

Certificates

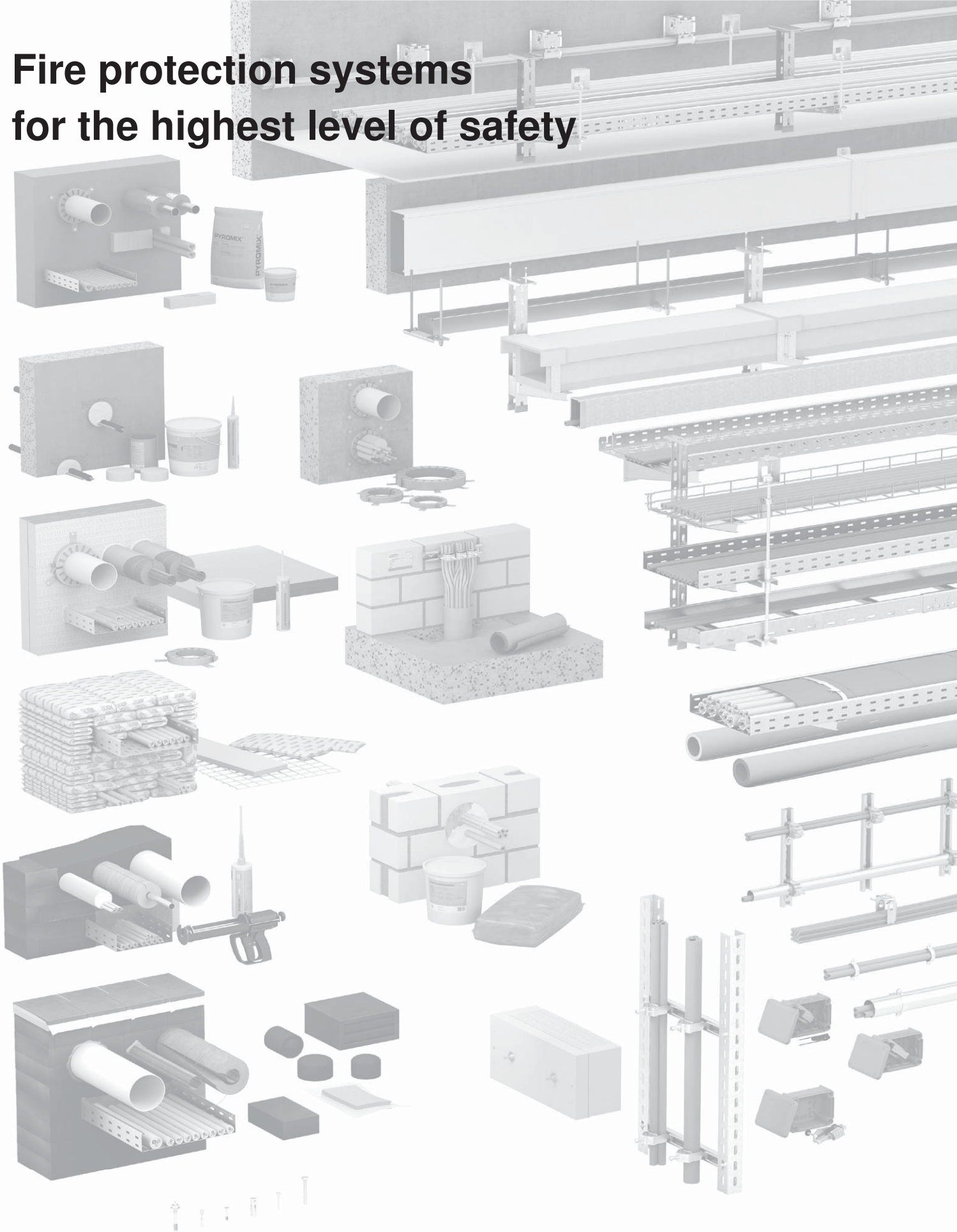
Insulation

PYROCOAT® Mastic DSC

European Technical Assessment No. ETA-25/0277 issued 2025/03/14

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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

European Technical Assessment ETA-25/0277 of 2025/03/14

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 66 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:	PYROCOAT® Mastic DSC
Product family to which the above construction product belongs:	Fire stopping product – penetration seals.
Manufacturer:	OBO Bettermann Produktion Deutschland GmbH & Co. KG Hüingser Ring 52 DE-58710 Menden Tel +49 2373 89-0 Internet www.obo-bettermann.com
Manufacturing plant:	Plant L
This European Technical Assessment contains:	19 pages including 3 annexes which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, based on:	EAD 350454-00-1104, Fire Stopping and fire sealing products – Penetration seals
This version replaces:	

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

The intumescent fire protection filler on water-based dispersion product PYROCOAT® Mastic DSC is a viscos, intumescent putty, consisting of intumescent substances and a binder. It hardens when applied on a substrate and forms a flexible intumescent layer which reacts in case of fire by expanding and generating foam.

