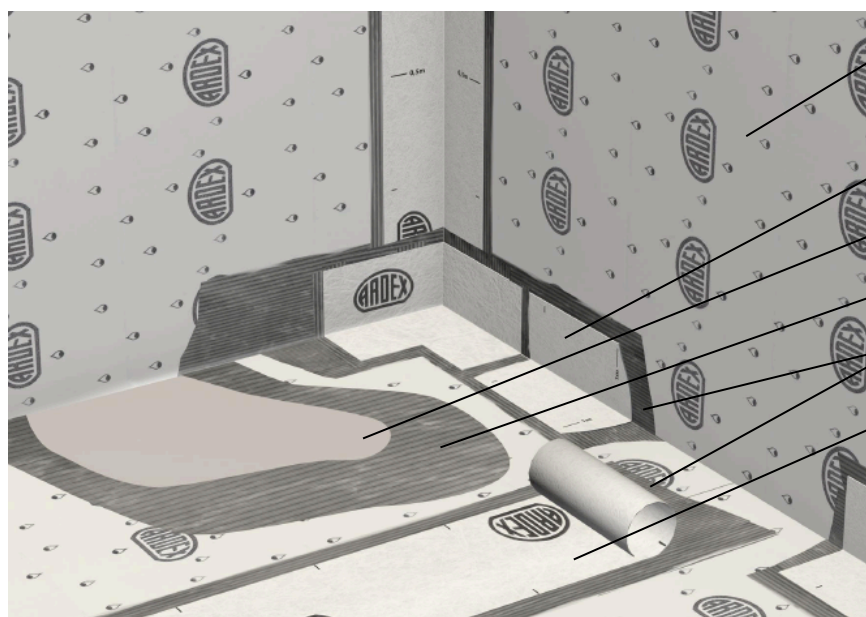
## 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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 22 November 2024 by Deutsches Institut für Bautechnik

Bettina Hemme  
Head of Department

*beglaubigt:*  
Hannoun



- 1 "ARDEX SK 100 W TRICOM Sealing Membrane" bonded to the substrate with one of the adhesives given in Table A1-1
- 2 "ARDEX SK 12 TRICOM Sealing Tape"
- 3 Wearing surface (e. g., tiles) (not part of the kit)
- 4 Adhesive for tiles in accordance with Table A1-3
- 5 Sealing adhesive in accordance with Table A1-2
- 6 Butt-joint covered with "ARDEX SK 12 TRICOM Sealing Tape" + Sealing adhesives of Table A1-2 (variant of joints, in case of using "ARDEX X 77" or "ARDEX X 80" tile adhesive for bonding the flexible sheet on the substrate)

Table A1-1: Adhesives for bonding the sheet on the substrate

"ARDEX X 77"	"ARDEX X 80"
"ARDEX 7 + 8"	"ARDEX S 7 PLUS"

Table A1-2: Sealing adhesives for bonding the seams und embedding the sealing tapes, collars and corners

"ARDEX 7 + 8"	"ARDEX S 7 PLUS"
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Table A1-3: Adhesives for tiles according to EN 12004 (over the sheet)

"ARDEX X 77"	"ARDEX X 77 S"
"ARDEX X 78"	"ARDEX X 78 S"
"ARDEX X 7 G PLUS"	"ARDEX X 7 G FLEX"
"ARDEX DITRA FBM"	"ARDEX X 32"
"ARDEX N 23"	"ARDEX S 28"
"ARDEX X 90"	"ARDEX X 70 R FLEX"
"ARDEX X 80"	"ARDEX X 80 S"
"ARDEX S 7 PLUS"	"ARDEX WA"

**ARDEX SK 100 W Waterproofing System**  
ARDEX GmbH

**System built-up**

Annex A1

<b>Working life</b>	25 years
<b>Essential characteristic</b>	<b>Performance</b>
<b>Reaction to fire</b> EN 13501-1	Class E
<b>Content, emission and/or release of dangerous substances<sup>a)</sup></b>	
Component: Tile adhesive (CE-marked)	According to EN 12004
All other components:	NPA
<b>Vapour permeability</b> (Water vapour diffusion-equivalent air layer thickness; 23 °C – 50/93 % r.h.) "ARDEX SK 100 W" TRICOM Sealing Membrane"	$s_d \approx 92$ m
<b>Water tightness</b>	Watertight
<b>Crack bridging ability</b>	Category 3: Crack width 1.5 mm
<b>Bond strength</b> using the tile adhesive: "ARDEX X 77", "ARDEX X 77 S", "ARDEX X 78", "ARDEX X 78 S" "ARDEX X 7 G PLUS", "ARDEX X 7 G FLEX", "ARDEX DITRA FBM", "ARDEX X 32", "ARDEX N 23", "ARDEX S 28", "ARDEX X 90", "ARDEX X 70 R FLEX", "ARDEX X 80", "ARDEX X 80 S", "ARDEX S 7 PLUS", "ARDEX WA"	Category 2: Bond strength $\geq 0.3$ MPa
<b>Scratching resistance</b>	NPA (not relevant)
<b>Joint bridging ability</b>	Can bridge joints (watertight, joint width 2 mm)
<b>Water tightness around penetrations</b> (Tests according to Annex A and Annex F of EAD 030352-00-0503)	Watertight (on flexible and rigid floors and walls)
<b>Resistance to temperature:</b>	
Tensile strength (change after aging / delivery state) longitudinal / transverse	$\leq \pm 20$ % (temperature resistant)
Elongation (change after aging / delivery state) longitudinal / transverse	
<b>Resistance to water</b>	Category 2: Bond strength $\geq 0.3$ MPa
<b>Resistance to alkalinity:</b>	Category 2: 50°C /16 weeks
Tensile strength (change after aging / delivery state) longitudinal / transverse	$\leq \pm 20$ % (alkali resistant)
Elongation (change after aging / delivery state) longitudinal / transverse	
<b>Resistance to mechanical wear</b>	NPA (not relevant)
<b>Joint strength</b>	NPA
<b>Flexibility</b>	NPA (not relevant)
<b>Slipperiness</b>	NPA
<b>Repairability</b>	Repairable
<b>Thickness</b>	
Total thickness of the waterproofing sheet (including fleece backing)	$\geq 0.5$ mm
Effective thickness of the waterproofing sheet (waterproofing layer, without backing)	$\geq 0,20$ mm
(NPA: no performance assessed)	
<sup>a)</sup> Release scenarios regarding BWR 3: IA 2.	
<b>ARDEX SK 100 W Waterproofing System</b> ARDEX GmbH	Annex A2
<b>Levels of use categories and performances of the product</b>	



