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**European Technical Assessment Body
for construction products**



European Technical Assessment

**ETA-24/1198
of 22 January 2025**

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Trade name of the construction product

Product family
to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment
contains

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

Deutsches Institut für Bautechnik

an.kox AquaproofX 1 PLUS

Coated metal water stop sheet for construction and
controlled crack joints in waterproof concrete

an.kox GmbH
Junghansring 52
72108 Rottenburg a. N.
GERMANY

an.kox GmbH
Junghansring 52
72108 Rottenburg a. N.

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

EAD 320002-02-0605

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Specific part

1 Technical description of the product

"an.kox AquaproofX 1 PLUS" is a one-side coated metal water stop sheet for sealing of construction and controlled crack joints in waterproof concrete.

It has the following built-up:

- galvanized metal sheet with the dimensions:
h = 140 mm, t = 0.5 mm.
- reactive polymer coat (on one side) on the basis of thermoplastic elastomer with a thickness of 0.7 mm.

The water stop has a total thickness of 1.2 mm and is delivered without protective film.

The water stop comprises the following components:

- "Metal waterstop fixing bracket" for fixing the water stop during installation.
- "AquaproofX 1 PLUS overlap strip": 200 x 140 mm one-sided self-adhesive fixing metal straps for sealing the joints.

Annex A shows the principle and performances of the product, as well as, the components.

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

The water stop is used to seal joints in constructions made of concrete with high resistance to water (watertight concrete) against the penetration of pressing and un-pressing water (e.g., ground water) and to soil moisture.

There are the following scenarios of intended use:

- Construction joints
- Controlled crack joints for the use in pre-cast elements made of concrete
- Controlled crack joints for the use in in-situ concrete

The performances given in Section 3 are only valid if the water stop is used in compliance with the specifications and conditions given in Annex B and the installation instructions of the manufacturer stated in the technical documents¹.

The verifications and assessment methods on which this European Technical Assessment is based lead the assumption of working life of the water stop of at least 50 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 A1

¹ 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.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Watertightness in end use conditions	See Annex A1
Bond strength at state of delivery	See Annex A1
Bond strength after heat aging	See Annex A1
Durability	See Annex A1

3.3 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. 320002-02-0605, the applicable European legal act is: 1999/90/EC.
The system to be applied is: 3

In addition, with regard to reaction to fire for products covered by this EAD the applicable European legal act is: 1999/90/EC, as amended by Decision 2001/596/EC.

The system to be applied is: 3

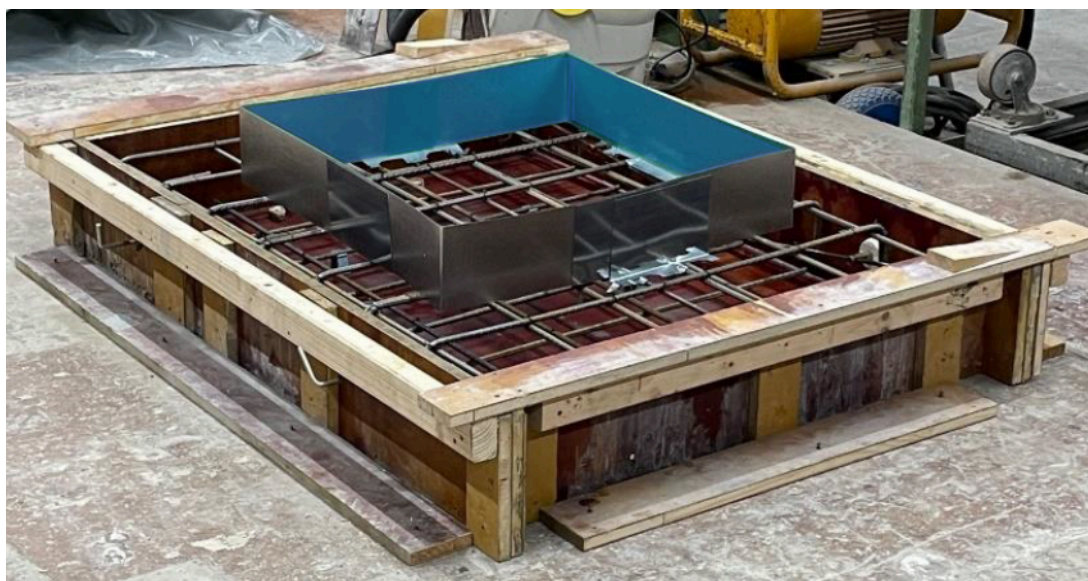
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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 January 2025 by Deutsches Institut für Bautechnik