The construction product PYROCOAT® Mastic DSC is delivered in cartridges, pails and containers of different capacity.

Detailed specifications for identification and performance criteria for fire safety regarding the construction product are given in the annexes of this ETA.

2 Specification of the intended use in accordance with the applicable European Assessment document (hereinafter EAD)

The construction product PYROCOAT® Mastic DSC is intended for use as a component with a fire protection effect in building elements, assembled systems or constructions that are subject to requirements related to fire protection. Their reactive effect prevents heat transmission and fire spreading in the event of fire.

Within the scope of this ETA, the fire resistance was demonstrated for pipe or cable penetration seals. Pipe or cable penetrations seals are used to seal off openings in fire resistant walls or floors, which are penetrated by cables and/or pipes, and serves to preserve the walls or floors fire resistance in the area of the penetrations.

More information in table 3: “Performance of the product and references to the methods used for its assessment”.

The intumescent fire sealing products are to be installed according to the manufacturer’s installation manual.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the PYROCOAT® Mastic DSC of 10 years, provided the manufacturers conditions for the packaging, transport, storage, installation, use, maintenance and repair are met.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or Assessment Body 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

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR2)	
Reaction to fire	The product is classified as **Class E** in accordance with EN13501-1, and the EC Delegated regulation 2016/364/EU.
Resistance to fire	Classification according to EN 13501-2: See Annex B for further information of fire-resistant designs.
3.3 Hygiene, health and the environment (BWR3)	
Content, emission and/or release of dangerous substances*	**No performance assessed**
Air permeability (material property)	**No performance assessed**
Water Permeability (material property)	**No performance assessed**
3.4 Safety in use (BWR4)	
Mechanical resistance and stability	**No performance assessed**
Resistance to impact/movement	**No performance assessed**
Adhesion	**No performance assessed**
Durability	Use category: **Type X**
3.5 Protection against noise (BWR5)	
Airborne sound insulation	**No performance assessed**
3.6 Energy Economy and heat retention (BWR6)	
Thermal insulation	**No performance assessed**
Water vapour permeability	**No performance assessed**

See additional information in section 3.8 – 3.9.

*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g., transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

3.8 Methods of verification

The characteristic values of the joint sealing system are based on the EAD 350454-00-1104, Firestopping and fire sealing products, Penetration Seals, assessed as a puttie, according to table 1.1 of the EAD.

3.9 General aspects related to the fitness for use of the product

The verification of durability is part of testing the essential characteristics. PYROCOAT® Mastic DSC may be used in end-use applications according to the provisions for use category X (intended for use in conditions exposed to weathering) without expecting significant changes of the characteristics relevant for fire protection. Products that meet the requirements for type X also meet the requirement for all other types.

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

PYROCOAT® Mastic DSC is manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

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

4.1 AVCP system

According to the decision 1999/454/EC of the European Commission, as amended, the system(s) of assessment and verification of constancy of performance is **system 1** (see Annex V to Regulation (EU) No 305/2011).

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 ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2025-03-14 by

Thomas Bruun
Managing Director, ETA-Danmark

Annex A
Description of the construction products, properties and performances

Properties and Performance of components of the construction product "PYROCOAT® Mastic DSC"

Properties	**Parameter**
Density	1300 kg/m³ ± 10%
Content of non-volatile components	65,0 % - 75,0 %
Weight loss on heating	54,0 % - 64,0 %
Expansion ratio	15 - 26,5
Expansion Pressure	1,00 - 1,90 N/mm²

Annex B
Resistance to fire classification of intumescent fire protection filler PYROCOAT® Mastic DSC mounted as single penetration seals

B.1 General information:

B. 1.1. Wall/floor constructions

a. Flexible wall
   The wall must have a minimum thickness of 100 mm and a metal profile frame lined on both faces with minimum 2 layers of 12,5 mm thick gypsum boards according to EN 520 type F.
   In case that wooden stand walls are applied, a minimum distance of 100 mm must be kept from each of the wooden stands to the seal, and the cavity between the stands and the seal must be filled with at least 100 mm insulation material compliant to class A1 or A2 (in acc. with EN 13501-1).
b. Solid wall
   Made of concrete or masonry with a thickness of ≥ 100 mm. (density 650±200 kg/m³)
c. Rigid floor
   Made of concrete or aerated concrete with a thickness of ≥ 150 mm (density 650±200 kg/m³).
d. Shaft wall
   In stud design with metal substructure and one-sided cladding of at least 2 layers made of building slabs with a thickness of 20 mm.

