

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0662
of 25 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

Brandschutzmatte PB-300

Product family
to which the construction product belongs

Intumescent product for use in penetration seals

Manufacturer

Polymeric GmbH
Landsberger Allee 378
12681 Berlin
DEUTSCHLAND

Manufacturing plant

Polymeric GmbH
Landsberger Allee 378
12681 Berlin
DEUTSCHLAND

This European Technical Assessment
contains

9 pages including 5 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 026 Part 2: "Penetration Seals",
used as EAD according to Article 66 Paragraph 3 of
Regulation (EU) No 305/2011.

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Specific Part

1 Technical description of the products

The construction product "Brandschutzmatte PB-300" consists of an intumescent material. It is provided in the form of mats, strips or one-sided self-adhesive tapes. When exposed to high temperatures, the material expands creating a foam which seals joints, cracks and openings. It thus prevents the passage and spread of heat, flames and/or smoke.

Detailed specifications and fire safety related performance criteria in relation to the construction product are given in Annex 1.

NOTE:

The characteristics listed are suitable both for identifying the construction products as well as for performing the manufacturer's factory production control.

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

The construction product "Brandschutzmatte PB-300" is intended for use as a component with a fire protection effect in penetration seals that are subject to fire safety requirements. In the event of fire, the intumescent effect helps prevent the passage of heat and the spread of fire. The construction product "Brandschutzmatte PB-300" is intended for use in penetration seals.

Construction products for penetration seals are used to seal openings in fire-resistant walls and ceilings, which are penetrated by services.

This ETA served to verify the resistance to fire of penetration seals consisting of the construction products listed in Annex 1.

Their function is to preserve the walls' or floors' resistance to fire in the area of openings where services were fed through walls.

The construction product "Brandschutzmatte PB-300" may be used for penetration seals in interiors with high humidity and temperatures above 0° C (use category type Z1).

The performance data in Section 3 relates only to the cable and pipe penetration seals tested as part of this assessment (e.g. regarding the design and arrangement of the penetration seal components and the type and position of the services).

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	Class E in accordance with EN 13501-1
Resistance to fire of a penetration seal containing the product	The resistance to fire depends on the design and installation of the penetration seal and on the other components forming the penetration seal. More details on the tested penetration seals and the related fire resistance classes are given in Annexes 1 to 5.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content and release of dangerous substances	No dangerous substances ¹

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

In accordance with the European Technical Approval Guideline "Fire Stopping and Fire Sealing Products", ETAG 026, Part 2: "Penetration Seals", August 2011, which is used as European Assessment Document (EAD), the following legal base shall apply: 1999/454/EC.

The system to be applied is: system 1.

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 25 October 2017 by Deutsches Institut für Bautechnik

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Head of Department

beglaubigt:
Bisemeier

¹ In accordance with Regulation (EC) No 1272/2008 of the European Parliament and the European Council of 16 December 2008 (published in the Official Journal of the European Communities L 353 of 31 December 2008, p. 1)

Properties and performances criteria of the construction product "Brandschutzmatte PB-300"

Properties	Test method	Characteristic value
Thickness		2,0 mm ± 0,2 mm
Density (delivery state)	EN ISO 2811-1	1,20 g/cm ³ ± 10%
Mass loss during heating*	EN ISO 3451-1; EOTA TR 024:2009	49 % to 59 %
Expansion ratio	ETAG 026-2**	15,5 to 20,5 (tested with samples of a thickness of ~ 1,9 mm)
Expansion pressure	ETAG 026-2**	0,75 to 1,2 N/mm ²
Fire behavior	EN 13501-1	Classification of fire behavior according to EN 13501-1: Class E

The properties listed can be used both for the identification of the construction product and for the implementation of the factory production control of the manufacturer.

Implementation details for the factory production control are included in the inspection plan.

Description of the additional components of the tested sealings in accordance to Annexes 3 to 5

"Halogenfreier Brandschutzschaum PB-165"	Material: Polyurethane-based two-component foam according to ETA-12/0279 Classification of fire behavior according to EN 13501-1: Class E
Gypsum mortar	Classification of fire behavior: Class A1 according to the commission decision 96/603/EC (in the amended version)
Boards for frames	The frames consist of gypsum plasterboard according to EN 520, Typ F with a minimum thickness of 20 mm. Classification of fire behavior according to EN 13501-1: Class A2
additional panels	The additional panels consist of strips of building boards Type "PROMATECT H" according to ETA-06/0206 with a minimum thickness of 250 mm. Classification of fire behavior according to EN 13501-1: Class A1

* The composition of the materials is deposited at DIBt.

