Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

Member of EOTA
www.eota.eu

Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment ETA-25/0809 of 13 October 2025

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	SikaSeal-646 Fire Coating
Product family to which the construction product belongs	Intumescent product for use in penetration seals
Manufacturer	Wolman Wood and Fire Protection GmbH Robert-Hansen-Straße 1 89257 Illertissen GERMANY
Manufacturing plant	Wolman Wood and Fire Protection GmbH Robert-Hansen-Straße 1 89257 Illertissen
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	350454-00-1104

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.

Specific part

1 Technical description of the product

The construction product "SikaSeal-646 Fire Coating" is an intumescent material. It is delivered as liquids of white colour in canisters. When exposed to fire it expands and creates foam which seals gaps, joints and holes and therefore prevents the passage of heat, flame and/or smoke.

Detailed technical specifications and performance criteria relevant for fire safety with regard to the construction products are given in Annex 1.

NOTE:

The characteristics listed can serve 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 "SikaSeal-646 Fire Coating" is intended to be used as a component with a fire protection effect in penetration seals.

Penetration seals are parts of the works which prevent heat transmission and fire spreading in the event of fire in areas where fire resistant walls and/or floors are penetrated by services.

Within the scope of this ETA, the fire resistance was demonstrated for mixed and blank penetration seals[1] which consisted of the components listed in Annex 2.

The construction product "SikaSeal-646 Fire Coating" was used in this penetration seals for the coating of mineral fiber boards which are installed within openings penetrated by cables and pipes, for the coating of a circumferential stripe on the surface of the wall or floor and of cables and cable supports.

Detailed information and data on the verified penetration seals are given in Annexes 1 to 5. The performances given in Section 3 relate only to this penetration seals (e.g. with respect to the design and arrangement of the components of the penetration seals and the type and position of the services).

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of at least 10 years for "SikaSeal-646 Fire Coating" when used under use conditions of type Z_1 or Z_2 according to EOTA TR 024. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right product 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

Safety in case of fire (BWR 2)

Essential characteristic	Performance
Fire resistance of a penetration seal containing the product	The fire resistance depends on the construction/installation of the penetration seal and on the other components incorporated in the penetration seal. Details on the verified penetration seals and the related fire resistance classes are given in Annexes 1 to 5.

[1] Mixed penetration seals are used to seal off openings penetrated by both cables and pipes. Blank penetration seals serve to demonstrate the preservation of the fire resistance in case of a low number of services passing through the opening.

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

In accordance with EAD No. 350454-00-1104, the applicable European legal act is: 1999/454/EC.
The system to be applied is: 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 13 October 2025 by Deutsches Institut für Bautechnik

Ev Amelung-Sökezoğlu
Head of Section

beglaubigt:
Zielaskowski

Deutsches Institut für Bautechnik DIBt

Properties and criteria for the performance of the construction product "SikaSeal-646 Fire Coating"

	Properties	Parameter
1	Apparent density ("liquid") [kg/m³]	1300 ± 70
2	Nonvolatile components [%]	61,0 to 71,0
3	Weight loss due heating [%]	54,0 to 64,0
4	viscosity ("liquid") [mPa s]	30.000 to 50.000
5	Foam hight [mm]	90 to 125 Without any top load at 400 °C

The properties listed can be used both for identifying the construction products as well as for the implementation of the factory production control by the manufacturer.

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

Performance of the tested penetration seals containing the construction product "SikaSeal-646 Fire Coating"

	Essential requirement	Test method	Design of the test specimen	Performance
1	Resistance to fire	EN 1366-3	100 mm thick flexible wall; design and layout of the penetration seal according to Annexes 3 and 4*	EI 90
2	Resistance to fire	EN 1366-3	100 mm thick flexible wall; blank penetration seal (design analogue 1 but without services)	EI 90
3	Resistance to fire	EN 1366-3	150 mm thick aerated concrete floor; design and layout of the penetration seal according to Annexes 3 and 5*	EI 90
4	Resistance to fire	EN 1366-3	150 mm thick aerated concrete floor; blank penetration seal (design analogue 3 but without services)	EI 90

* Illustration without guarantee for completeness.
The use of the construction product "SikaSeal-646 Fire Coating" within 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.