B.2.1 Flexible Walls

Intumescent fire protection filler	
Each side	depth: ≥ 25 mm
without backfilling	width: ≥ 10 mm - ≤ 25 mm
with backfilling	width: ≥ 10 mm - ≤ 50 mm
Total Thickness of penetration seal	≥ 100 mm
Working space between services	≥ 100 mm

B.2.2 Solid wall
Penetration seal:

Intumescent fire protection filler	
Each side	depth: ≥ 25 mm
without backfilling	width: ≥ 10 mm - ≤ 25 mm
with backfilling	width: ≥ 10 mm - ≤ 50 mm
Total Thickness of penetration seal	≥ 100 mm
Working space between services	≥ 100 mm

B.3 Rigid Floor
Penetration seal:

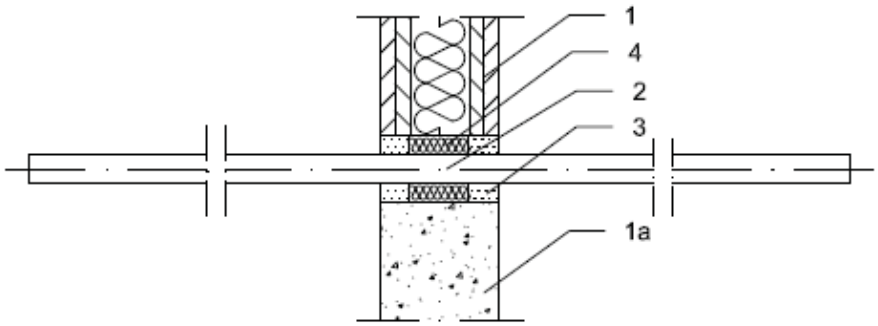
Intumescent fire protection filler	
Each side	depth: ≥ 25 mm
without backfilling	width: ≥ 10 mm - ≤ 25 mm
with backfilling	width: ≥ 10 mm - ≤ 50 mm
Total Thickness of penetration seal	≥ 150 mm
Working space between non insulated steel pipes ≤ 48,3 mm	≥ 0 mm
Working space between other services	≥ 100 mm

B.4 Shaft wall
Penetration seal:

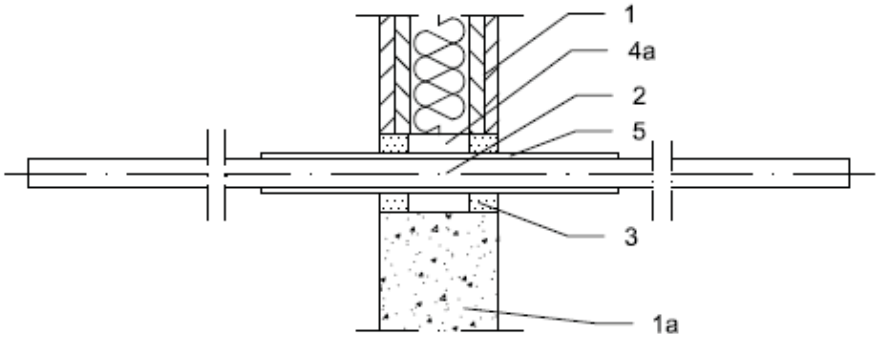
Intumescent fire protection filler	
Each side	depth: ≥ 20 mm
No backfilling	width: ≥ 10 mm - ≤ 25 mm
Total Thickness of penetration seal	≥ 40 mm
Horizontal working space between multilayer pipes KeKelit KELOX KM 110 (max. pipe Ø 32 mm)	≥ 0 mm
Working space between other services	≥ 100 mm