** tested according to ETAG 026-2 (also see TR 024)

Brandschutzmatte PB-300	Annex 1
Properties and performances	

Performances of penetration seals, comprising the construction product "Brandschutzmatte PB-300"

	Essential requirement	Test method	Construction of the sample	Performance acc. to EN 13501-2
1	Resistance to fire	EN 1366-3	100 mm thick flexible wall; design and layout of the penetration seal according to Annex 3*	EI 90
2	Resistance to fire	EN 1366-3	100 mm thick rigid wall; design and layout of the penetration seal according to Annex 3*	EI 90
3	Resistance to fire	EN 1366-3	100 mm thick flexible wall; design and layout of the penetration seal according to Annex 4*	EI 90
4	Resistance to fire	EN 1366-3	150 mm thick rigid floor; design and layout of the penetration seal according to Annex 5*	EI 90

* Illustrations without guarantee for completeness

The use of the construction product "Brandschutzmatte PB-300" in penetration seals shall be in accordance with national requirements for planning, design and execution and in accordance with the installation instruction of the manufacturer.

The tested/illustrated seals are only examples for the use.

Brandschutzmatte PB-300

Properties and performances

Annex 2

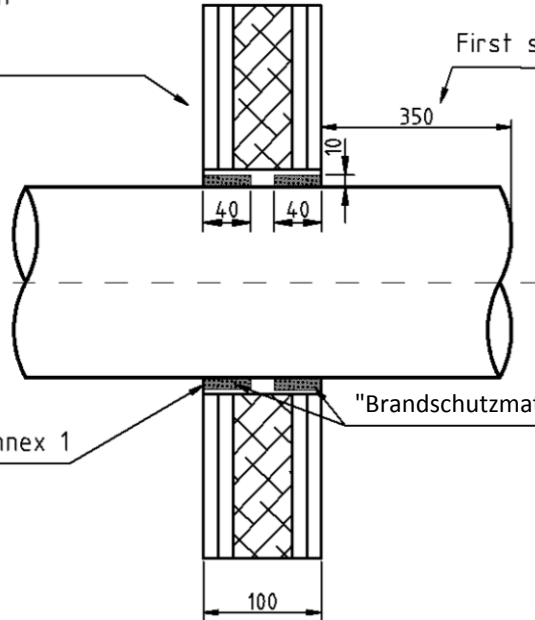
Cross Section

Flexible wall construction
according to EN 1366-3;
EI 90 (EN 13501-2)

Thermoplastic pipe
PVC-U $\phi 63 \times 4,7$

Filling according to Annex 1

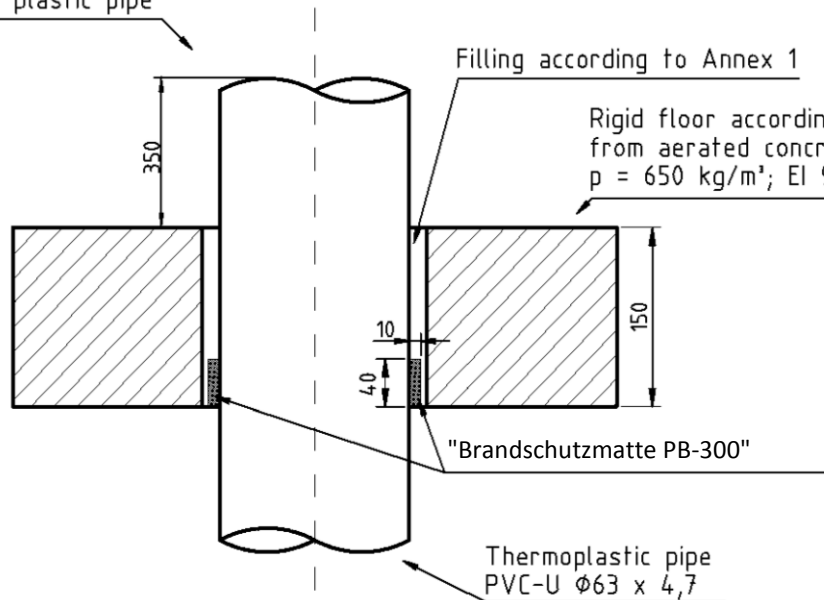
First support of the plastic pipe



First support of the plastic pipe

Filling according to Annex 1

Rigid floor according to EN 1366-3
from aerated concrete plates,
 $\rho = 650 \text{ kg/m}^3$; EI 90 (EN 13501-2)



Dimensions in mm

Brandschutzmatte PB-300

Use as a component of a pipe penetration seal with the fire resistance class EI 90-U/U
- Example for installation in a wall and a floor; cross section

