Deutsches Institut für Bautechnik

Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

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European Technical Assessment ETA-15/0348 of 4 February 2016

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	Wolfseal KB 16, Wolfseal FTS, Wolfseal OBS
Product family to which the construction product belongs	Coated metal water stop sheet for construction and controlled crack joints in waterproof concrete
Manufacturer	Roland Wolf GmbH Grosses Wert 21 89155 Erbach DEUTSCHLAND
Manufacturing plant	Roland Wolf GmbH Grosses Wert 21 89155 Erbach
This European Technical Assessment contains	8 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	European Assessment Document (EAD) 320002-00-0605 "Coated metal water stop sheet for construction and controlled crack joints in waterproof concrete"

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Specific Part

1 Discritption of the product

The water stops "wolfseal KB 16", "wolfseal FTS", und "wolfseal OBS" consist of the following components:

- Galvanized metal sheet with the dimensions:
  h = 167 mm, t = 0.63 mm
- Polymer modified bituminous coating

The metal sheets are fully coated with the bituminous coating.

For installation purposes the water stops are delivered with a protective foil on the bitumen coating. Furthermore there are holders for fixing the water stop during installation and clamps for fixing the overlapping joint between the ends of the water stop.

There are the following types of products:

Wolfseal KB 16 – for horizontal and vertical construction joints

Wolfseal OBS - for controlled crack joints in in-situ concrete elements

Wolfseal FTS - for controlled crack joints in pre-cast elements

Annex A shows the principles and performances of the product and furthermore the different types of products.

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

The water stops are 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 classes of intended use:

a) Construction joints
b) Controlled crack joints for the use in pre-cast elements made of concrete
c) 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.

The verifications and assessment methods on which this European Technical Assessment is based lead the assumption of working life of the water stop of 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 Mechanical resistance and stability (BWR 1)

Not applicable

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	See Annex A1

3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content of dangerous substances:	The chemical composition of the product has to be in compliance with the composition deposited at the Technical Assessment Body (DIBt). The product does not contain dangerous substances > 0,1 wt. % according to EOTA TR 034 (Version September 2015)
Watertightness in end use conditions	See Annex A1

3.4 Safety and accessibility (BWR 4)

Not applicable

3.5 Protection against noise (BWR 5)

Not applicable

3.6 Energy economy and heat retention (BWR 6)

Not applicable

3.7 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

3.8 General aspects

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

Essential characteristic	Performance
Bondstrength at state of delivery	See Annex A1
Bondstrength after heat aging	See Annex A1
Volatile compounds (Lost of weight)	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 25 January 1999 (99/90/EC) (OJ L 29/38 of 03.02.1999) amended on 8 January 2001 (2001/586/EC) (OJ L 209/33 of 02.08.2001) 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
Coated Metal water stop sheet	For building works	-	3
	For uses subject to regulation on reaction to fire	E	3