**Sealing tape:**



"ARDEX SK 12 TRICOM Sealing Tape", 120 mm wide

**Sealing collars for walls, floors and gullies:**



"ARDEX SK-M 15/30 TRICOM Pipe Sealing Collar",  
140 x 140 mm, for pipe penetrations Ø 15 – 30 mm



"ARDEX SK-M 40/65 TRICOM Pipe Sealing Collar",  
180 x 180 mm, for pipe penetrations Ø 40 – 65 mm



"ARDEX SK-M 70/100 TRICOM Pipe Sealing Collar",  
220 x 220 mm, for pipe penetrations Ø 70 – 100 mm



"ARDEX SK-M 75/130 TRICOM Pipe Sealing Collar",  
240 x 240 mm, for pipe penetrations Ø 75 – 130 mm

**ARDEX SK 100 W Waterproofing System**  
ARDEX GmbH

**Components**

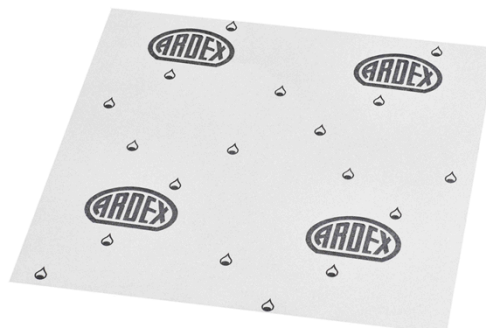
Annex A3



**Sealing collars for walls, floors and gullies (continued):**



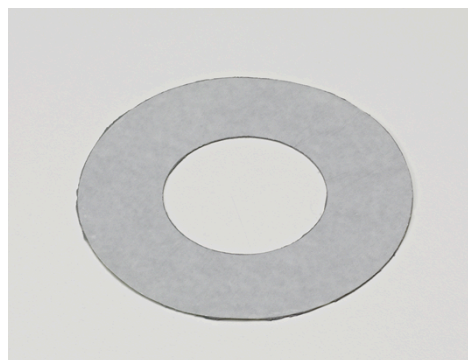
"ARDEX SK-M D TRICOM Double Pipe Sealing Collar",  
285 x 140 mm, for double pipe penetrations, e.g., in mixer  
taps, of  $\varnothing$  15 - 30 mm



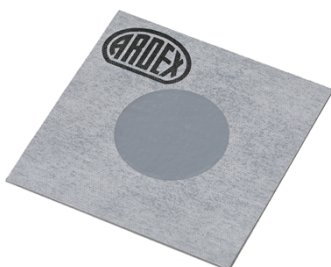
"ARDEX PM 425 Sealing Sleeve" /  
"ARDEX SK-F TRICOM Sealing Sleeve 425 x 425",  
425 x 425 mm, for floor drains and larger penetrations



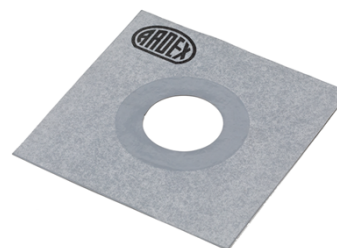
"ARDEX SK-G TRICOM Drain Collar 350 x 350"  
350 x 350 mm, for floor drains of  $\varnothing$  125 mm



"ARDEX SK-B Sealing Ring 100 / 200",  
internal/external diameter of 98 / 198 mm,  
two-sided self-adhesive butyl rubber ring,  
together with "ARDEX SK-G" for floor drains  $\varnothing$  125 mm and  
drains with clamping ring



"ARDEX SK-S TRICOM Pipe Sealing Collar 150 x 150",  
150 x 150 mm, for pipe penetrations of  $\varnothing$  40 – 65 mm



"ARDEX SK-R TRICOM Pipe Sealing Collar 200 x 200",  
200 x 200 mm, for pipe penetrations of  $\varnothing$  70 – 100 mm

**ARDEX SK 100 W Waterproofing System**  
ARDEX GmbH

**Components**

Annex A4

**Ingoing sealing corner:**



"ARDEX SK 90 TRICOM Internal Corner Piece 90°",  
leg length 120 mm

**Outgoing sealing corner:**



"ARDEX SK 270 TRICOM External Corner Piece 270°",  
leg length 115 mm

**ARDEX SK 100 W Waterproofing System**  
ARDEX GmbH

**Components**

Annex A5

### 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.

**ARDEX SK 100 W Waterproofing System**  
ARDEX GmbH

**Intended use**  
Specifications for the installation

Annex B