

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

**ETA-11/0282
of 20 October 2017**

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 Dichtsystem

Product family
to which the construction product belongs

Watertight covering kit for wet room floors and walls
based on flexible sheets

Manufacturer

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

Manufacturing plant

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

This European Technical Assessment
contains

9 pages including 3 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 2: "Kits based on flexible sheets", Version
November 2010,
used as EAD according to Article 66 Paragraph 3 of
Regulation (EU) No 305/2011.

This version replaces

ETA-11/0282 issued on 10 January 2012

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Specific Part

1 Technical description of the product

The watertight covering "ARDEX SK 100 W Dichtsystem" is a kit. The kit consists of:

- flexible sheet "ARDEX SK 100 W Tricom Dichtbahn" on the basis of polyethylene both sides clutched with a polypropylene fleece
- adhesive for the sheet "ARDEX X 77" on the basis of cement mortar or "ARDEX 7 + 8" on the basis of a two component acrylic dispersion cement combination according EN 12004¹
- sealing tape "ARDEX SK 12 TRICOM Dichtband 120"
- sealing sleeve for corners and floor gullies:
 - ARDEX SK-W TRICOM Dichtmanschette 120 x 120
 - ARDEX SK-F TRICOM Dichtmanschette 415 x 425
 - ARDEX SK-G TRICOM Rohrkragenmanschette 350 x 350
 - ARDEX SK-S TRICOM Dehnzonenmanschette 150 x 150
 - ARDEX SK-R TRICOM Dehnzonenmanschette 200 x 200
 - ARDEX SK-B Dichtring 100 x 200
 - ARDEX SK90 TRICOM Innenecke 90°
 - ARDEX SK270 TRICOM Außenecke 270°
- adhesive for tiles on the basis of cement mortar, CE-marked according EN 12004:

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 NEU	ARDEX X 90 OUTDOOR	
- or adhesives for tiles on the basis of a two component epoxy resin, CE-marked according EN 12004: "ARDEX WA"
- sealing mass "ARDEX CA 20 P" on the basis of a one component polymer modified with silan

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.

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

¹ EN 12004:2007 Adhesives for tiles – Requirements, evaluation of conformity, classification and designation

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 kit shows certain levels of performance e. g. categories according to ETAG 022 part 2 which facilitate the use taking into account national regulations (see chapter 2.1).

The watertight membrane 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 should be used in connection with the following types of gullies:

Stainless steel or plastics – type PE or PP – with flange for attaching of collar/membrane or 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 types.

The verifications which are the basis of this ETA give the reason for the assumption of an intended working² life of the watertight covering of 25 years, provided that the watertight covering kit is subject to appropriate use and maintenance. These provisions are based upon the current state of the art and the available knowledge and experience.

The indications given as to the working life of the watertight membrane cannot be interpreted as a guarantee given by the manufacturer or the approval body. They should only be regarded as a means for choosing the appropriate criteria for a watertight covering kit 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 A1

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content and/or Release of dangerous substances:	
Component: Tile adhesive (CE-marked)	According to EN 12004
All other components	No performance assessed
Vapour permeability	See Annex A1
Watertightness	See Annex A1
Crack bridging ability	See Annex A1

² "Assumed intended working life" means that it is expected that, when this working life has elapsed, the real working life may be, in normal use conditions, considerably longer without major degradation affecting the Essential Requirements.

Essential characteristic	Performance
Bond strength	See Annex A1
Scratching resistance	See Annex A1
Joint bridging ability	See Annex A1
Watertightness around penetration	See Annex A1
Joint strength	See Annex A1
Flexibility	See Annex A1

3.3 Safety and accessibility (BWR 4)

Essential characteristic	Performance
Slipperiness	See Annex A1

3.4 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
Resistance to temperature	See Annex A1
Resistance to water	See Annex A1
Resistance to alkalinity	See Annex A1
Resistance to mechanical wear	See Annex A1
Cleanability	See Annex A1
Reparability	See Annex A1
Thickness	See Annex A1
Applicability	See Annex A1

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 Decision of the Commission of 12 September 2003 (2003/655/EC) (OJ L 231 of 17.09.2003, p. 12) the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use(s)	Level or class	System
Watertight covering kits for wetroom floors and walls	For building works	-	2+
	For uses subject to regulation on reaction to fire	E	3

