System AC Putty

Sealing system for linear joints and gaps

Fire resistance class EI 240 in accordance with EN 13501-2 as per ETA 21/0108

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Installation instructions Rev.: 1.0

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1. Preliminary remarks / overview

1.1 Target group

The installation instructions are intended solely for personnel trained in fire protection.

1.2 Use of the instructions

Before starting work, read through these installation instructions completely once. 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.

Unless stated otherwise, all lengths are specified in mm.

All information in this document represents the state of the art at the time of writing or the current version of the standard.

Upon request, flamro will be pleased to provide the relevant legal and technical framework and manufacturer specifications for each individual case.

1.2.1 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, safety glasses.
	P2 particle filter in case of short-term or low level exposure. 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 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 after the production of the fire penetration seals in floors, these must be secured on site against loads, in particular against being stepped on, by suitable measures (e.g. by fencing or by covering with grating).

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1.3 Building elements

Plasterboard walls

Non-load bearing partition walls with a minimum thickness of 100 mm in stud design with steel supports, which are cladded on both sides with at least two layers of board (minimum thickness 12.5 mm) with classification A2-s1,d0 or A1 in acc. with 13501-1.

The supporting structure must have the required fire resistance rating according to EN 13501-2.

Solid walls

Made of concrete, aerated concrete or masonry with a density of ≥ 650 kg/m^3, thickness ≥ 150 mm.

The walls must be classified for the desired fire resistance duration according to EN 13501-2.

Solid floors

Made of concrete or aerated concrete with a density of ≥ 650 kg/m^3, thickness ≥ 150 mm.

The floors must be classified for the desired fire resistance duration according to EN 13501-2.

1.4 Application

	Plasterboard wall [mm]	Solid wall [mm]	Solid floor [mm]
Thickness of building element	≥ 100	≥ 150	≥ 150
Joint width	≤ 30	≤ 30	≤ 100
Movement capability	≤ 7.5 % of joint width		
Distance to other apertures or installations	≥ 200	≥ 200	≥ 200

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2. Included products

AC Putty
Filler
Cartridge, 310 ml – Art. no. 30005

Label

1 piece – Art. no. 14003

Mineral wool A1

Reaction to fire class in acc. with
EN 13501-1: A1
Melting point ≥ 1000 °C
10 kg bag – Art. no. 01183000

3. Classification of building joints

Testing conditions	Denomination
Fire resistance class	
	max. E 240 / EI 240
Alignment of element	
horizontal support construction	H
vertical support construction – vertical joints	V
vertical support construction – horizontal joints	T
Movement	
no movement	X
forced movement (in %)	M000
Types of connection	
pre-built	M
built locally	F
both pre-built and built locally	B
Area of joint widths (in mm)	
	W00 bis 99

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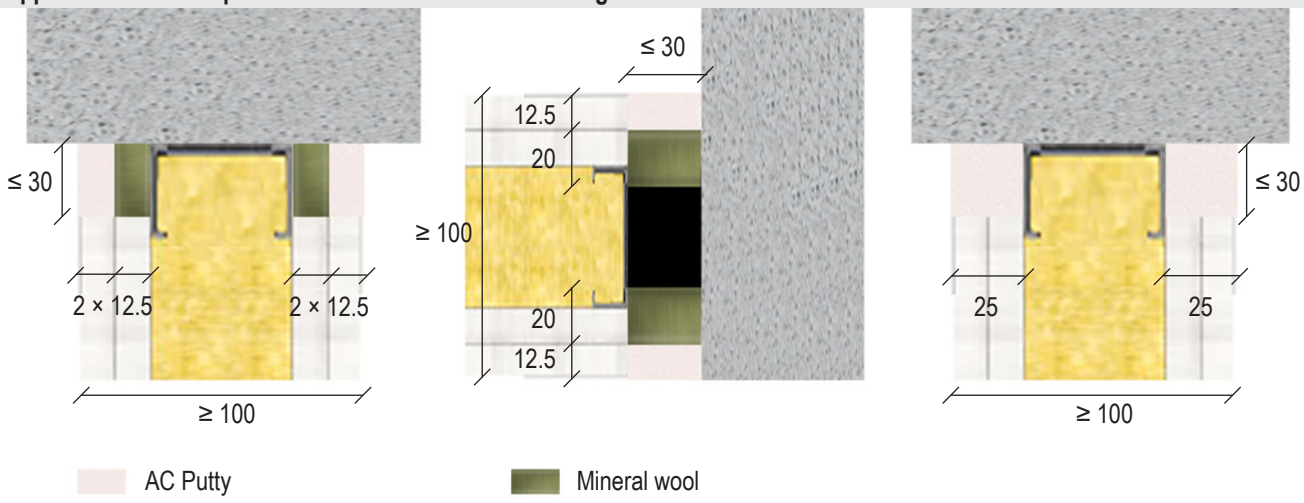
4. Design variants

