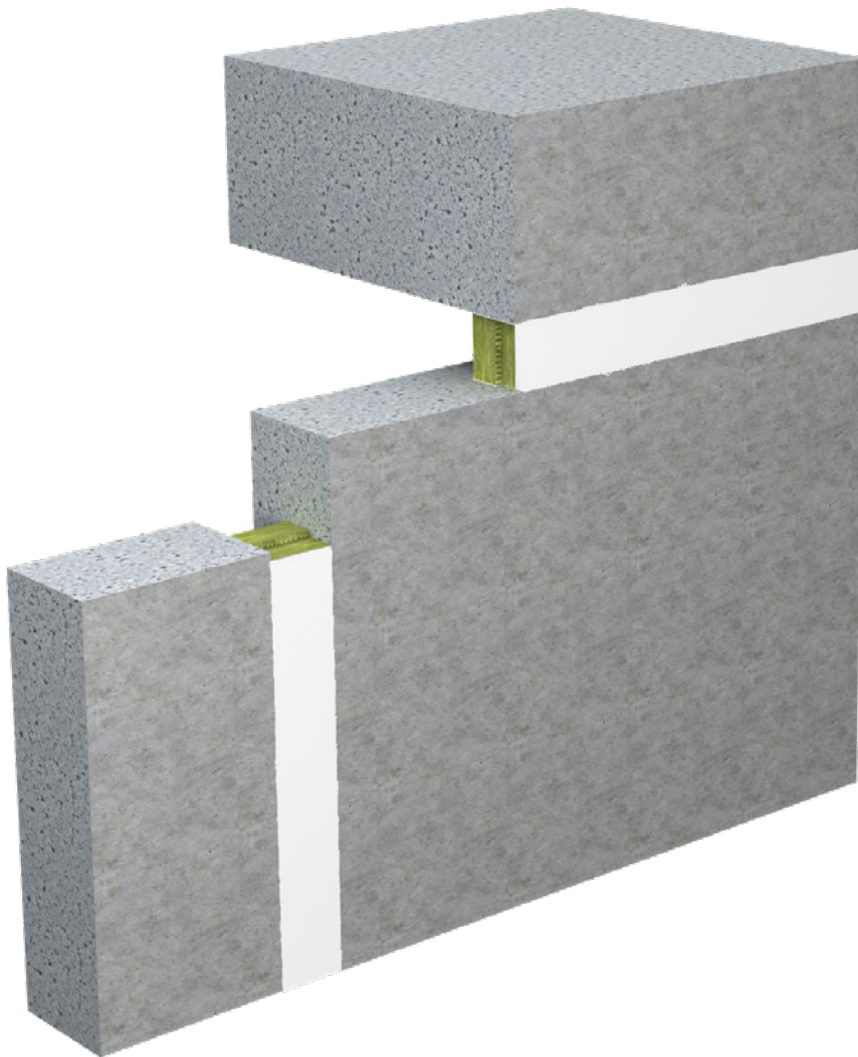


System Flammotect Joint Seal

Linear joint sealing and fire barrier made of e.g. mineral fibre boards and an ablative coating for horizontal and vertical joints between solid walls and floors.

Maximum fire resistance class: EI 120 as per EN 13501-2 in accordance with ETA-18/0237.



System Flammotect Joint Seal

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System Flammotect Joint Seal





1. Preliminary remarks / Overview

1.1 Use of the instructions



The installation instructions are intended solely for personnel trained in fire protection. Before starting work, read through these installation instructions completely. Pay particular attention to the following safety instructions. The authorisation holder assumes no liability for damage caused by failure to comply with these instructions. Pictorial representations serve as examples only. Installation results may differ in appearance. Upon request, flamro will be pleased to provide the relevant legal and technical framework and manufacturer specifications for each individual case.

1.2 Safety instructions

Consult the respective safety information for the individual penetration seal components.
Personal protective equipment:

	Wear protective clothing and non-slip shoes.
	Use safety goggles or safety glasses.
	Use a respirator with P2 particle filter in case of short-term or low level exposure. For intensive or prolonged exposure use a breathing apparatus with independent air supply. Use breathing protection in compliance with international/national standards.
	Use chemically resistant gloves. Recommended materials: Butyl rubber, nitrile rubber, fluorinated rubber, PVC.

Safety instructions for the installation of floor penetration seals

	The area below the floor penetration seal must be cordoned off against entry during penetration seal work (barrier tape and warning sign: warning of possible falling objects, do not enter the area, penetration seal work in floor component openings).
	The contractor for the production of floor penetration seals must inform the client in writing (for forwarding to the client or appointed representative) that fire protection seals installed in floors must be secured on site against loads – in particular against being walked on – by suitable measures (e.g. by fencing them off or by covering them with grating).

System Flammotect Joint Seal

1.3 Field of application

The usability of the Flammotect joint sealing has been assessed in accordance with EAD 350141-00-1106 in terms of the „Reaction to fire“, „Resistance to fire“, „Release of dangerous substances“ and „Durability and serviceability“ product characteristics.