B.2.1 Flexible wall
B.2.2 Rigid wall

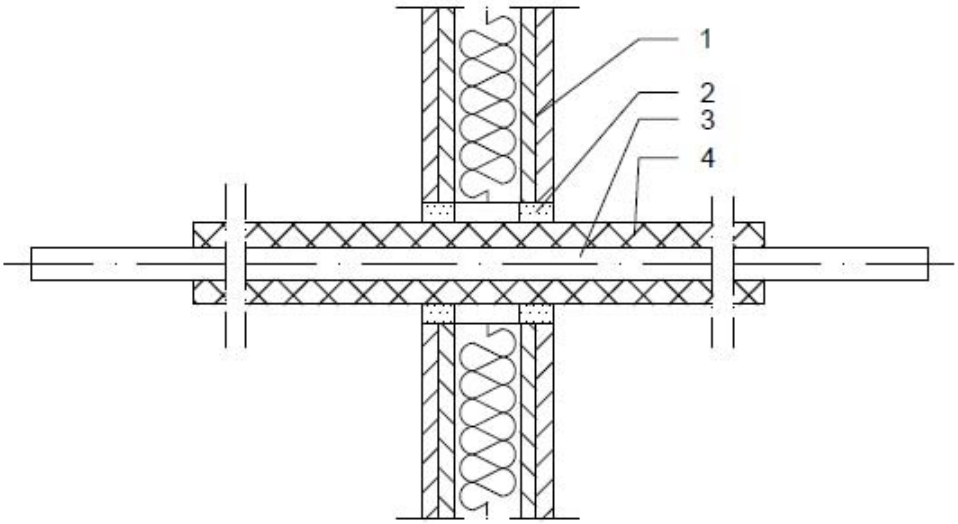
with backfilling



without backfilling



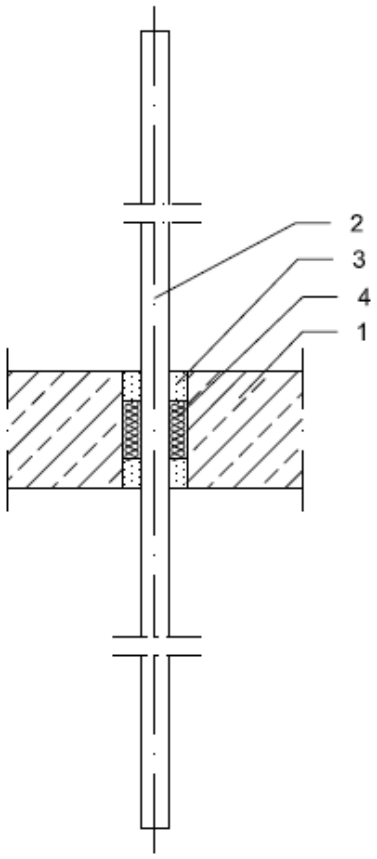
1. flexible wall
1a. rigid wall
2. installation
3. intumescent fire protection filler
4. backfilling mineral wool
4a. without backfilling
5 PE-insulation



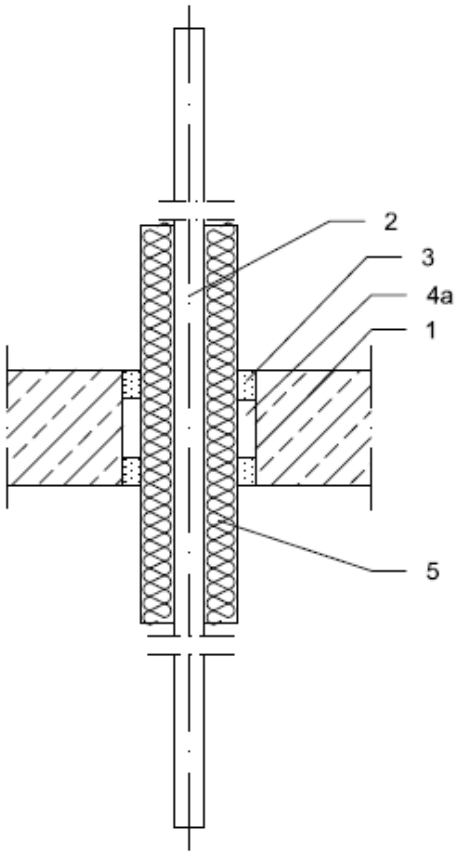
1 Flexible wall
2 Intumescent fire protection filler
3 Installation
4 FEF insulation