4.1 Design for plasterboard walls

Application between plasterboard walls and solid building elements



Specifications in mm

Material	Depth AC Putty	Joint filling	Classification
plasterboard concrete	≥ 12.5 mm	≥ 12.5 mm mineral wool with a density of 35 kg/m³ + 50 mm C-rail	**EI 120 – T – X – F – W 00 to 30**
		≥ 20 mm mineral wool with a density of 35 kg/m³*	**EI 120 – V – X – F – W 00 to 30**
	≥ 25.0 mm	50 mm C-rail	**EI 120 – T – X – F – W 00 to 30**

* Maximum wall height: 3 m

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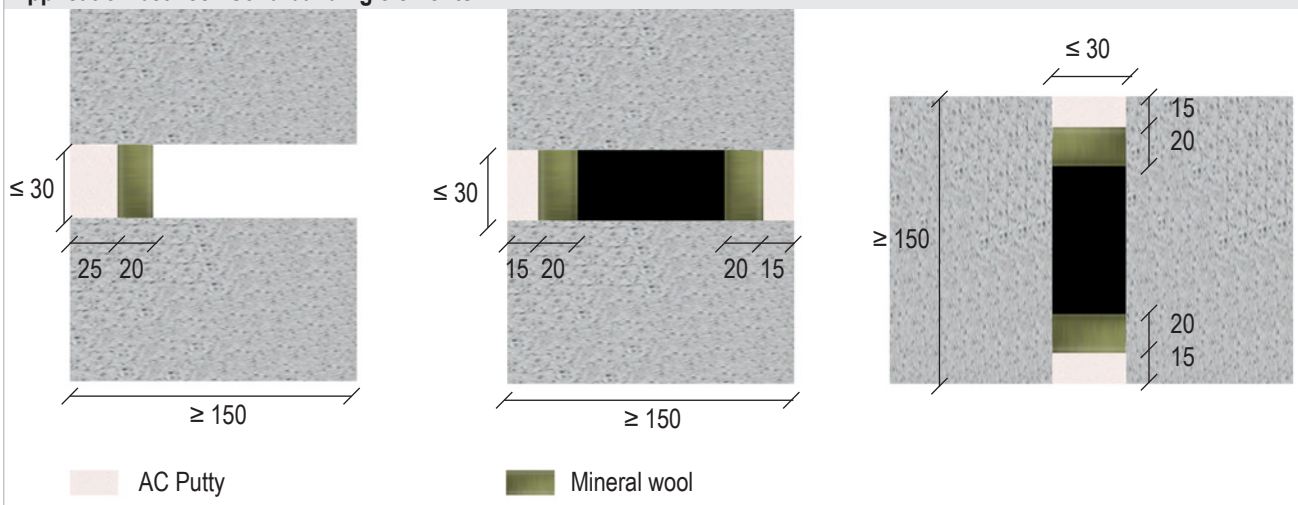
4.2 Design for solid walls

Application between solid building elements



Specifications in mm

Material	Depth AC Putty	Joint filling	Classification
masonry concrete	≥ 25.0 mm (on one side)	≥ 20 mm mineral wool with a density of 40 kg/m³	**E 240 – T – X – F – W 00 to 30** **EI 60 – T – X – F – W 00 to 30**
	≥ 15.0 mm (on both sides)		**EI 240 – V – X – F – W 00 to 30** **EI 240 – T – X – F – W 00 to 30**