Reaction to fire

The ablative material FLAMMOTECT-A meets class E for reaction to fire in accordance with EN 13501-1; the mineral fibre board ProRox SL 970D, the loose mineral wool ProRox LF 970 and the lamella mat Klimarock meet class A1 in accordance with DIN EN 13501-1.

Resistance to fire

The Flammotect joint sealing maximally meets the following fire resistance classes in accordance with EN 13501-2.

- EI 120:
- Joint sealing with mineral fibre boards (double layer) in walls and floors
 - Joint sealing with lamella mat in walls and floors
 - Joint sealing with loose mineral wool in floors
 - Joint sealing with fire protection filler in walls and floors

- EI 60 / E 120: - Joint sealing with mineral fibre boards (single layer) in floors

Release of dangerous substances

The ablative material FLAMMOTECT-A does not contain any substances identified as dangerous in the list of the European Commission.

The mineral fibre board ProRox SL 970D, the loose mineral wool ProRox LF 970 and the lamella mat Klimarock do not contain any dangerous substances listed in Directive 67/548/EC or Regulation (EC) No. 1272/2008 or the Indicative List on Dangerous Substances.

Durability and serviceability

The ablative material FLAMMOTECT-A meets the requirements of type X in accordance with EOTA TR 024. FLAMMOTECT-A can be subjected to the conditions of interior rooms with and without exposure to moisture or atmospheric conditions, without substantial changes to the fire protection characteristics to be expected.

1.4 Building elements

Solid walls

made of concrete, reinforced concrete or aerated concrete with a minimum fire resistance class as necessary in accordance with EN 13501-2.

Solid floors

made of masonry, concrete, reinforced concrete or aerated concrete with a minimum fire resistance class as necessary in accordance with EN 13501-2.

System Flammotect Joint Seal

2. Included products



**FLAMMOTECT- A
Coating**
12.5 kg pail – Art. no. 01155131



**FLAMMOTECT- A
Solid emulsion**
5 kg pail – Art. no. 01155121
12,5 kg pail – Art. no. 01155136



**FLAMMOTECT- A
Filler**
5 kg pail – Art. no. 01155135
12.5 kg pail – Art. no. 01155134
310 ml cartridge – Art. no. 01155115
600 ml flow pack – Art. no. 01155153



Lamella mat Klimarock
in accordance with DIN EN 14303 and DoP DE0628071802 dated 13.07.2018
Reaction to fire class in acc. with EN 13501-1: Class A1
Dimensions 610 × 50 cm
Thickness 30 mm
Roll, 3.05 m² – product no. 01187100
It is allowed to apply any lamella mats / mineral fibre mats / mineral fibre pipe shells as long as they match the following requirements:
EN 14303
Density ≥ 40 kg/m³
Reaction to fire class A1 acc. to EN 13501-1
Thickness ≥ 30 mm



**Mineral wool
ProRox LF 970**
or equivalent with the following characteristics:
Reaction to fire class in acc. with EN 13501-1: A1
Melting point ≥ 1000 °C
10 kg bag – Art. no. 01183000



**Mineral fibre board in acc. with EN 14303
ProRox SL 970^D**
Class of reaction to fire as per EN 13501-1: A1
Dimensions 1000 × 625 × 50 mm



Recommended tools
Spatula, brush, masking tape, mineral wool knife and saw
if required: plastic film, folding ladder, lock wire pliers, steel wire (galvanised)

2.1 Declarations of Performance

The Declarations of Performance for featured Flamro products are available for download on our website:
<https://flamro.com/eu/downloads/>

System Flammotect Joint Seal

3. Regulations and variants

Before installation it is necessary to ensure that type, thickness and fire resistance class of the separating structural elements and the joint widths comply with ETA-18/0237.

All foreign materials, such as loose parts of the structural elements, residues of expanding foam, dirt and other loose materials, must be completely removed from the joints.

The application is possible for linear joint or gap sealings with a movement capability of less than 7.5%.

Variants						
Application with	Thickness of structural element [mm]		Max. joint width [mm]	Min. joint depth [mm]	Fire resistance class	
	Wall	Floor			Wall	Floor
Mineral fibre boards (double layer) EI 120 - H - X - B - W 00 - W 200 EI 120 - V - X - B - W 00 - W 200 EI 120 - T - X - B - W 00 - W 200	≥ 150		≤ 200	100	EI 120	EI 120
Mineral fibre boards (single layer) EI 60 - H - X - B - W 00 - W 200	–	≥ 150	≤ 200	50	–	EI 60 / E 120
Lamella mat EI 120 - H - X - B - W 00 - W 100 EI 120 - T - X - B - W 00 - W 100	≥ 100	≥ 150	≤ 100	≥ 90	EI 120	EI 120
Loose mineral wool EI 120 - V - X - B - W 10 - W 30 (wall) EI 120 - T - X - B - W 10 - W 30 (wall) EI 120 - H - X - B - W 00 - W 20 (floor)	≥ 100	≥ 150	≤ 30 (wall) ≤ 20 (floor)	≥ 75	EI 120	EI 120
Fire protection filler EI 120 - H - X - B - W 00 - W 04 EI 120 - V - X - B - W 00 - W 04 EI 120 - T - X - B - W 00 - W 04	≥ 100	≥ 150	≤ 4	≥ 8	EI 120	EI 120

