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European Technical Assessment Body  
for construction products



## European Technical Assessment

**ETA-25/0147**  
**of 10 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-643 Fire

Product family  
to which the construction product belongs

Product for use in penetration seals - viscos fire sealant

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

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## Specific Part

### 1 Technical description of the product

The construction product "SikaSeal-643 Fire" is a viscos mass which expands under heat exposure.

In case of fire, the construction product forms a protective layer which prevents the passage of heat, flames and/or smoke.

A detailed technical description 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 product 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-643 Fire" 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, its reactive effect helps prevent the passage of heat and the spread of fire. The construction product "SikaSeal-643 Fire" is intended for use in penetration seals.

Construction products for penetration seals are used to seal openings in fire-resistant floors and walls, which are penetrated by services. Their function is to preserve the walls' or floors' resistance to fire in the area of openings where services were fed through.

This ETA served to verify the resistance to fire of penetration seals consisting of the products listed in Annexes 1 and 2.

The performance data in Section 3 relates only to the 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 mixed penetration seals <sup>1</sup> / multiple penetration seals for pipes <sup>1</sup> (including blank seal in accordance with EN 1366-3) containing the product, installed in flexible walls and rigid floors	max. EI 120 in accordance with EN 13501-2 (see Annexes 3 to 5)

#### 3.2 General aspects

Testing the essential characteristics includes the verification of durability.

The construction product "SikaSeal-643 Fire" may be used under end-use conditions in accordance with the provisions applying to use category X (external use) without significant changes in the characteristics relevant for fire protection to be expected.

<sup>1</sup> The fire resistance depends on the design and installation of the penetration seal, on the other components forming the penetration seal and on the penetrating services. Annexes 1 to 5 include details on the penetration seals for which the fire resistance indicated was demonstrated.

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

In accordance with EAD No. 350454-000-1104 the applicable European legal act is: 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 test plan (control plan) deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 10 October 2025 by Deutsches Institut für Bautechnik

Amelung-Sökezoğlu  
Head of Section

*beglaubigt:*  
Zielaskowski

### Properties and performances criteria of the construction product "SikaSeal-643 Fire"

Property/ Performance criteria	Parameter
Density	1400 kg/m <sup>3</sup> ± 100 kg/m <sup>3</sup>
Expansion ratio	7,0 bis 12,0 (tested on dried samples at 500°C for 30 minutes with a top-load) <sup>1</sup>
Expansion pressure	0,50 – 0,79 N/mm <sup>2</sup> (tested at 300°C without lateral restriction) <sup>1</sup>
Reaction to fire	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.

\* The product is an intumescent putty.

<sup>1</sup> Details to the test procedure are deposited at DIBt.

### Performances of tested penetration seals, comprising the construction product "SikaSeal-643 Fire"

No	Essential requirement	Test method	Construction of the sample	Performance acc. to EN 13501-2
1	Resistance to fire	EN 1366-3	200 mm thick mixed penetration seal with dimensions of 600 mm x 1000 mm (w x h) in a 100 mm thick flexible wall; design and layout of the penetration seal according to Annex 3*	EI 120
2	Resistance to fire	EN 1366-3	120 mm thick blank penetration seal with dimensions of 1200 mm x 1200 mm in a 100 mm thick flexible wall	EI 120
3	Resistance to fire	EN 1366-3	200 mm thick mixed penetration seal with dimensions of 800 mm x 800 mm in a 150 mm thick aerated concrete floor; design and layout of the penetration seal according to Annex 4*	EI 120**
4	Resistance to fire	EN 1366-3	150 mm thick multiple penetration seal for pipes with dimensions of 800 mm x 800 mm in a 150 mm thick aerated concrete floor; design and layout of the penetration seal according to Annex 5*	EI 120
5	Resistance to fire	EN 1366-3	150 mm thick blank penetration seal with dimensions of 1200 mm x 800 mm in a 150 mm thick aerated concrete floor (design analogue No 4*)	EI 120

\* Illustrations without guarantee for completeness

The tested/illustrated penetration seals are examples only.

\*\* without consideration of the cable with the designation "G2".

The use of the construction product "SikaSeal-643 Fire" 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.