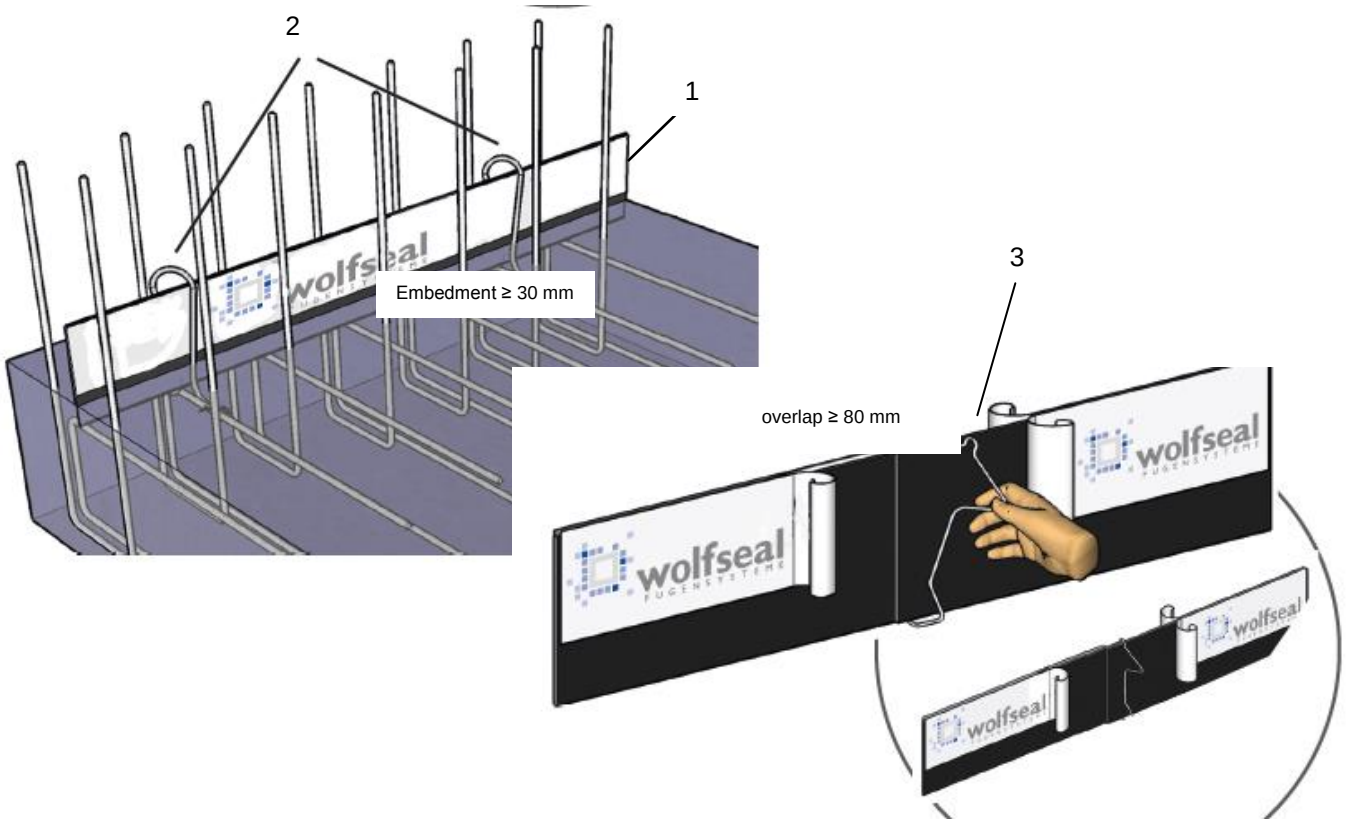
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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 4 Februay 2016 by Deutsches Institut für Bautechnik

Uwe Bender
Head of Department

beglaubigt:
Hemme



1 Coated metal water stop "Wolfseal KB 16", "Wolfseal FTS", und "Wolfseal OBS" protection foil partially removed – for horizontal and vertical joints construction joints
2 Holder
3 Joint clip

Performance of the product:

Reaction to fire acc. to EN 13501-1	Class E
Use category related to BWR 3	S/W 2
Content and/or releases of dangerous substances	see section 3.3
Watertightness in end use conditions h = 167 mm, t = 0.6 mm Wolfseal KB 16 Wolfseal FTS Wolfseal OBS	 up to 8 m up to 20 m up to 20 m
Bondstrength at the state of delivery	> 0.8 N/mm²
Bondstrength after heat aging	pass (< 20 %)
Volatile compounds	pass (< 3 %)