System Flammotect Joint Seal

3.1 Application with mineral fibre boards – double layer: EI 120

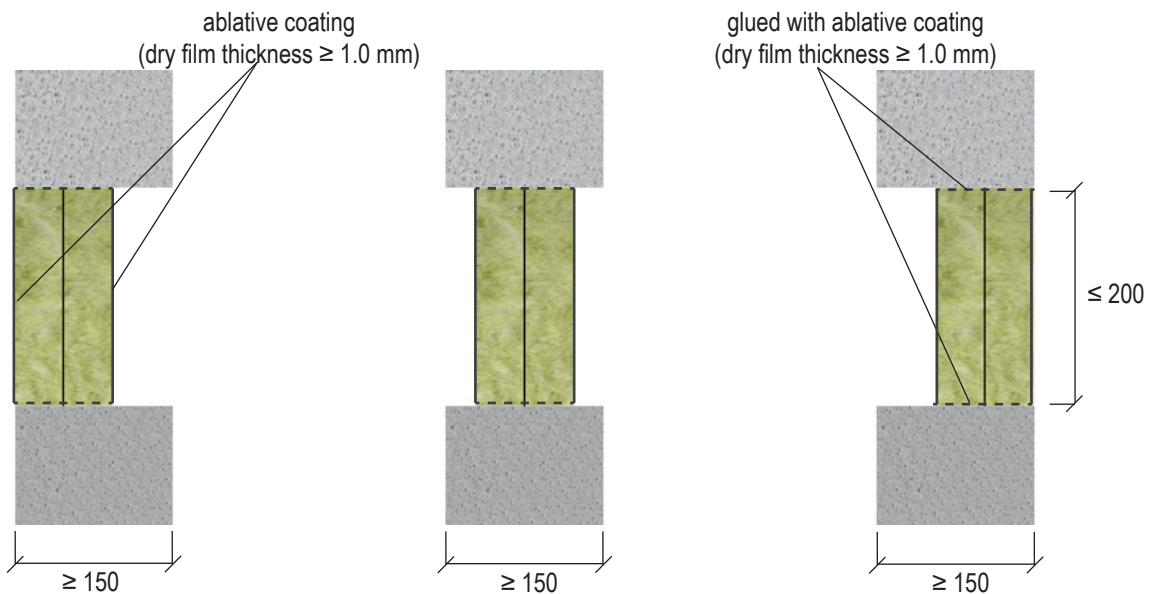
The maximum joint width is ≤ 200 mm.

As shown below, the mineral fibre boards (2× thickness ≥ 50 mm) can be installed in the middle or flush with upper/left or lower/right seal edge.

Joints can be placed horizontally and vertically between walls, floors or between walls and floors.

The mineral fibre boards are glued into the building element using FLAMMOTECT-A. Any remaining gaps are filled with loose mineral wool. The outer edges of the mineral fibre boards are coated with FLAMMOTECT-A (dry film thickness ≥ 1 mm).

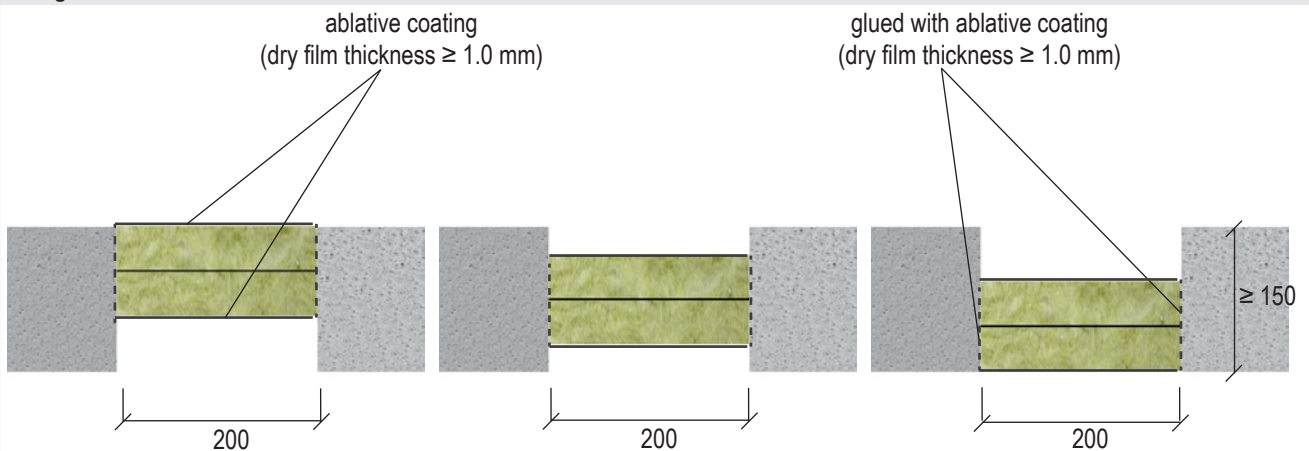
Design variants in walls



For component and seal thickness and design variants, see page 6.

All specifications in mm

Design variants in floors



For component and seal thickness and design variants, see page 6.