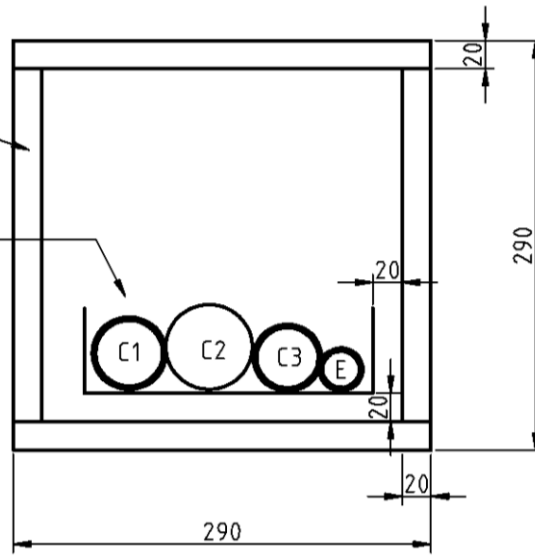
Annex 3

English translation prepared by DIBt

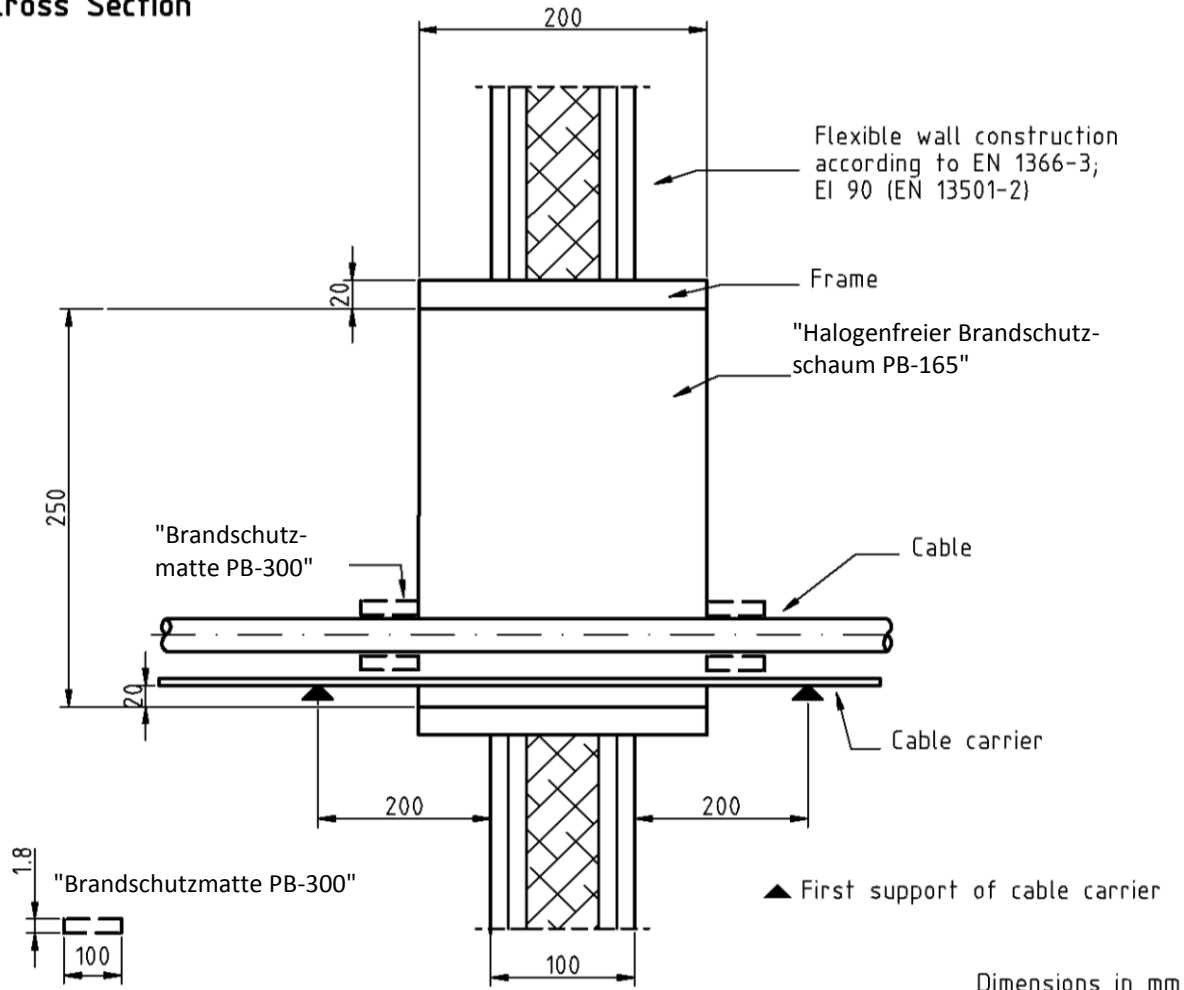
View

Wrapping of the cables C1, C3, E (EN 1366-3) with "Brandschutzmatte PB-300"