B.3 Rigid floor

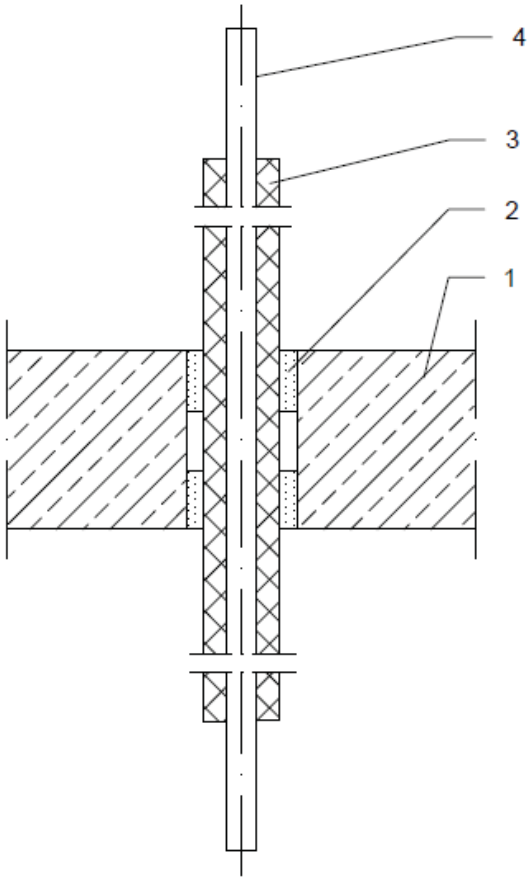
with backfilling



without backfilling

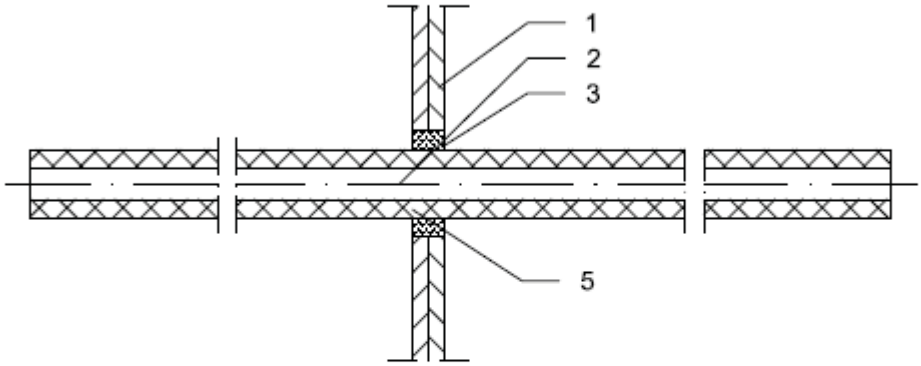


1. rigid floor
2. Installation
3. Intumescent fire protection filler
4. backfilling mineral wool
4a. without backfilling
5. mineral wool insulation



1 Rigid floor
2 Intumescent fire protection filler
3 FEF Insulation
4 Installation

B.4 Shaft wall



1. shaft wall
2. Installation
3. Intumescent fire protection filler
5. FEF insulation

Combustible pipes					
Type	Pipe-Ø [mm]	Pipe wall thickness [mm]	Back-filling	Classification	
				Wall	Floor
Regulated pipes with/without backfilling and with/without 5 mm PE acoustic insulation					
PVC-U according to EN 1329-1, EN 1453-1, EN ISO 1542-2, EN ISO 15493, EN ISO 15877-2, EN 1566-1	≤ 50	1,8	N	EI 120-U/U	EI 120-U/U
	≤ 75	1,8	N	EI 90-U/U	EI 120-U/U
	≤ 110	1,8 - 8,1	N/Y	EI 120-U/C	EI 120-U/C
PE acc. to EN 1519-1, EN 12201-1, EN ISO 15494, EN 12666-1, PE-X acc. to EN ISO 15875-2 ABS acc. to EN 1455-1, EN ISO 15493 SAN+PVC acc. to ISO 19220	≤ 50	1,8	N	EI 120-U/U	EI 120-U/U
	≤ 75	1,8 - 1,9	N	EI 90-U/U	-
	≤ 110	1,8 - 10	N/Y	EI 120-U/C	EI 120-U/C
PP-H according to EN ISO 15874, EN 1451-1, EN ISO 15494	≤ 50	1,8	N	EI 120-U/U	EI 120-U/U
	≤ 75	1,8 - 1,9	N	EI 90-U/U	-
	≤ 110	1,8 - 10	N/Y	EI 120-U/C	EI 120-U/C
Non-regulated pipes with/without backfilling and with/without 5 mm PE acoustic insulation					
Friatec Friaphone	52 - 110	2,8 - 5,3	N/Y	EI 120-U/C	EI 120-U/C
Pipelife Master 3	50	2,0	N	EI 120-U/U	-
	50 - 110	1,8 – 3,0	N/Y	EI 120-U/C	EI 120-U/C
Poloplast POLO-KAL 3S	75	3,8	N	EI 60-U/U	-
	75 - 110	3,8 – 4,8	N/Y	EI 120-U/C	EI 120-U/C
Poloplast POLO-KAL NG	50	2,0	N	EI 120-U/U	-
	50 - 110	2,0 – 3,4	N/Y	-	EI 120-U/C
Poloplast POLO-KAL XS	50	2,0	N	EI 120-U/U	-
	50 - 110	2,0 – 3,4	N/Y	-	EI 120-U/C
Geberit Silent Pro	50	3,2	N	EI 120-U/U	-
	50 - 110	3,0 – 4,5	N/Y	EI 90-U/C	EI 120-U/C
Geberit Silent PP	50	2,0	N	EI 120-U/U	-
	50 - 110	2,0 – 3,6	N/Y	-	EI 120-U/C
Geberit Silent db20	56	3,2	N	EI 120-U/U	-
	56 - 110	2,0 – 3,6	N/Y	-	EI 120-U/C
Rehau Raupiano Plus	50	1,8	N	EI 120-U/U	-
	50 - 110	1,8 – 2,7	N/Y	-	EI 120-U/C
Conel Drain	50	1,8	N	EI 120-U/U	-
Ostendorf Skolan Safe	58	4,0	N	EI 120-U/U	-
	58 - 110	4,0 – 5,3	N/Y	-	EI 120-U/C
Silenta Premium	58	5,3	N	EI 120-U/U	-
Valsir TriPlus	50	1,9	N	EI 120-U/U	-
	50 - 110	1,8 – 3,4	N/Y	-	EI 120-U/C
Wavin AS+	50	3,0	N	EI 90-U/U	-
Wavin Sitech+	50	2,1	N	EI 90-U/U	-
	32 - 110	1,8 – 3,4	N/Y	-	EI 120-U/C