All specifications in mm

Consumption (at a joint width of 200 mm)

Mineral fibre boards	FLAMMOTECT-A
approx. 0.4 m ² per metre	approx. 1.0 kg per metre

System Flammotect Joint Seal

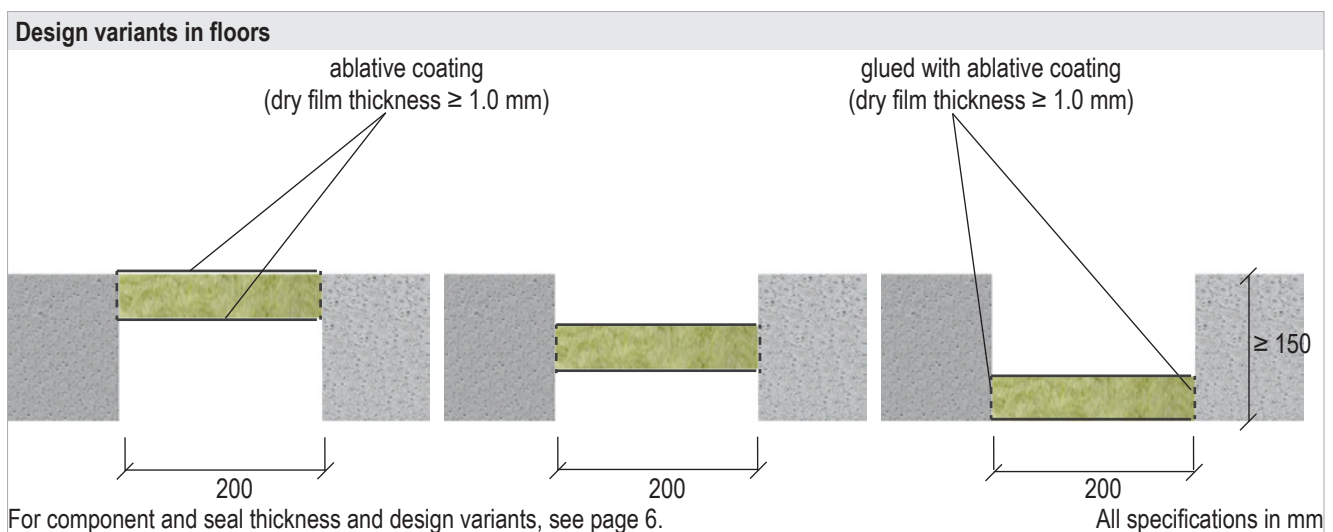
3.2 Application with mineral fibre boards – single layer: EI 60 / E 120

The maximum joint width is ≤ 200 mm.

As shown below, the mineral fibre boards (thickness ≥ 50 mm) can be installed in the middle or flush with upper or lower seal edge. Installation is only allowed in floor joints.

The mineral fibre boards are glued into the structural element using FLAMMOTECT-A. Any remaining gaps are filled with loose mineral wool.

The outer edges of the mineral fibre boards are coated with FLAMMOTECT-A (dry film thickness ≥ 1 mm).



Consumption (at a joint width of 200 mm)	
Mineral fibre boards	FLAMMOTECT-A
approx. 0.2 m ² per metre	approx. 0.9 kg per metre

System Flammotect Joint Seal

3.3 Application with lamella mat

The maximum joint width is ≤ 100 mm, the sealing depth is at least 90 mm.

The lamella mat's thickness must correspond to the joint width (if joint width = 100 mm, then lamella mat's thickness = 100 mm).

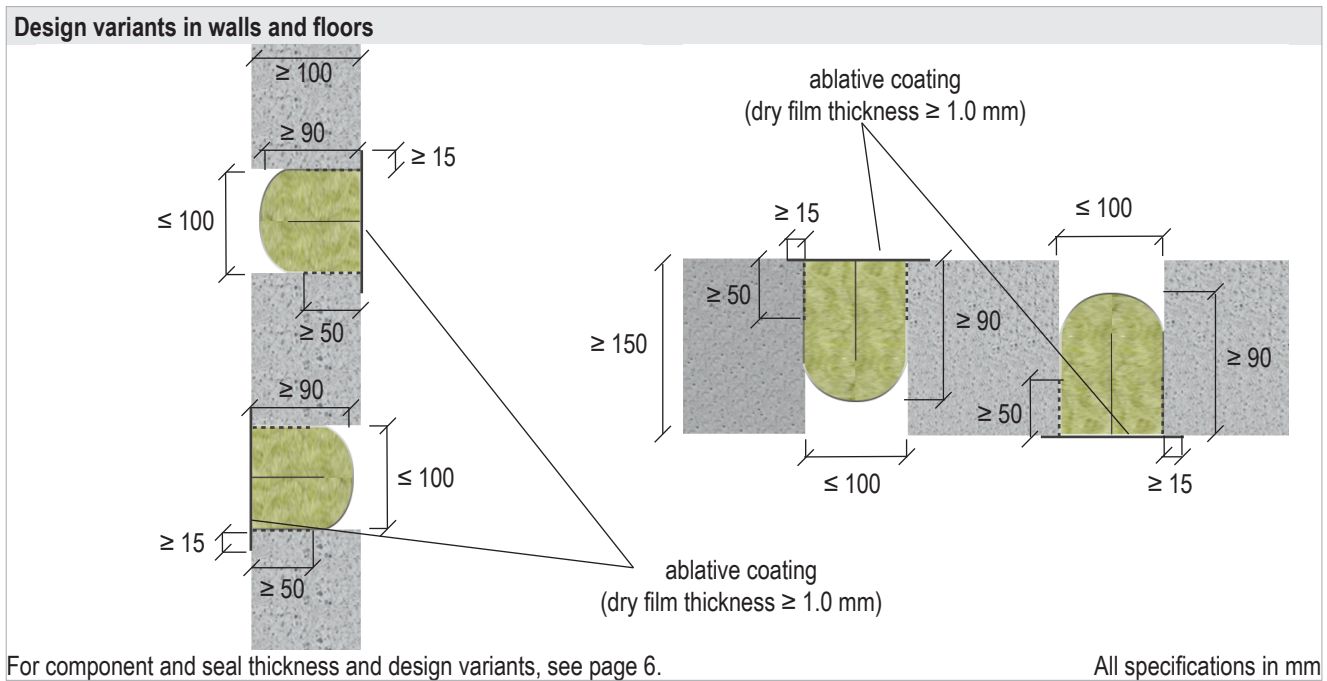
Joints can be placed horizontally and vertically between walls, floors or between walls and floors.

