

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-16/0601
of 20 July 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

CEMflex VB, CEMflex VB NG, CEMflex VB Abschalblech

Product family
to which the construction product belongs

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

Manufacturer

BPA-GmbH
Behringstraße 12
71083 Herrenberg-Gültstein
DEUTSCHLAND

Manufacturing plant

BPA-GmbH
Behringstraße 12
71083 Herrenberg-Gültstein
DEUTSCHLAND

This European Technical Assessment
contains

9 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

European Assessment Document (EAD) 320002-02-0605

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Specific Part

1 Description of the product

The water stop "CEMflex VB" consists of the following components:

- Galvanized metal sheet with the dimensions:
h = 90 mm, t₀ = 0,75 mm,
h = 100 mm, t₀ = 0,75 mm or
h = 120 mm, t₀ = 0,75 mm,
h = 150 mm, t₀ = 0,75 mm,
- special coating mineral-based

For installation purposes the water stop could be delivered with "CEMflex"-clips for the fixing of overlapping. Furthermore, the water stop could be fixed with "CEMflex" Omega-holder. The contact of the "active" coating with the alkaline humidity/concrete provokes a crystallisation and fusion, which ensure the permanent watertightness of the jointing.

There are the following types of products:

"CEMflex VB" and "CEMflex VB NG" - for all Construction joints

"CEMflex VB" Abschaltblech only for Construction joints between walls and between floors.

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 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 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 to the assumption of a 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 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 Safety and accessibility (BWR 4)

Not applicable

3.4 Protection against noise (BWR 5)

Not applicable

3.5 Energy economy and heat retention (BWR 6)

Not applicable

3.6 Sustainable use of natural resources (BWR 7)

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

3.7 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

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

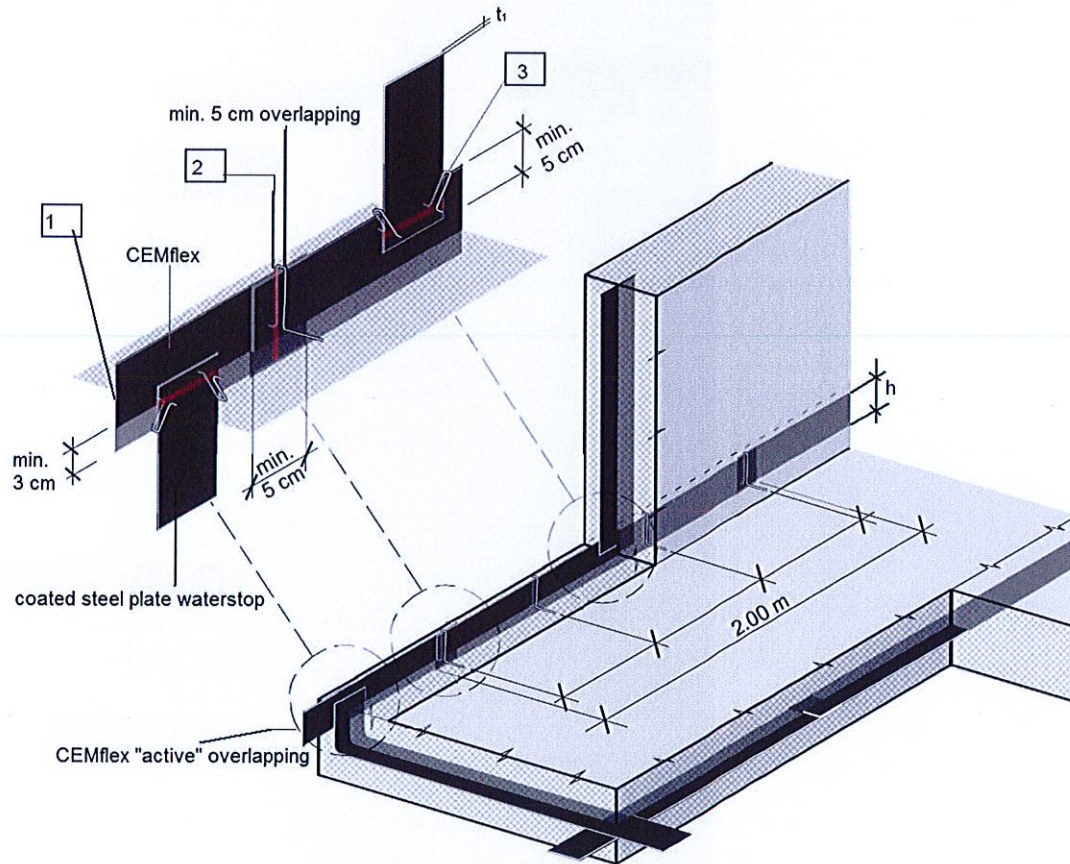
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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