SikaSeal-643 Fire

#### Description of the construction products, properties and performances

Properties of the construction product "SikaSeal-643 Fire" and performance of penetration seals comprising the construction product "SikaSeal-643 Fire"

Annex 1

#### Description of the additional components in the area of the tested penetration seals

Framing of the opening in the flexible wall	Gypsum plasterboard acc. to EN 520, Type F thickness: 12,5 mm Reaction to fire class A acc. to EN 13501-1
Beading for wall installation	Promatect-H according to doP No. 0749-CPR-06/0206-2018/2, thickness 25 mm, width 100 mm
Beading for floor installation	Promatect-L according to doP No. 0749-CPR-07/0296-2018/1, thickness 50 mm, width 100 mm

#### Description of the additional components of the tested penetration seals

Designation / Manufacturer	Description
<b>"SikaSeal-642 Fire"</b> Wolman Wood and Fire Protection GmbH 892578 Illertissen Germany	<b>Ablative sealant</b> , viscous mass according to ETA-25/0181
<b>"SikaSeal-641 Fire Coating"</b> Wolman Wood and Fire Protection GmbH 892578 Illertissen Germany	<b>Ablative coating</b> , liquid coating according to ETA-25/0183
<b>"Hardrock 040"</b> ("Hardrock II") Deutsche Rockwool Mineralwoll GmbH 45966 Gladbeck Germany	<b>Mineral wool board</b> according to DIN EN 13162 thickness: 60 mm nominal density: 150 kg/m <sup>3</sup> Reaction to fire class according to DIN EN 13501-1: class A1
<b>"SikaSeal-661 Fire Collar"</b> Wolman Wood and Fire Protection GmbH 892578 Illertissen Germany	<b>Pipe collar</b> with sheet steel housing and intumescent material according to ETA-25/0805
<b>"Rohrschale 800"</b> ("Lapinus Rohrschale") Deutsche Rockwool Mineralwoll GmbH 45966 Gladbeck Germany	<b>Mineral wool pipe section</b> according to DIN EN 14303 thickness: 30 mm nominal density: 100 kg/m <sup>3</sup> Reaction to fire class according to DIN EN 13501-1: class A2 <sub>L</sub> -s1, d0

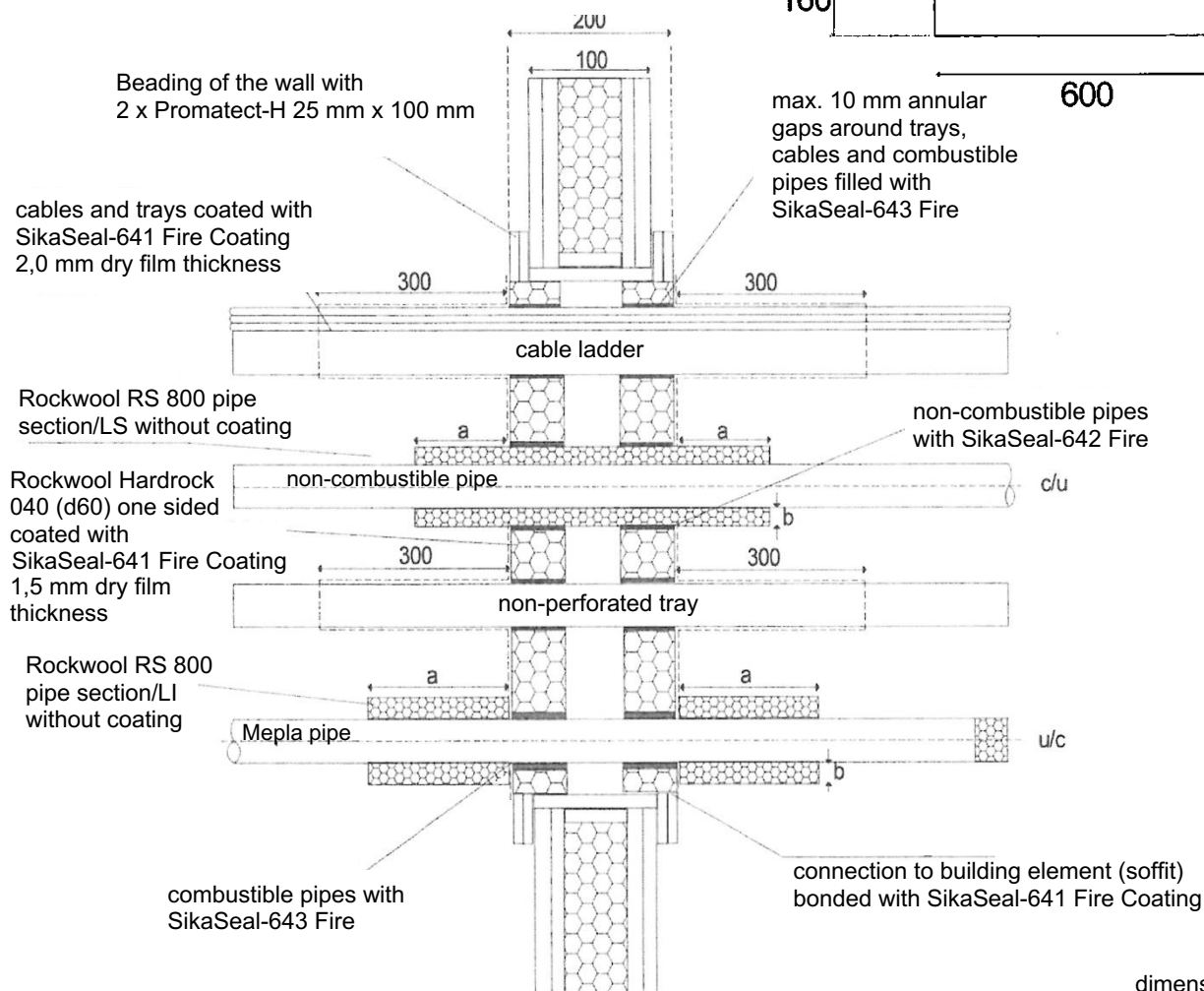
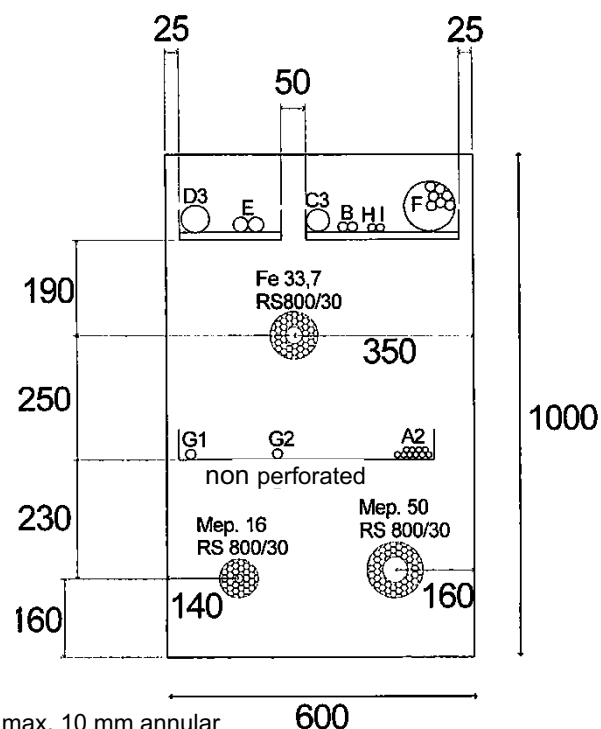
SikaSeal-643 Fire