The lamella mat is folded to a "U" shape (with the aluminium facing outside) and coated with FLAMMOTECT-A to a depth of ≥ 50 mm. The coating serves as an adhesive and the lamella mat can be glued into the structural element.

The joint between two lamella mats is also coated to a depth of ≥ 50 mm with FLAMMOTECT-A.

The open side of the lamella mat and ≥ 15 mm all around are coated with FLAMMOTECT-A (dry film thickness ≥ 1 mm).

The lamella mat may be installed in a flush or in an immersed manner. In case of immersed installation it is necessary to coat the inner surfaces of the structural element as well (dry film thickness ≥ 1 mm).



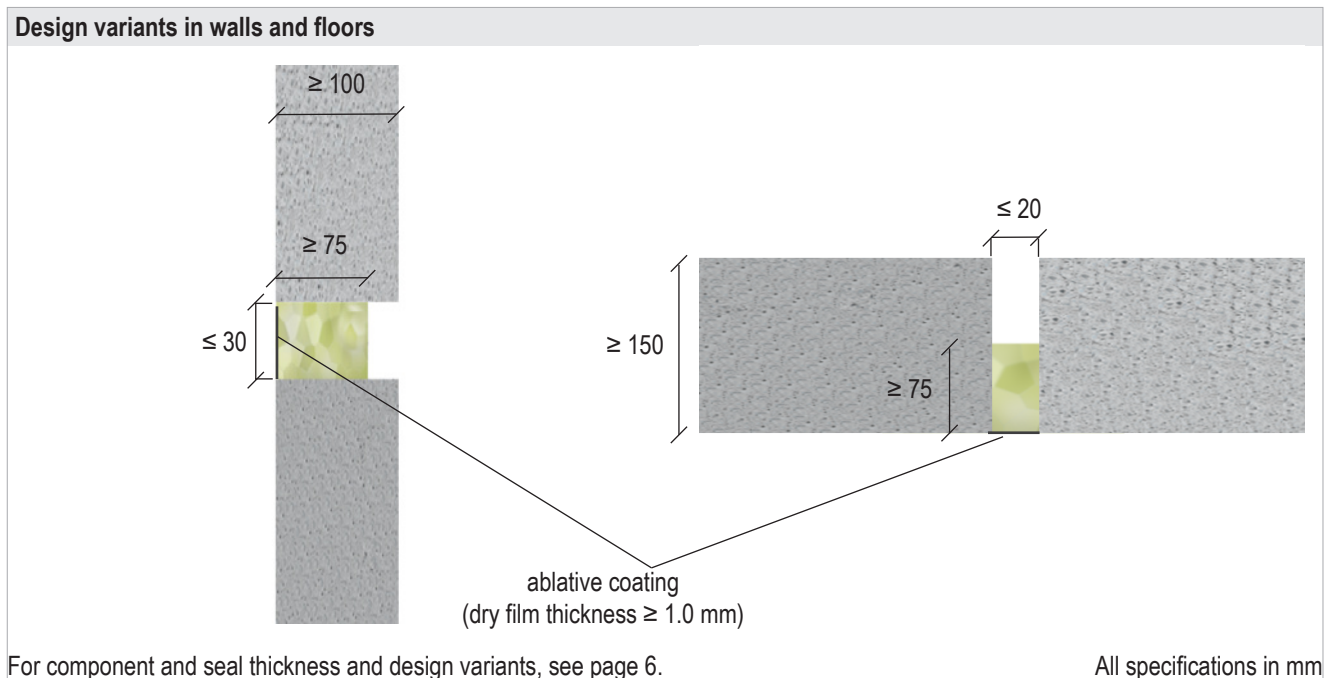
Consumption (at a joint width of 100 mm)	
Lamella mat	FLAMMOTECT-A
approx. 0.3 m ² per metre	approx. 0.5 kg per metre

System Flammotect Joint Seal

3.4 Application with loose mineral wool

The maximum joint width is ≤ 30 mm and ≤ 20 mm in floors. The sealing depth is at least 75 mm.