SikaSeal-646 Fire Coating	Annex 1
Describtion of the construction products, properties and performance Properties of the construction product "SikaSeal-646 Fire Coating" and performance of penetration seals comprising "SikaSeal-646 Fire Coating"	

Deutsches Institut für Bautechnik DIBt

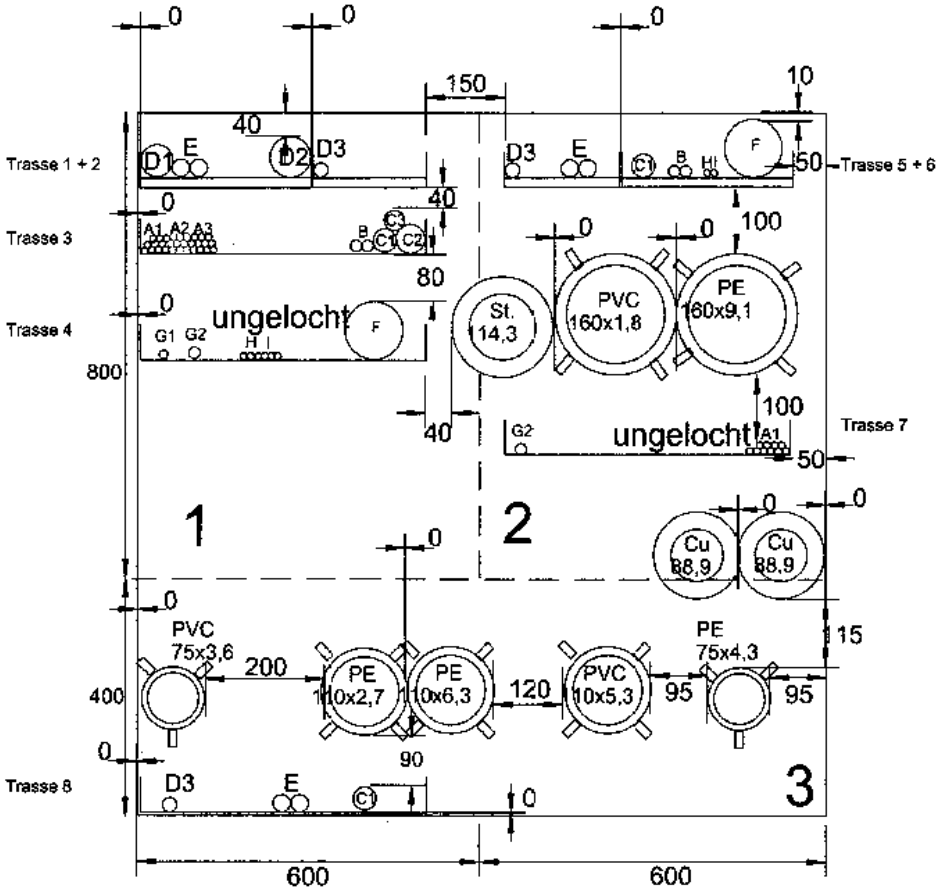
Description of additional components of the tested penetration seals