#### Description of the construction products, properties and performances

Properties of additional components of penetration seals comprising the construction product "SikaSeal-643 Fire"

Annex 2

**Layout of the test specimen for wall application**  
**Seal thickness: 200 mm**

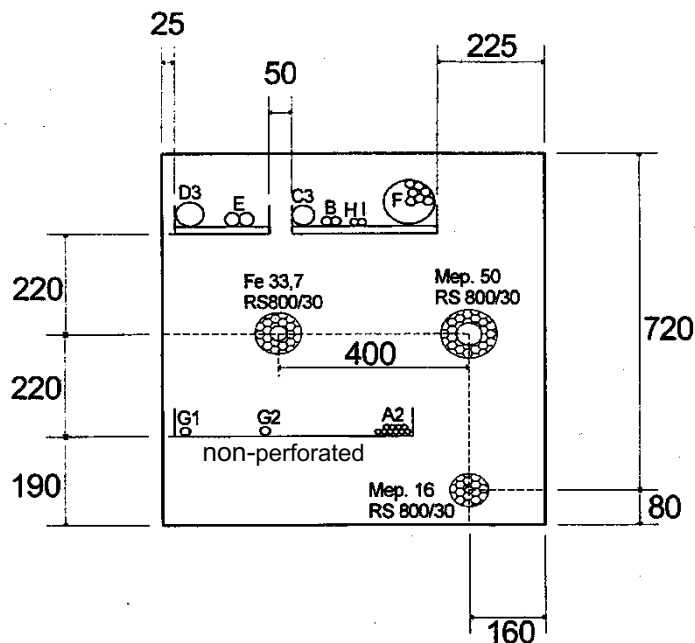


SikaSeal-643 Fire

Use as a component of a mixed penetration seal of resistance to fire class **EI 120**  
Layout of the test specimen in the flexible wall – seal thickness: 200 mm

Annex 3

# Layout of the test specimen for floor application Seal thickness: 200 mm



Rockwool RS 800 pipe  
section/LS without coating

Rockwool RS 800  
pipe section/LI  
without coating

cables and trays coated with  
SikaSeal-641 Fire Coating  
2,0 mm dry film thickness

max. 10 mm annular  
gaps around trays,  
cables and combustible  
pipes filled with  
SikaSeal-643 Fire