English translation prepared by DIBt

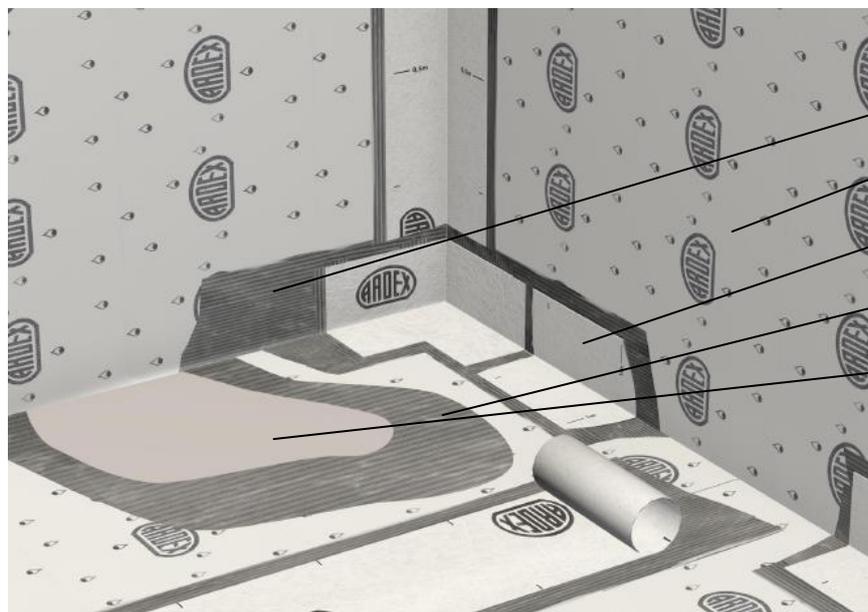
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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

Issued in Berlin on 20 October 2017 by Deutsches Institut für Bautechnik

BD Dipl.-Ing. Andreas Kummerow
Head of Department

beglaubigt:
Gnamou



- 1 Adhesive "ARDEX X 77" or "ARDEX 7+8"
- 2 Flexible sheet "ARDEX SK 100 W TRICOM"
- 3 Sealing tape "ARDEX SK 12 TRICOM"
- 4 Adhesive according list in Annex 2
- 5 Wearing surface (e. g. tiles) (not part of the kit)

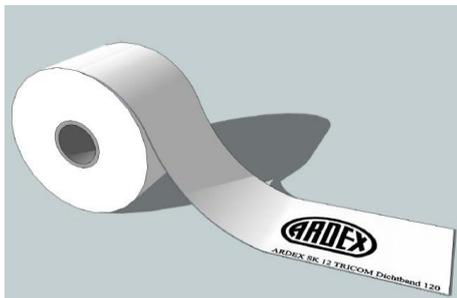
Applicable to the watertight covering kit:

Minimum layer thickness of the waterproofing sheet	0.5 mm
Working life	25 years
Reaction to fire	EN 13501-1 class E
Statement on dangerous substance	no performance assessed
Water vapour diffusion resistance factor (23 °C – 50/93 % r.h.)	$s_d = 92 \text{ m}$
Water tightness	watertight
Scratch resistance	not relevant acc. ETAG 022-2
Joint strength	no performance assessed
Flexibility	not relevant acc. ETAG 022-2
Dimensional Stability	longitudinal 0,02 %, transversal 0,04 %
Resistance to mechanical wear	not relevant acc. ETAG 022-2
Cleanability	not relevant acc. ETAG 022-2
Reparability	reparable
Slipperiness	no performance assessed
Applicability	applicable
Levels of categories according ETAG 022 with relation to:	
Use category related to BWR 3	IA2
Crack bridging ability	category 3: 1.5 mm
Bond strength	category 3: $\geq 0.3 \text{ MPa}$
Joint bridging ability	category 2: watertight
Water tightness around penetrations	category 2: watertight
Resistance to temperature	temperature resistant
Resistance to water	category 3: $\geq 0.3 \text{ MPa}$
Resistance to alkalinity	category 2: alkali resistant (50 °C/16 W)

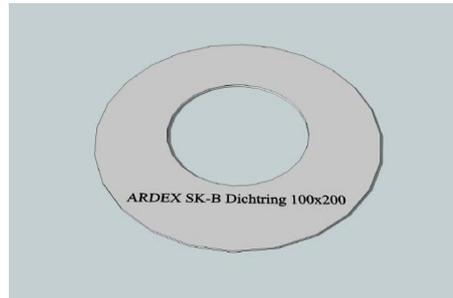
ARDEX SK 100 W Dichtsystem
ARDEX GmbH

System built up

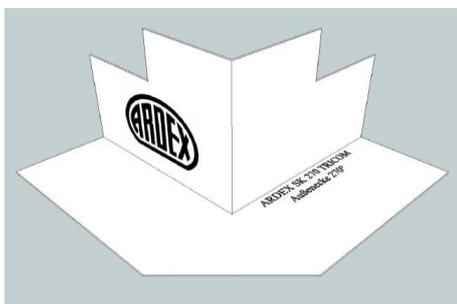
Annex A1



sealing tape ARDEX SK 12 TRICOM
120



sealing tape ring ARDEX SK-B 100 x 200



outgoing corner sleeve
ARDEX SK 270 TRICOM



ingoing corner sleeve
ARDEX SK 90 TRICOM



collar sleeve ARDEX SK-F/-W TRICOM
425 x 425 / 120 x 120



Collar sleeve ARDEX SK-G TRICOM
350 x 350



Joint bridging sleeve ARDEX SK-S/-R
TRICOM, 150 x 150 / 200 x 200

Adhesive for tiles (part of the kit)

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 NEU
ARDEX WA	ARDEX CA 20 P
Ardex X 90	

ARDEX SK 100 W Dichtsystem
ARDEX GmbH

Components

Annex A2

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 Dichtsystem ARDEX GmbH	Annex B
Intended use Specifications	