Designation / Manufacturer	Describtion
"**SikaSeal-647 Fire**" Wolman Wood and Fire Protection GmbH 89257 Illertissen Deutschland	**Intumescent material**, putty like according to ETA-25/0808
"Hardrock 040" ("Hardrock II") Deutsche Rockwool Mineralwoll GmbH 45966 Gladbeck Deutschland	**Mineral fiber board** according to DIN EN 13162 Thickness: 60 mm Nominal density: 150 kg/m³ Reaction to fire class according to DIN EN 13501-1: class A1
"FPB D150" Knauf Insulation d.o.o. Skofja Loka Slovenien	**Mineral fiber board** according to DIN EN 13162 Thickness: 60 mm Nominal density: 150 kg/m³ Reaction to fire class according to DIN EN 13501-1: class A1
"SikaSeal-661 Fire Collar" Wolman Wood and Fire Protection GmbH 89257 Illertissen Deutschland	**Pipe collar** with steel housing and intumescent material according to ETA-25/0805
"Rohrschale 800" ("Lapinus Rohrschale") Deutsche Rockwool Mineralwoll GmbH 45966 Gladbeck Deutschland	**Mineral fiber pipe section** according to DIN EN 14303 Thickness: 30 mm Nominal density: 100 kg/m³ Reaction to fire class according to DIN EN 13501-1: class A1

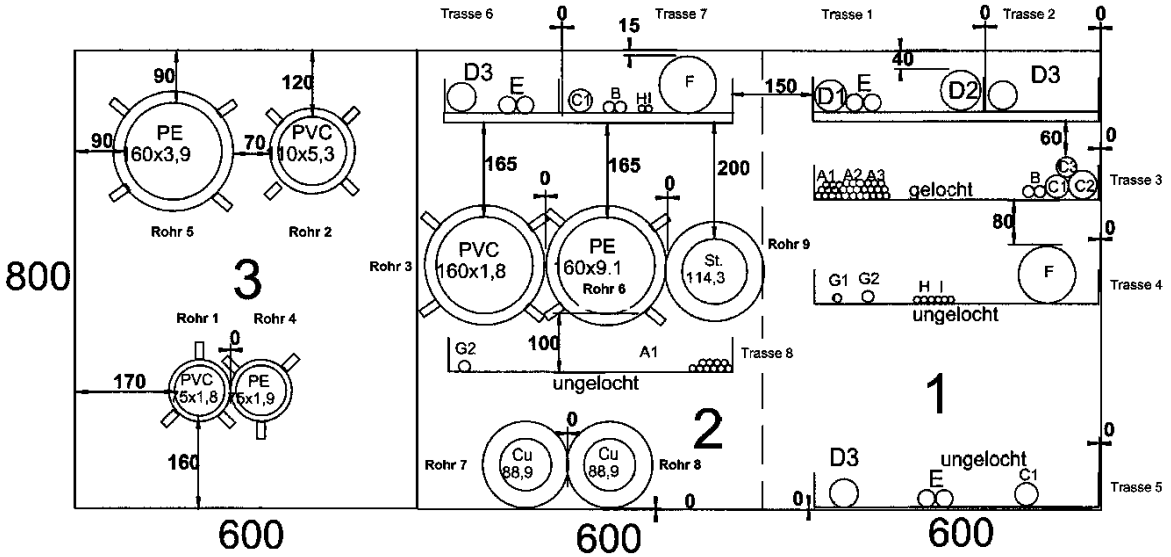
SikaSeal-646 Fire Coating	Annex 2
Describtion of the construction products, properties and performance Properties of additional components of tested penetration seals	