Bettina Hemme
Head of Section

Beglaubigt:
Hannoun



Performance of the product:

Essential characteristic	Performance
Reaction to fire	Class E ¹⁾
Watertightness in end use conditions	Use scenarios ²⁾ a), b) and c) Up to 20 m water column ³⁾ (Test pressure: 500 kPa)
Bond strength at the state of delivery	≥ 0.5 MPa
Bond strength after heat aging	≥ 0.6 MPa Deviation from state of delivery ≈ +20% (No drop in values)
Durability Volatile compounds (los of weight)	< 3 %

1) Class according to EN 13501-1

2) Use scenarios according to EAD:

a): Construction joints

b): Controlled crack joints for application in pre-cast concrete elements

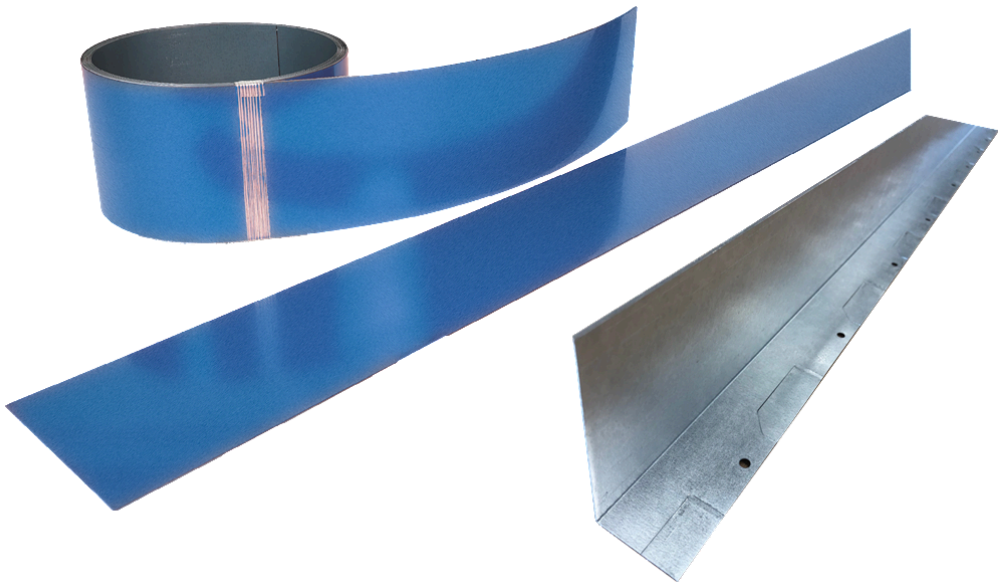
c): Controlled crack joints for application in in-situ concrete

3) The water pressure relevant for the intended use equals the actual test pressure divided by a safety factor of 2.5

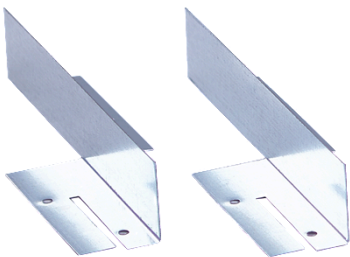
an.kox AquaproofX 1 PLUS
an.kox GmbH

Principle and performance of the product

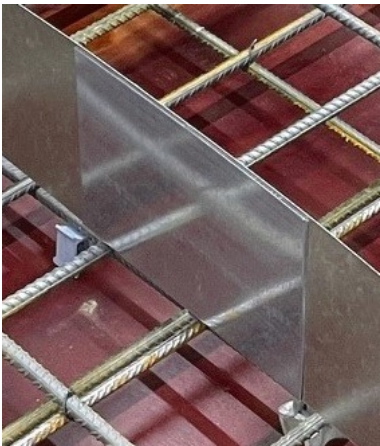
Annex A1



an.kox AquaproofX 1 PLUS



Metal waterstop fixing bracket



AquaproofX 1 PLUS overlap strip

an.kox AquaproofX 1 PLUS an.kox GmbH	Annex A2
Types und components	

Installation

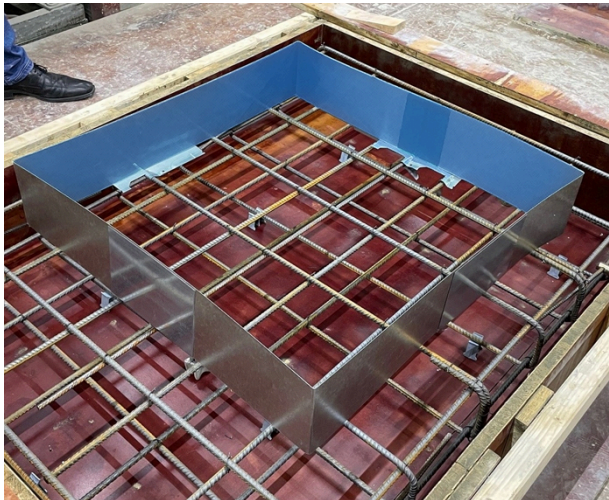
The performance of the water stop can be assumed only, if the installation is carried out according to the installation instructions stated in the technical documents of the manufacturer, in particular taking account of the following points:

- Installation by appropriately trained personnel;
- Installation of only those components which are specified as components of the product;
- Installation with the required tools;
- Inspecting the substrate surface and the joint surface for cleanliness and correct treatment;
- Inspecting of position and fixing of the water stop during installation and of the finished installed water stop after the first concreting step and documentation of the results;
- The water stop is generally located in the middle of the construction joints or the crack control sections;
- The embedment in the first concreting step must be at least 30 mm;
- The distance between water stop and the edge of the construction element must be at least 50 mm, as well as, at least three times of maximum grain size;
- The water stop has to be attached with appropriate „Metal waterstop fixing bracket“. During concreting the water stop shall not move and not float;
- In the joint area, the water stops shall be butt joined and secured on the backside with the one-sided self-adhesive "AquaproofX 1 PLUS overlap strip".

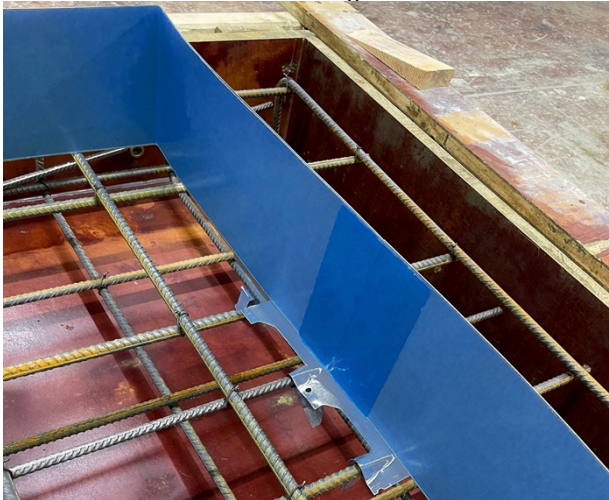
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Intended use
Specifications for the Installation

Annex B1



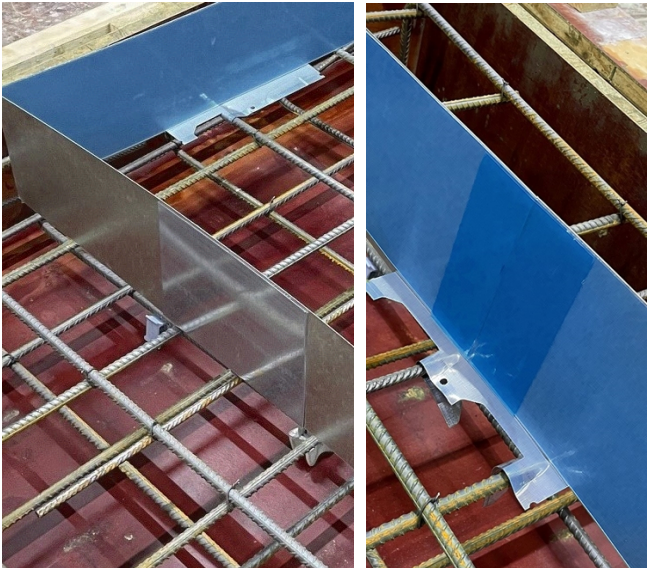
"an.kox AquaproofX 1 PLUS" is positioned and fixed on the upper reinforcement layer in the middle of the joint. Fixation is carried out with the "Metal waterstop fixing brackets". At least one bracket per meter. The "Metal waterstop fixing brackets" is bonded on the backside of the metal waterstop.



NO protection foil must be removed before concreting. A factory-applied special concrete contact film will effectively prevent the waterstops from sticking together during transport and storage. The concrete contact film will dissolve automatically under the influence of moisture, alkalinity and hydration of fresh concrete.



An embedment depth of min. 3.0 cm shall be kept. The coated face shall be installed towards the water exposure.



At joints, "an.kox AquaproofX 1 PLUS" is butt joined and secured on the backside with "AquaproofX 1 PLUS overlap strip"

an.kox AquaproofX 1 PLUS an.kox GmbH	Annex B2
Intended use Specifications for the Installation	