Wolfseal KB 16, Wolfseal FTS, Wolfseal OBS
Roland Wolf GmbH

System built-up, use categories and performances of the product

Annex A1

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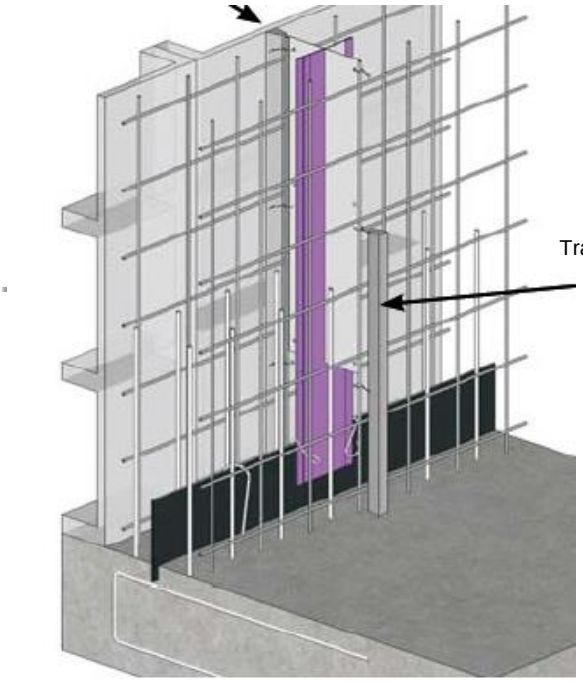
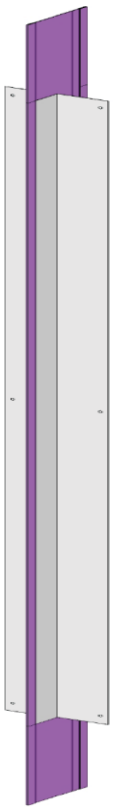
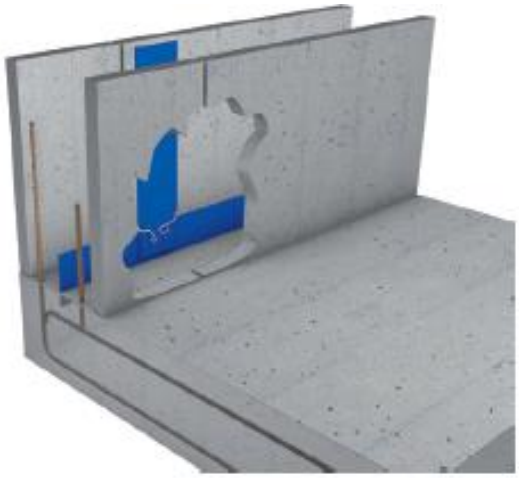
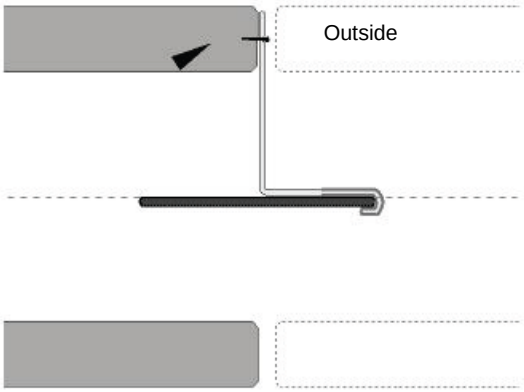
wolfseal OBS - for controlled crack joints in concrete





wolfseal FTS – for controlled crack joints in pre-cast elements





Wolfseal KB 16, Wolfseal FTS, Wolfseal OBS, **Roland Wolf GmbH**	Annex A2
Description of equipment	

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Installation

The levels of use categories and the performance of the waterproofing product 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 as components of the products
- Installation with the required tools
- Inspecting the substrate surface and the joint surface for cleanliness and correct treatment

- During storage and installation the water stop must be protected from excessive warming.
- The water stop is generally located in the center of the construction joints respectively crack control sections.
- The embedment in the concreting steps must be at least 30 mm.
- The distance between water stop and the edge of the construction element must be at least 50 mm respectively at least three times of maximum grain size.
- The water stop has to be attached with variable retaining clips on or at the reinforcement. During concreting the water stop should not move and should not float.
- The overlapping between the water stops is at least 80 mm. After removing the protective foil, the water stops are pressed tightly together. Finally, overlapping has to be secured with the joint clips.
- The second part of the protection foil has to be removed earliest after the concreting of the first concreting step.
- Inspecting of position and fixing of the water stop during installation and of the finished installed water stop respectively after the 1. concrete step and documentation of the results.