Combustible pipes					
Type	Pipe-Ø [mm]	Pipe wall thickness [mm]	Back-filling	Classification	
				Wall	Floor
Multilayer pipes with/without backfilling and with/without 5 mm PE acoustic insulation					
Geberit Mepla	16	2,25	Y	EI 120-U/C	EI 120-U/C
	16	2,25	N	EI 90-U/C	EI 120-U/C
	≤ 50	2,25 – 4,0	Y	EI 90-U/C	EI 120-U/C
	≤ 50	2,25 – 4,7	N	-	EI 120-U/C
	≤ 75	2,25 – 4,7	Y	EI 30-U/C	EI 120-U/C
KeKelit KELOX KM 110	16	2,0	Y	EI 120-U/C	EI 120-U/C
	16	2,0	N	EI 90-U/C	-
	≤ 75	2,0 – 7,5	Y	EI 90-U/C	EI 120-U/C
UPONOR Uni Pipe Plus	≤ 32	2,0 – 3,0	Y	EI 120-U/C	EI 120-U/C
	≤ 32	2,0 – 3,0	N	EI 90-U/C	-
	32	3,0	N	EI 120-U/C	-
REHAU Rautitan stabil	≤ 40	2,0 – 6,0	Y	EI 120-U/C	EI 120-U/C
	≤ 40	2,0 – 6,0	N	EI 90-U/C	-
Fränkische Alpex F50	≤ 32	2,0 – 3,0	Y	EI 120-U/C	EI 120-U/C
Fränkische Alpex L	40	3,5	N/Y	EI 120-U/C	EI 120-U/C
	≤ 40	2,6 – 3,5	N	EI 90-U/C	-
	≤ 75	3,5 – 5,0	Y	EI 30-U/C	EI 120-U/C
	≤ 75	3,5 – 5,0	N	-	EI 120-U/C