Deutsches Institut für Bautechnik DIBt

Layout of the test specimen for wall installation



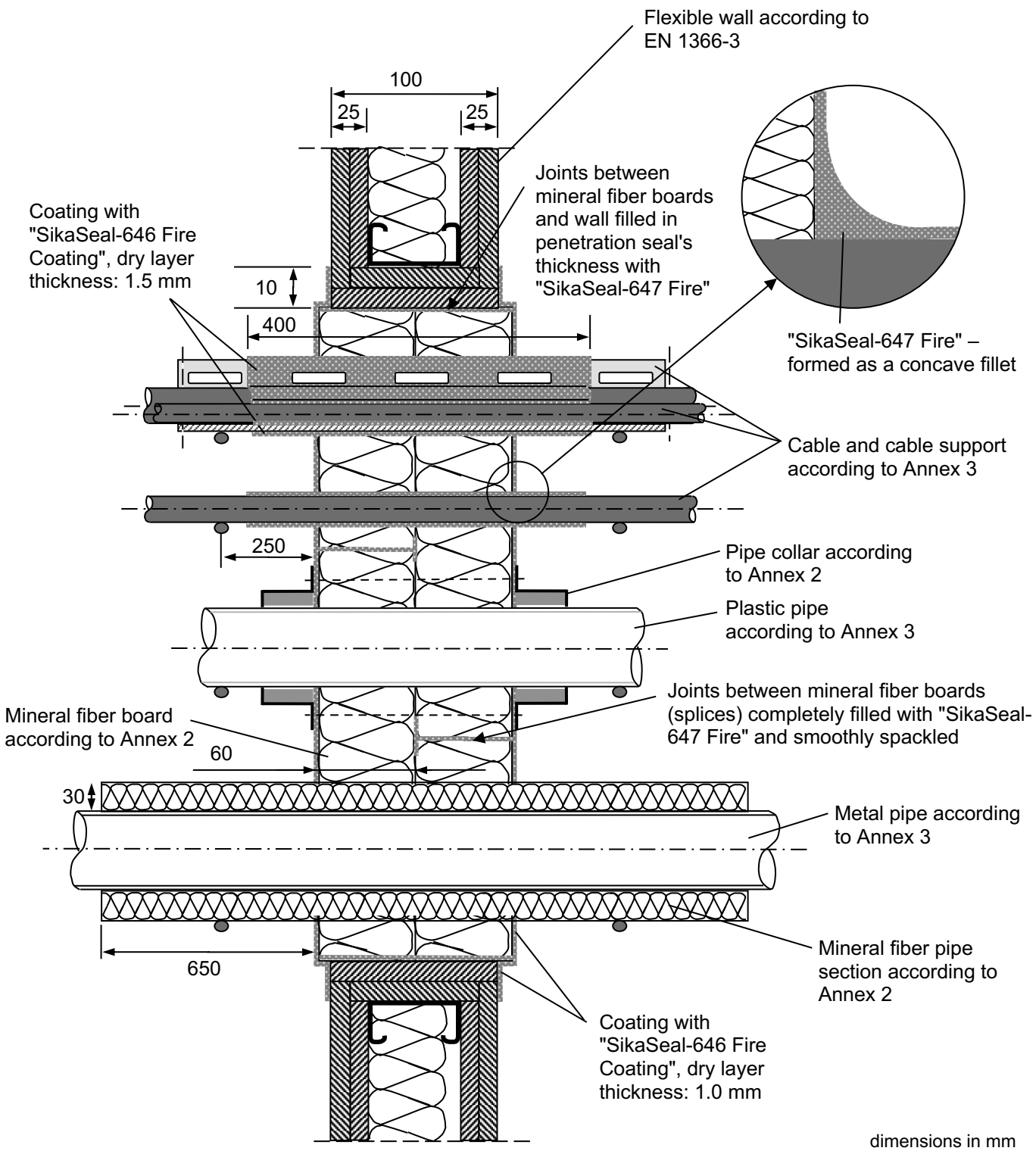
Layout of the test specimen for floor installation