The surface is coated with FLAMMOTECT-A (dry film thickness ≥ 1 mm).



Consumption (at a joint width of 20 mm)	
Mineral wool	
	approx. 200 g per metre

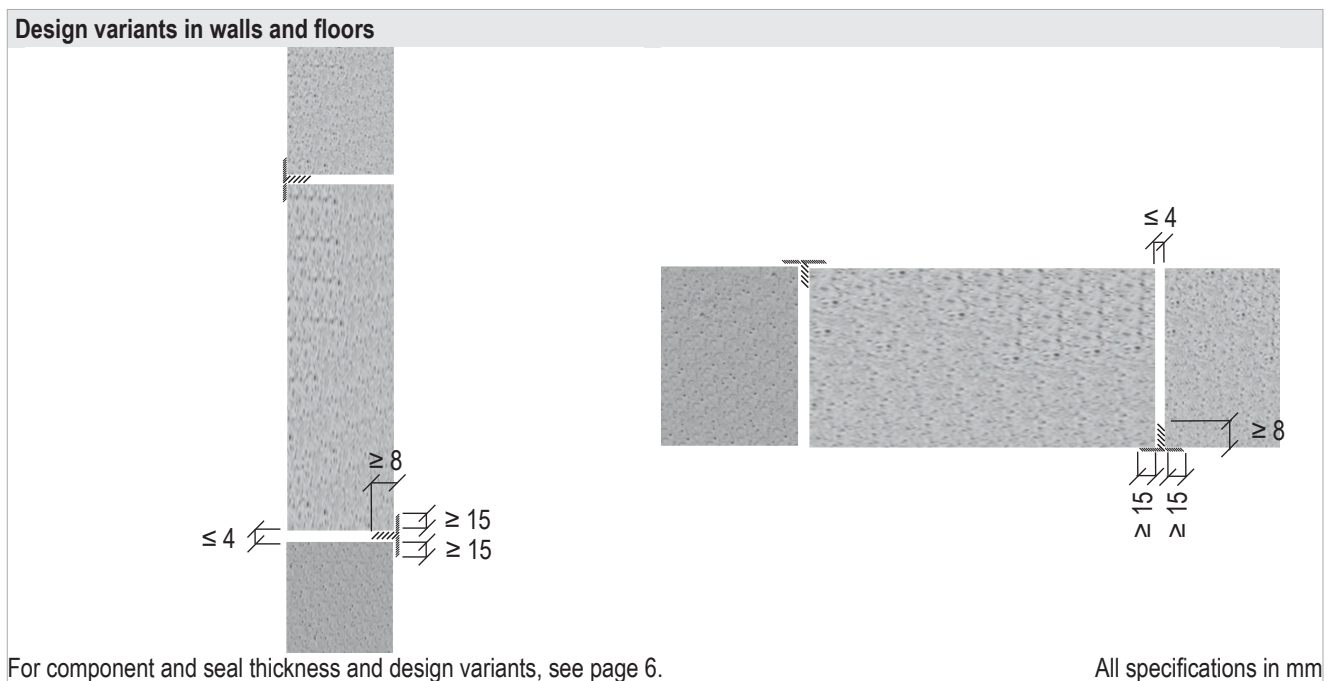
System Flammotect Joint Seal

3.5 Application with fire protection filler

The maximum joint width is ≤ 4 mm.

Joints can be placed horizontally and vertically between walls, floors or between walls and floors.

The joint is sealed to a depth of ≥ 8 mm and all around ≥ 15 mm with FLAMMOTECT-A filler.



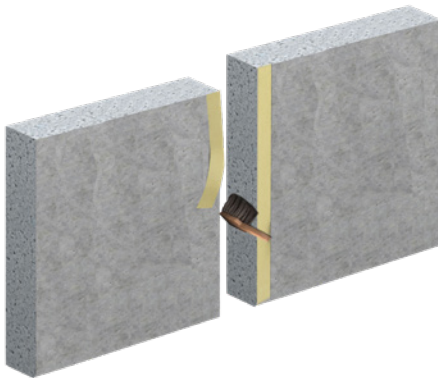
Consumption (at a joint width of 4 mm)
FLAMMOTECT-A
approx. 75 ml per metre – this amounts to approx. 4 metres per FLAMMOTECT-A cartridge

System Flammotect Joint Seal

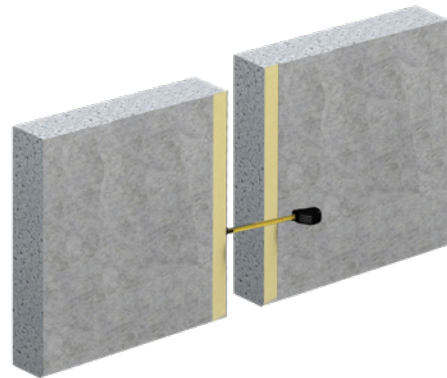
4. Installation steps

4.1 Installation with mineral fibre boards

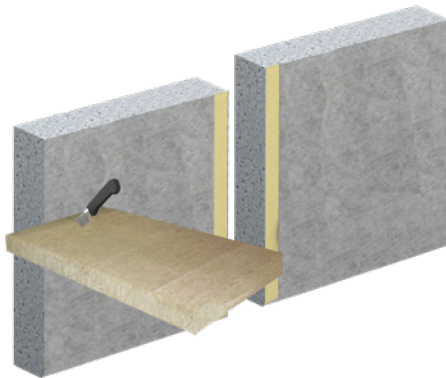
1. Clean the joints and cover the surrounding surface with masking tape.