Non-combustible pipes						
Type	Pipe-Ø [mm]	Pipe wall thickness [mm]	Insulation Length x width [mm]	Back-filling	Classification	
					Wall	Floor
Non-combustible pipes with/without backfilling and without insulation						
Copper	≤ 15,0	1,0	-	Y	-	EI 120-C/U*
	≤ 18,0					EI 90-C/U*
	≤ 22,0					EI 60-C/U*
Steel, stainless steel, cast iron	26,9	2,0	-	Y	EI 90-C/U	-
	≤ 42,4	2,3 – 14,2		Y/N	-	EI 120-C/U
	≤ 48,3	2,1 – 14,2		Y/N		EI 120-C/U*
	≤ 48,3	2,1 – 14,2		Y		EI 90-C/U**
Non-combustible pipes with/without backfilling and with lamella mat insulation (LS/CS)						
Copper	≤ 54	1,0 – 14,2	≥ 1000 mm x 30 - 60 mm	Y/N	EI 120-C/U	EI 120-C/U
	≤ 76	1,0 – 14,2	≥ 1500 mm x 30 - 60 mm	N	-	EI 120-C/U
	≤ 88,9	1,5 – 14,2	≥ 1500 mm x 30 - 60 mm	Y	EI 90-C/U	EI 90-C/U
	≤ 88,9	1,0 – 14,2	≥ 1500 mm x 60 mm	N	-	EI 120-C/U
Steel, stainless steel, cast iron	≤ 54	1,0 – 14,2	≥ 1000 mm x 30 - 60 mm	Y/N	EI 120-C/U	EI 120-C/U
	≤ 114	1,0 – 14,2	≥ 1500 mm x 30 - 60 mm	Y/N	EI 120-C/U	EI 120-C/U
Non-combustible pipes with/without backfilling and with lamella mat insulation (LI/CI)						
Copper	≤ 54	1,5 – 14,2	2 x ≥ 500 mm x 30 mm	N	EI 120-C/U	EI 120-C/U
Steel, stainless steel, cast iron	≤ 88,9	1,5 – 14,2	2 x ≥ 500 mm x 30 - 60 mm	N	EI 120-C/U	EI 120-C/U
	≤ 114	1,5 – 14,2	2 x ≥ 500 mm x 60 mm	N	EI 120-C/U	EI 120-C/U
	≤ 114	1,5 – 14,2	2 x ≥ 500 mm x 30 - 60 mm	N	-	EI 120-C/U
Non-combustible pipes with/without backfilling and with pipe shell insulation (CS)						
Copper	≤ 54	1,0 – 14,2	20 - 30 mm	Y/N	-	EI 120-C/U
	≤ 88,9	1,0 – 14,2	30 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 88,9	1,0 – 14,2	30 mm	N	EI 90-C/U	EI 120-C/U
Steel, stainless steel, cast iron	≤ 54	1,0 – 14,2	20 - 30 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 54	1,0 – 14,2	20 - 30 mm	N	EI 90-C/U	EI 120-C/U
	≤ 88,9	1,0 – 14,2	30 - 40 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 88,9	1,0 – 14,2	30 - 40 mm	N	EI 90-C/U	EI 120-C/U
	≤ 114	1,0 – 14,2	40 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 114	1,0 – 14,2	40 mm	N	EI 90-C/U	EI 120-C/U
Non-combustible pipes with/without backfilling and with FEF insulation (LS/CS)						
Copper, steel, stainless steel, cast iron	≤ 28	1,0 – 14,2	≥ 1250 mm x 19 - 25 mm	Y/N	EI 120-C/U	EI 120-C/U
	≤ 42	1,0 – 14,2	≥ 1250 mm x 25 mm	Y/N	EI 120-C/U	EI 120-C/U
	≤ 42	1,0 – 14,2	≥ 1250 mm x 19 - 38 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 54	1,0 – 14,2	≥ 1250 mm x 38 mm	N	EI 60-C/U	EI 120-C/U
	≤ 54	1,0 – 14,2	≥ 1250 mm x 38 mm	Y	EI 120-C/U	EI 120-C/U
	≤ 54	1,0 – 14,2	≥ 1250 mm x 19 - 38 mm	Y/N	-	EI 120-C/U

* Floor ≥ 200 mm, ** Zero distance between pipes

Electrical Installations			
Type	Back-filling	Classification	
		Wall	Floor
Cable, cable bundle with stone wool backfilling			
Cable group 1 - Ø ≤ 21 mm	Y	EI 120	EI 120
Cable group 2 - Ø ≤ 50 mm	Y	-	EI 60
Cable E-YCWY 4x95RM Ø ≤ 47 mm	Y	EI 90	-
Cable H07RN-F 4G95 Ø ≤ 61 mm	Y	EI 90	-
Cable group 4 - bundle Ø ≤ 100 mm, cable Ø ≤ 21 mm	Y	EI 120	
Cable group 4 - bundle Ø ≤ 150 mm, cable Ø ≤ 21 mm	Y	-	EI 120
Cable group 4 - bundle Ø ≤ 180 mm, cable Ø ≤ 21 mm	Y	EI 90 EI 120*	-
Electric installation conduits			
EIC single Ø ≤ 32 mm, with/without cables Ø ≤ 21 mm	Y	EI 120-U/U	EI 120-U/U
EIC-bundle Ø ≤ 90 mm, EIC Ø ≤ 32 mm, with/without cables Ø ≤ 21 mm	Y	-	EI 120-U/U
EIC-bundle Ø ≤ 100 mm, EIC Ø ≤ 32 mm, with/without cables Ø ≤ 21 mm	Y	EI 60-U/U	-
Wave guides			
RFS CELLFLEX – LCF - Ø ≤ 50,3 mm	Y	EI 120-U/C	EI 120-U/C
RFS RADIAFLEX - RLK - Ø ≤ 48,2 mm	Y	EI 120-U/C	EI 120-U/C
CommScope HELIAX - AVA - Ø ≤ 51,1 mm	Y	EI 120-U/C	EI 120-U/C