dimensions in mm

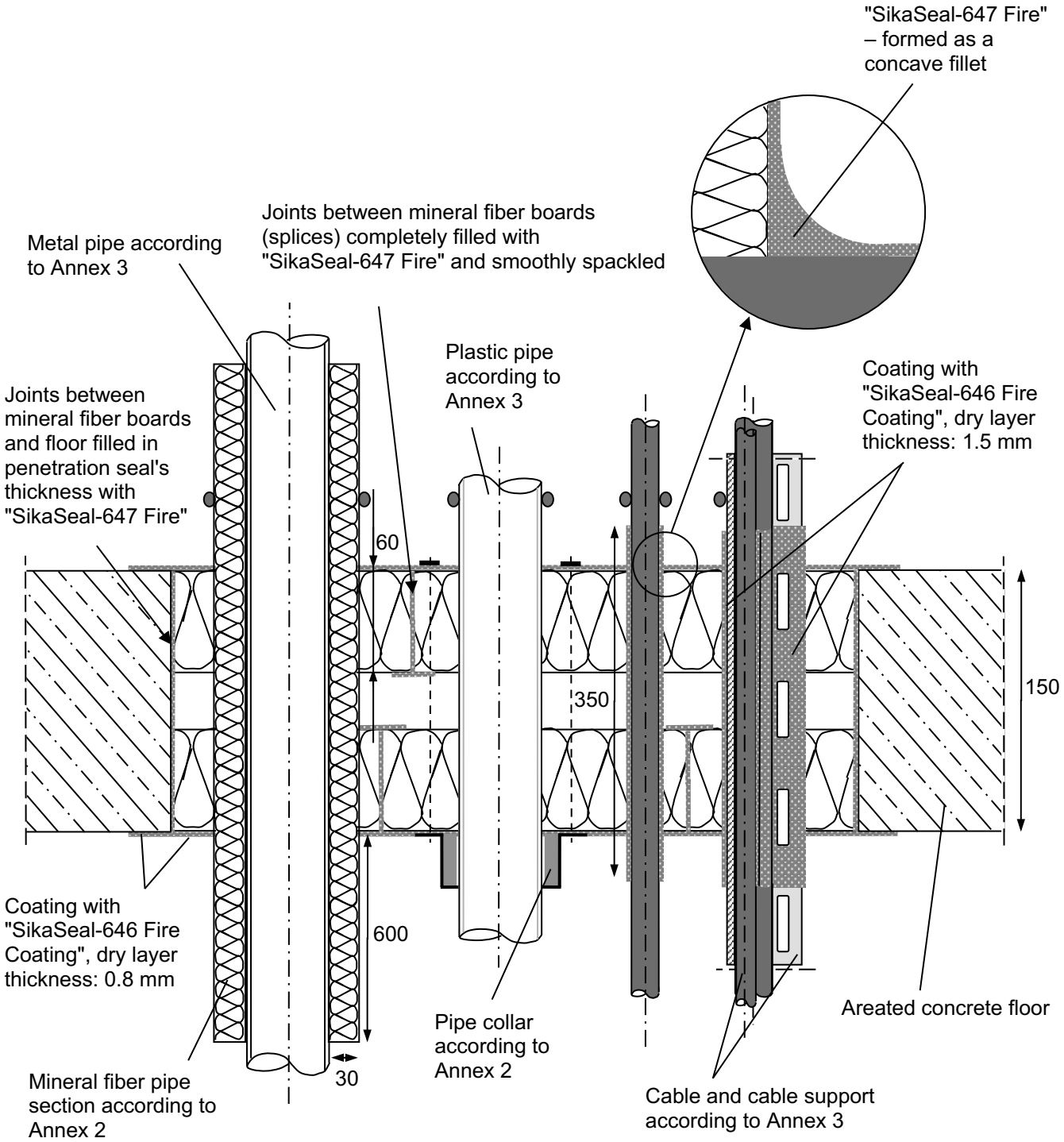
SikaSeal-646 Fire Coating	Annex 3
Use as part of a mixed penetration seal with a resistance to fire class **EI 90** Layout of the test specimens in wall and floor – front view	

Wall installation of the penetration seal - section:



SikaSeal-646 Fire Coating	Annex 4
Use as part of a mixed penetration seal with a resistance to fire class **EI 90** Wall installation – section	

Floor installation of the penetration seal - section:



dimensions in mm

SikaSeal-646 Fire Coating	Annex 5
Use as part of a mixed penetration seal with a resistance to fire class **EI 90** Floor installation – section	