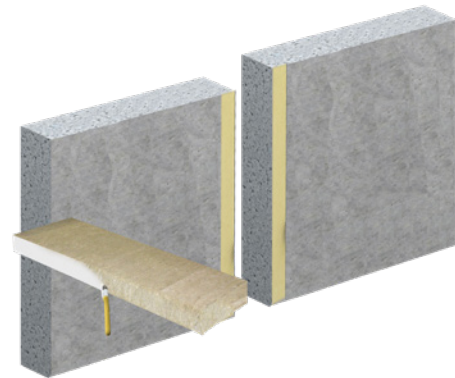
2. Measure the joints.



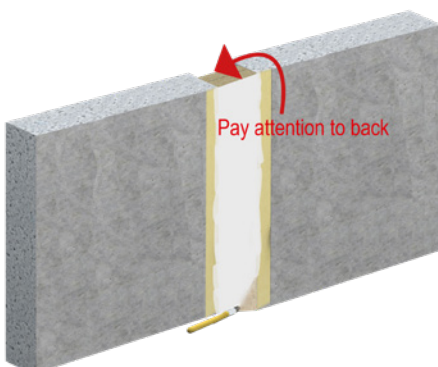
3. Cut mineral fibre boards to size corresponding to the joint dimensions.



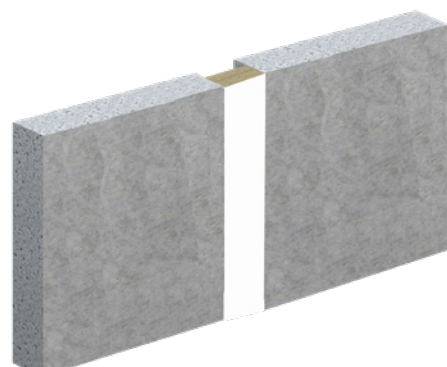
4. Coat the edges of the mineral fibre boards with FLAMMOTECT-A and insert them in one or two layers (single layer application only allowed in floors) into the structural element. Depending on accessibility, the back of the mineral fibre board may also be coated before insertion.



5. Coat front and back of the mineral fibre boards with FLAMMOTECT-A (dry film thickness ≥ 1.0 mm).



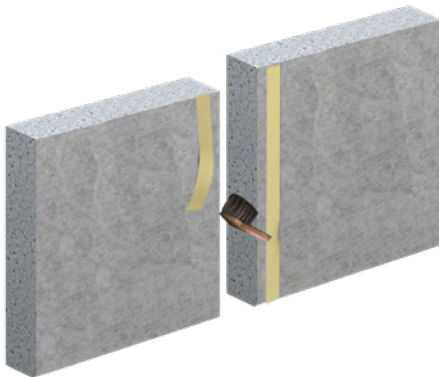
6. Remove the masking tape and – if necessary – label the seal.



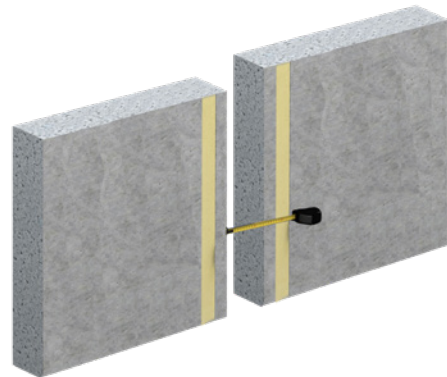
System Flammotect Joint Seal

4.2 Installation with lamella mat

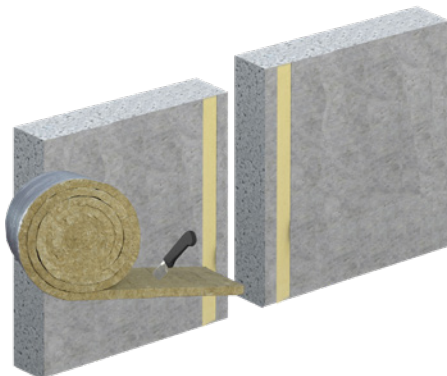
1. Clean the joints and cover the surfaces of the structural elements at a distance of ≥ 15 mm to both edges of the joints with masking tape.



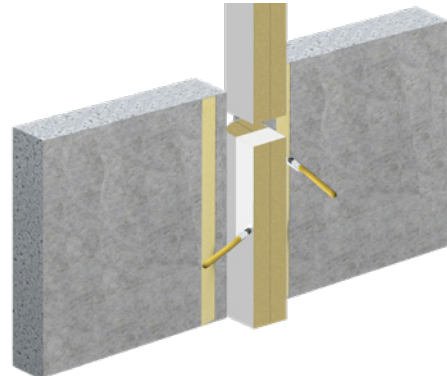
2. Measure the joints.