* Solid wall

HVAC split line combinations					
Type	Ø [mm]	Pipe wall thickness [mm]	Back-filling	Classification	
				Wall	Floor
Copper pipes with 9 mm PEF insulation	≤ 2 x ≤ 22	1,0 – 14,2	Y	EI 90	EI 120
PVC-U, PVC-C pipe	≤ 1 x ≤ 25	1,5			
Cable	≤ 2 x ≤ 14				
Copper pipes with 9 mm PEF insulation	≤ 2 x ≤ 18	1,0 – 14,2	Y	EI 120*	-
PVC-U, PVC-C pipe	≤ 1 x ≤ 25	1,5			
Cable	≤ 2 x ≤ 14				
Copper pipes with 14 mm PEF insulation	≤ 2 x ≤ 22	1,0 – 14,2	Y	EI 120-C/U	EI 120-C/U

* Insulation : 2 x 250 mm x 30 mm "Klimarock" (LI/CI)

Combustible pipes				
Type	Pipe-Ø [mm]	Pipe wall thickness [mm]	Back-filling	Classification
				Shaft wall
Non-regulated pipes without backfilling and without acoustic insulation				
Poloplast POLO-KAL NG	50	2,0	N	EI 90-U/U
Poloplast POLO-KAL XS	50	2,0	N	EI 90-U/U
Geberit Silent PP	50	2,0	N	EI 90-U/U
Non-regulated pipes without backfilling and with 19 mm FEF insulation				
Poloplast POLO-KAL NG	50	2,0	N	EI 90-U/U
Poloplast POLO-KAL XS	50	2,0	N	EI 90-U/U
Geberit Silent PP	50	2,0	N	EI 90-U/U
Multilayer pipes without backfilling and with/without 9 mm PE acoustic insulation				
Geberit Mepla	25	3,0	N	EI 90-U/C
	32	3,0	N	EI 90-U/C
REHAU Rautitan stabil	25	3,7	N	EI 90-U/C
	32	4,7	N	EI 90-U/C
KeKelit KELOX KM 110	20	2,5	N	EI 90-U/C*
	25	2,5	N	EI 90-U/C*
	32	3,0	N	EI 90-U/C*
Multilayer pipes without backfilling and with 19 mm FEF insulation				
Geberit Mepla	25	3,0	N	EI 90-U/C
	32	3,0	N	EI 90-U/C
REHAU Rautitan stabil	25	3,7	N	EI 90-U/C
	32	4,7	N	EI 90-U/C
KeKelit KELOX KM 110	25	2,5	N	EI 90-U/C
	32	3,0	N	EI 90-U/C

* Zero distance between pipes

Blank Seal				
Type	Ø [mm]	Back-filling	Classification	
			Wall	Floor
Blank seal	150	Y	-	EI 120

Annex C

Description of possible additional components of the penetration seal

Description	Performance	Sample Product
Insulation made of flexible elastomeric foam (FEF) in accordance with EN 14304	Reaction to fire class acc. to EN 13501-1: B-s3, d0 resp. D-s1, do	Armalok 50 Armalok 100 ArmaFlex SE ArmaFlex XG AF/ArmaFlex AF/ArmaFlex Evo SH/ArmaFlex NH/ArmaFlex NH/ArmaFlex Smart HT/ArmaFlex ArmaFlex Ultima Kaiflex HT s2 Kaiflex KK Kaiflex KKplus s2 Kaiflex KKplus s3 FLEXEN Heizungskautschuk s2 FLEXEN Kältekautschuk Plus s2 isopren Plus isopren Polar Plus K-FLEX ST K-FLEX ST PLUS K-FLEX ECO K-FLEX H Eurobatex Eurobatex SC Eurobatex High Technology Eurobatex H Eurobatex H Super Eurobatex Glastec
Mineral fibre lamella mat in accordance with EN 14303	Reaction to fire class acc. To EN 13501-1 : A2-s1, d0 or A1 Bulk density: ≥ 35 kg/m³ Melting point: ≥ 1000° C	Rockwool lamella mat “KLIMAROCK”; PAROC Hvac Lamella Mat AluCoat
Loose mineral wool in accordance with EN 14303	Reaction to fire class acc. to EN 13501-1: A1 Melting point: ≥ 1000 °C	Knauf Insulation LW; Rockwool "ProRox LF 970"
Pipe shell of concentrically wrapped rockwool in accordance with EN 14303	Reaction to fire class acc. to EN 13501-1: A2-s1, d0 or A1 Bulk density: ≥ 80 kg/m³ Melting point: ≥ 1000 °C	Isover U Protect Pipe Section Alu 2 ; Rockwool ProRox PS 960 Rockwool 800 Rockwool ProRox WM 950 Rockwool ProRox WM 960 Rockwool Conlit 150 U ISODAEM STEINWOLL-ROHRSCHALE Alu ISODAEM STEINWOLL-ROHRSCHALE Alu-T

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