Issued in Berlin on 20 Juli 2016 by Deutsches Institut für Bautechnik

Uwe Bender
Head of Department

beglaubigt:
Gnamou



- 1 Coated metal water stop "CEMflex VB"
for all construction joints
- 2 CEMflex Omega-holder
- 3 CEMflex-clip

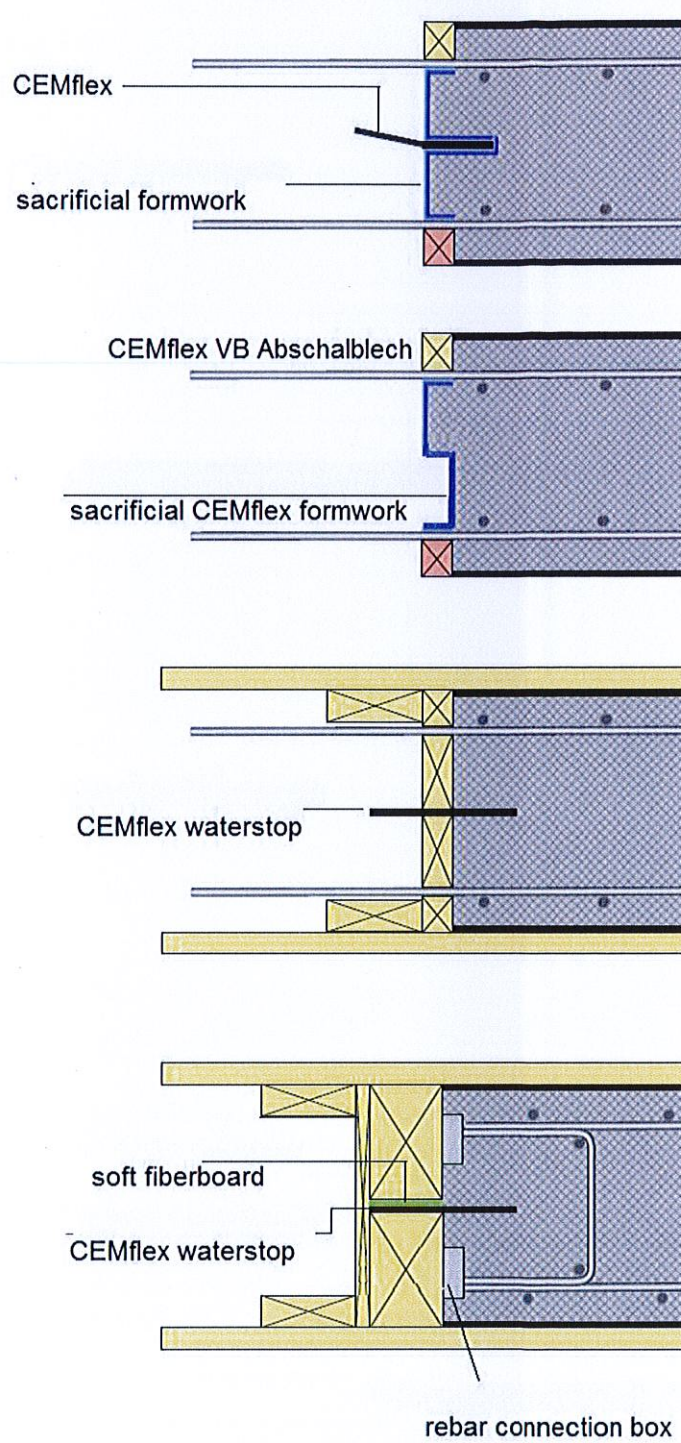
Performance of the product:

Reaction to fire acc. to EN 13501-1	Class E	
Watertightness in end use conditions		
h = 150 mm, t _i = 1,25 mm	Class a)	Class b) and c)
h = 120 mm, t _i = 1,25 mm		
h = 100 mm, t _i = 1,25 mm	Watertight up to 20 m	Watertight up to 4 m
h = 90 mm, t _i = 1,25 mm		
Bondstrength at the state of delivery	> 0.8 N/mm ²	
Bondstrength after heat aging	pass (< 20 %)	

CEMflex VB, CEMflex VB NG, CEMflex VB Abschaltblech
BPA- GmbH

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

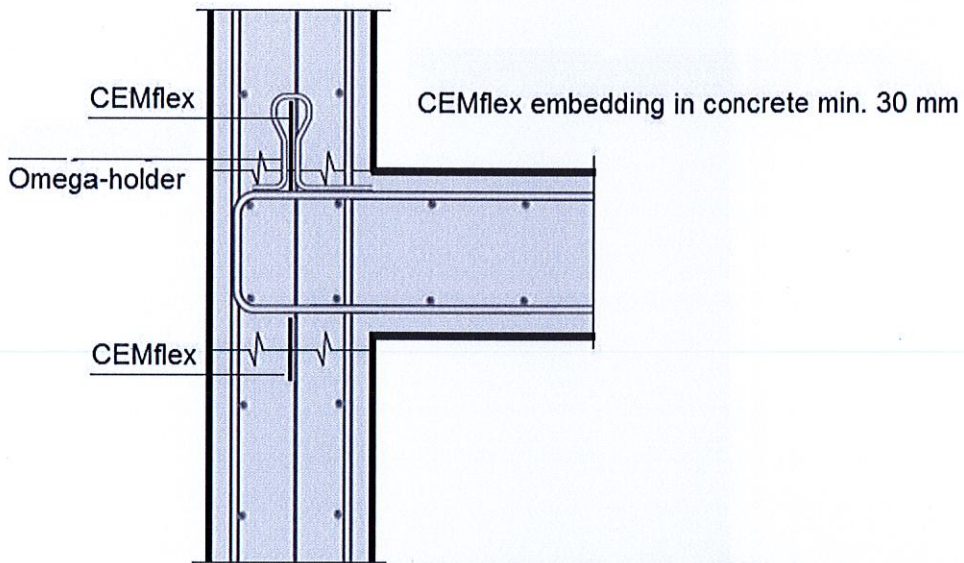
Annex A1



CEMflex VB, CEMflex VB NG, CEMflex VB Abschaltblech
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Description of equipment

Annex A2



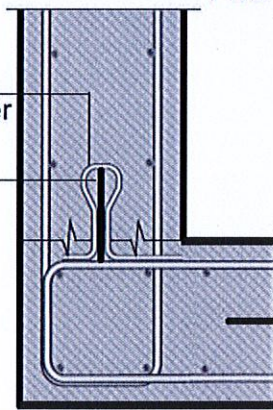
CEMflex
THE ACTIVE WATERSTOP

CEMflex VB

CEMflex Omega-holder

CEMflex

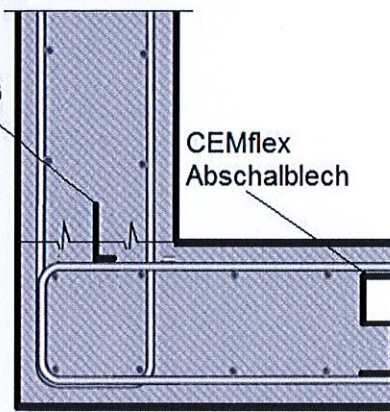
min. 3 cm



CEMflex VB NG

CEMflex
Abschalblech

min. 3 cm



CEMflex VB, CEMflex VB NG, CEMflex VB Abschalblech
BPA- GmbH

Description of equipment

Annex A3

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

- The water stop is generally located in the middle of the construction joints respectively 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 respectively at least three times of maximum grain size.
- The water stop has to be attached with appropriate CEMflex Omega-holder or with CEMflex-clip. During concreting the water stop should not move and should not float.
- According to the water pressure the overlapping between the water stops is at least 50 mm at 8 m and at least 200 mm at 20 m.

- 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.

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Intended use
Specifications

Annex B