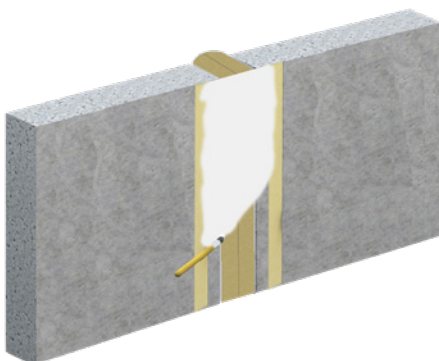
3. Cut lamella mat to size corresponding to the joint dimensions.



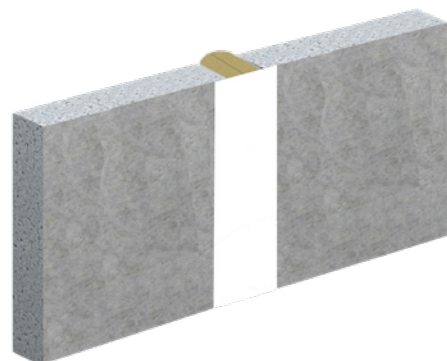
4. Fold lamella mat to a "U" shape. Coat both legs and the joint between two mats with FLAMMOTECT-A (depth ≥ 50 mm) and insert them in a flush manner.



5. Coat the entire lamella mat surface and the wall surface (≥ 15 mm per side) with FLAMMOTECT-A (dry film thickness ≥ 1.0 mm).



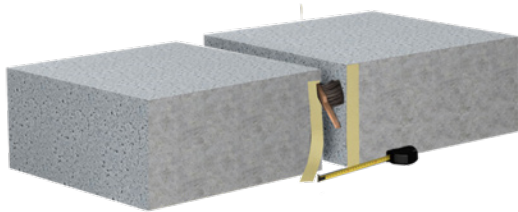
6. Remove the masking tape and – if necessary – label the seal.



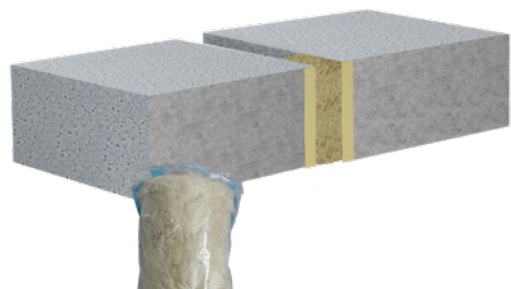
System Flammotect Joint Seal

4.3 Installation with mineral wool

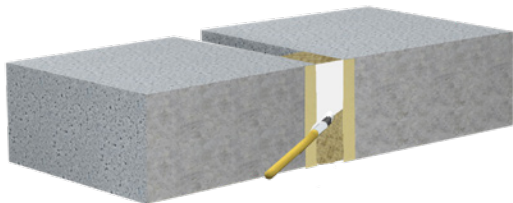
1. Clean the joints, measure them and cover the surrounding surfaces with masking tape.



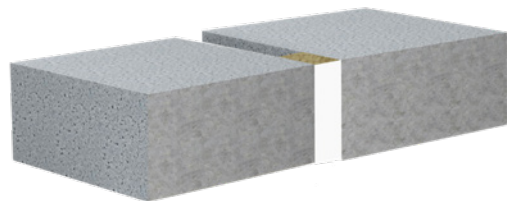
2. Fill the joints with mineral wool.



3. Coat the surface of the mineral wool with FLAMMOTECT-A (dry film thickness ≥ 1.0 mm).



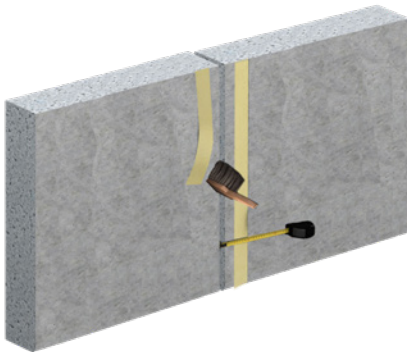
4. Remove the masking tape and – if necessary – label the seal.



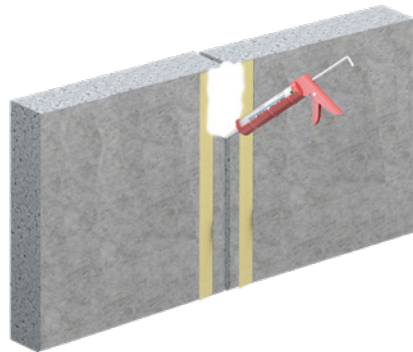
System Flammotect Joint Seal

4.4 Installation with fire protection filler

1. Clean the joints and cover the surfaces of the structural elements at a distance of ≥ 15 mm to both edges of the joints with masking tape.



2. Seal the joints to a depth of ≥ 8 mm and overlapping ≥ 15 mm with FLAMMOTECT-A filler.



3. Remove the masking tape and – if necessary – label the seal.