Frame



Cross Section



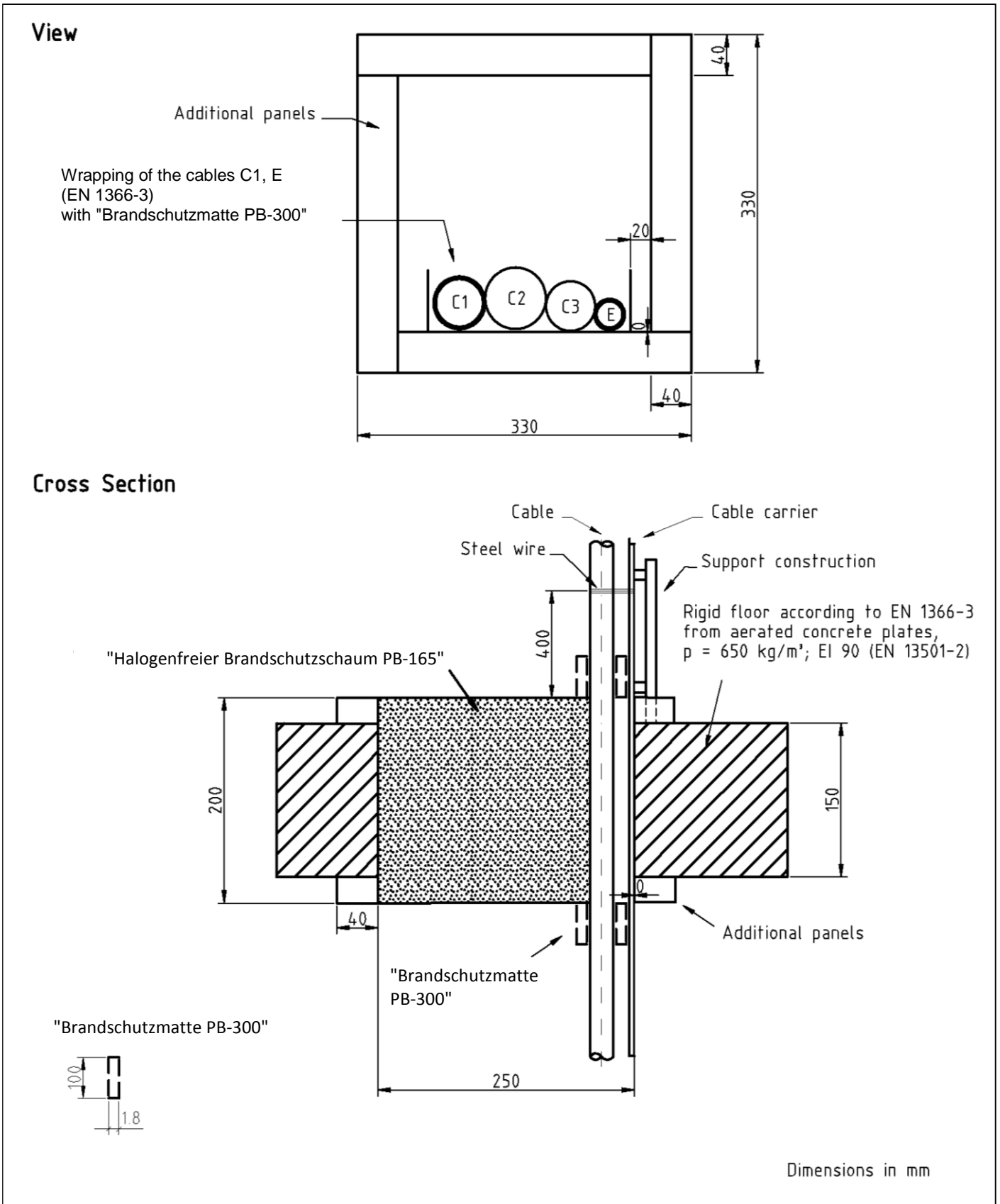
Dimensions in mm

Brandschutzmatte PB-300

Use as a component of a pipe penetration seal with the fire resistance class EI 90
- Example for installation in a wall; view and cross section

Annex 4

English translation prepared by DIBt



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Brandschutzmatte PB-300	Annex 5
Use as a component of a pipe penetration seal with the fire resistance class EI 90 - Example for installation in a floor; view and cross section	