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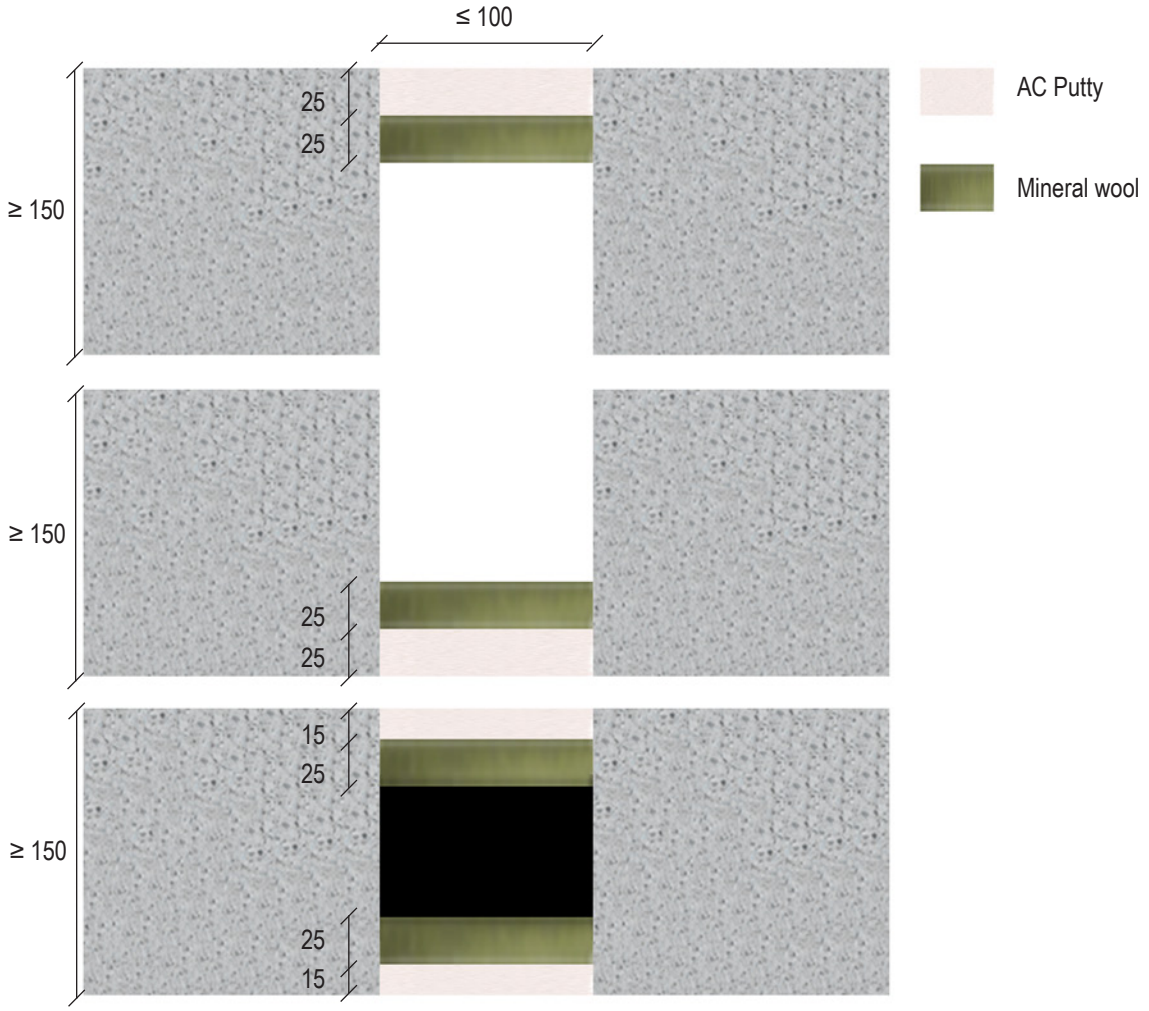
4.3 Design for solid walls

Application between solid building elements



Specifications in mm

Material	Depth AC Putty	Joint filling	Classification
masonry concrete	≥ 25.0 mm (upper side of floor)	≥ 25 mm AES* wool with a density of ≥ 128 kg/m³	**EI 180 – H – X – F – W 00 to 100**
	≥ 25.0 mm (every other position)		**E 120 – H – X – F – W 00 to 100** **EI 60 – H – X – F – W 00 to 100**
	≥ 15.0 mm (on both sides)	≥ 25 mm mineral wool with a density of 40 kg/m³	**EI 120 – H – X – F – W 00 to 100**
		≥ 25 mm mineral wool with a density of 140 kg/m³	**EI 180 – H – X – F – W 00 to 100**

* AES = alkaline earth silicate wool (high temperature mineral wool)

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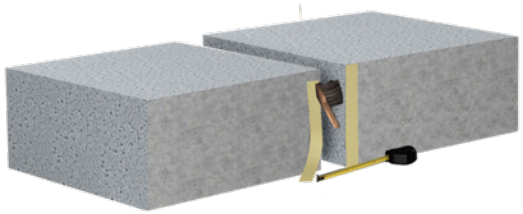
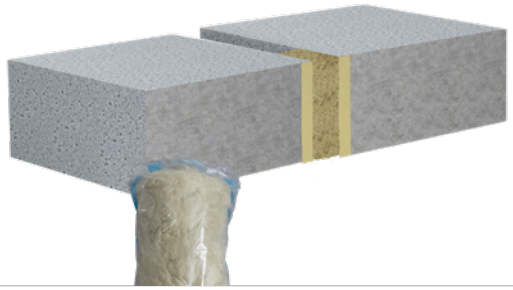
5. Installation steps

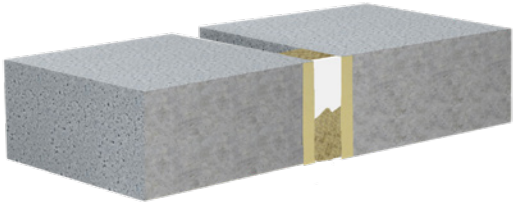
1. Clean the joints, measure them and cover the surrounding surfaces with masking tape.



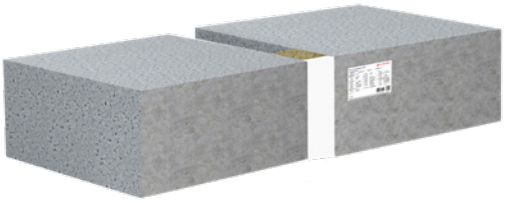
2. Insert the joint filling that is necessary for the specific application (see chapter „Design variants“ starting on page 6).



3. Insert AC Putty with a mastic gun (cover the joints with masking tape if necessary).



4. If required, label the penetration seal. Fill out the label neatly and attach it firmly next to/above (not on) the penetration seal.



Subsequent installation (retrofitting) and dismantling of joint seals is permitted.