Rockwool Hardrock 040 (60  
mm) one sided coated with  
SikaSeal-641 Fire Coating  
1,5 mm dry film thickness

non-combustible pipes  
with SikaSeal-642 Fire

combustible pipes with  
SikaSeal-643 Fire

Beading of the floor with  
Promatect-L 50 mm x 100 mm

Connection to building element (soffit)  
bonded with SikaSeal-641 Fire Coating

dimensions in mm

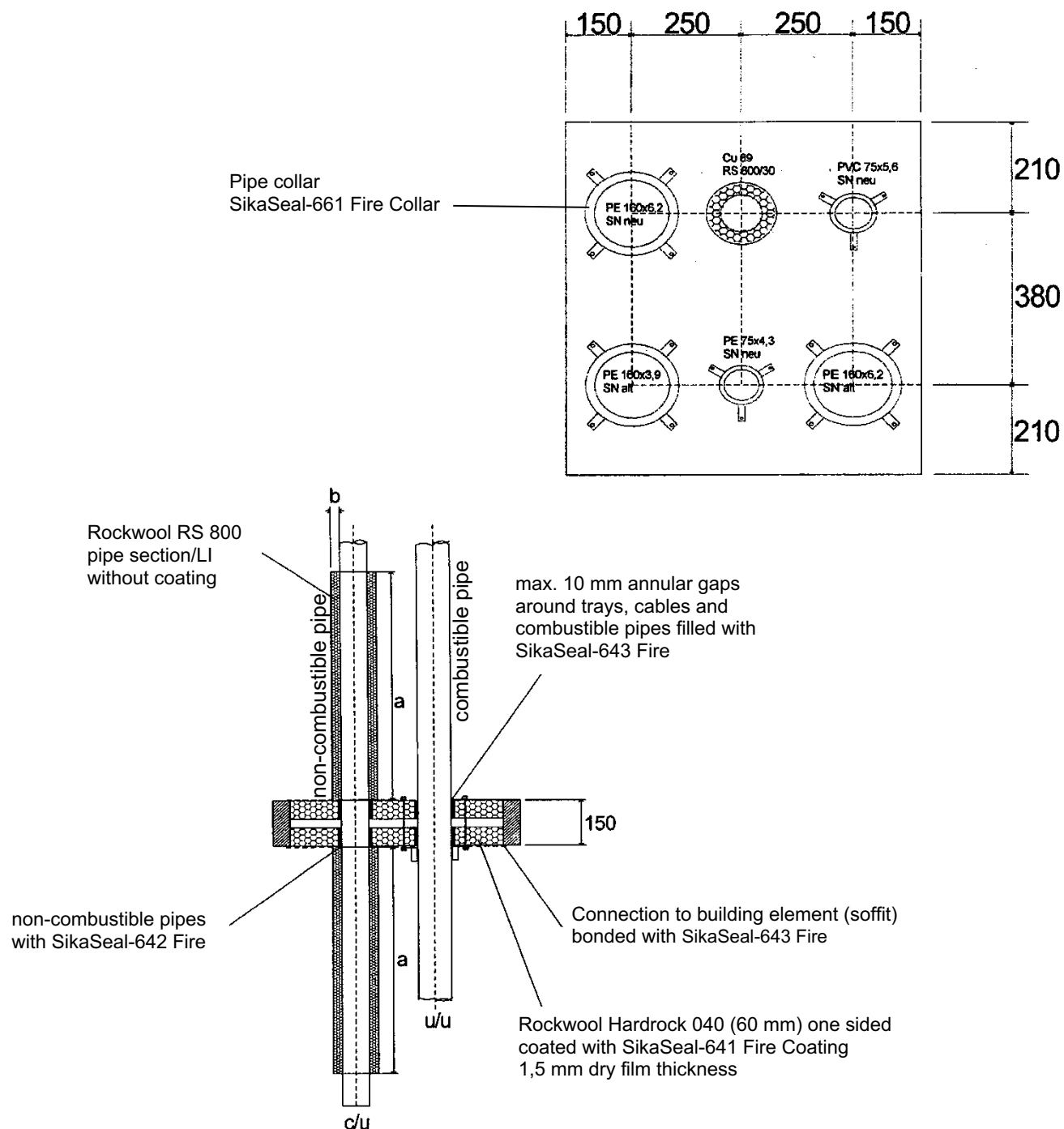
SikaSeal-643 Fire

Use as a component of a mixed penetration seal of resistance to fire class **EI 120**  
(optional non-shielded cables unconsidered)  
Layout of the test specimen in the floor – seal thickness: 200 mm

Annex 4



**Layout of the test specimen for floor application**  
**Seal thickness: 150 mm**



dimensions in mm

SikaSeal-643 Fire

Use as a component of a multiple pipe penetration seal of resistance to fire class **EI 120**  
Layout of the test specimen in the floor – seal thickness: 150 mm

Annex 5