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# European Technical Assessment



General part	
Technical Assessment Body issuing the ETA	Austrian Institute of Construction Engineering (OIB)
Trade name of the construction product	PROMASEAL <sup>®</sup> -A
Product family to which the construction product belongs	Fire Stopping and Sealing Product: Linear Joint and Gap Seals
Manufacturer	Promat GmbH StPeter-Strasse 25 4021 Linz Austria
Manufacturing plant	Production Plant 17
This European Technical Assessment contains	17 pages including 3 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	Guideline for European technical approval (ETAG) No. 026-3 Fire Stopping and Fire Sealing Products – Part 3: Linear Joint and Gap Seals, edition August 2011, used as European Assessment Doc- ument (EAD)



# Specific parts

### 1. Technical description of the product

### 1.1 Definition of the construction product

The firestop sealant PROMASEAL<sup>®</sup>-A is a 1-component product, is composed on an acrylic based with filling substances. It is supplied in cartridges (310 ml), foil bags or can be supplied in buckets on customers demand. A detailed specification of the product is a non-public part of this European technical assessment and deposited at Österreichisches Institut für Bautechnik.

# 2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

PROMASEAL®-A is a firestop sealant installed in linear gaps/joints to form a linear joint or gap seal with different backfilling materials.

### 2.1 Intended use

The intended use of PROMASEAL<sup>®</sup>-A is to reinstate the fire resistance performance of flexible wall constructions, rigid wall constructions and rigid floor constructions at linear joints/gaps within those constructions or where they are abutting another wall or floor constructions.

In the following specified constructions PROMASEAL®-A may be used to provide a linear joint seal:

- A) Flexible walls: The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of minimum 12,5 mm thick boards. For timber stud walls there must be a minimum distance of 100 mm of the seal to any stud and the cavity between stud and seal must be closed and minimum 100 mm insulation of class A1 or A2 (in accordance with EN 13501-1) in the cavity between stud and seal. An aperture framing must be installed, made of metal studs or boards that have been used for lining of the wall (1 layer minimum 12,5 mm thickness).
- B) Rigid walls: The wall must have a minimum thickness of 100 mm and consist of concrete, aerated concrete or masonry, with a minimum density of 450 kg/m<sup>3</sup>.
- C) Rigid floors: The floor must have a minimum thickness of 150 mm and consist of aerated concrete or concrete with a minimum density of 450 kg/m<sup>3</sup>.

The supporting construction must be classified in accordance to EN 13501-2 for the required fire resistance period. This ETA does not cover the use of this product as a linear joint/gap seal in sandwich panel constructions. For further details see Annex 3 of the ETA.



# 2.2 Use category

The use category of PROMASEAL<sup>®</sup>-A is Type  $Y_1$ . Since the requirements for  $Y_1$  are met, also the requirements for type  $Z_1$ ,  $Z_2$  and  $Y_2$  are fulfilled.

- Type Y<sub>1</sub>: Products intended for use at temperatures between -20°C and + 70°C, with exposure to UV but no exposure to rain.
- Type  $Y_2$ : Products intended for use at temperatures between -20°C and + 70°C, with no exposure to UV nor rain.
- Type  $Z_1$ : Products intended for use at internal conditions with high humidity, excluding temperatures below 0°C<sup>1</sup>, without exposure to rain or UV.
- Type  $Z_2$ : Products intended for use at internal conditions with humidity classes other than  $Z_1$ , excluding temperatures below 0°C, without exposure to rain or UV.

### 2.3 General assumptions

It is assumed that

- a) damages to the linear joint/gap seal are repaired accordingly,
- b) the installation of the linear joint/gap seal does not effect the stability of the adjacent building element even in case of fire,
- c) the lintel or floor above the linear joint/gap seal is designed structurally and in terms of fire protection such that no additional mechanical load (other than its own weight) is imposed on the linear joint/gap seal,
- d) the aperture lining within a flexible wall is supported by the studs (transoms and mullions) in such a way that the mechanical load imposed to the aperture lining by the linear joint/gap seal does not affect the stability of the aperture lining and the flexible wall,

The assessment does not cover the avoidance of destruction of the joint/gap seal or of the adjacent building element(s) by forces caused by temperature changes in case of fire.

### 2.4 Manufacturing

The European Technical Assessment is issued for the product on the basis of agreed data/information, deposited with the Österreichisches Institut für Bautechnik, 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 the Österreichisches Institut für Bautechnik before the changes are introduced. The Österreichisches Institut für Bautechnik will decide whether or not such changes affect the European Technical Assessment and consequently the validity of the CE marking on the basis of the European Technical Assessment, shall be necessary.

<sup>&</sup>lt;sup>1</sup> These uses apply for internal humidity class 5 in acc. with EN ISO 13788



### 2.5 Installation

The product shall be installed and used as described in this European Technical Assessment. Additional marking of the linear joint/gap seal shall be done in case of national requirements. For further details see the technical documentation of the manufacturer.

The installation of PROMASEAL®-A should be conducted as follows:

- Application temperatures should be between +5°C to +40°C.
- Cleaning the opening, surface to which PROMASEAL<sup>®</sup>-A will be applied should be cleaned of oil, wax, dirt, loose debris, grease and dust.
- For very porous substrates the surface should be prewetted with water. PROMASEAL®-A adhers to the most substrates (plaster, drywall, concrete, wood...) without using a special primer.
- For some openings insert backfilling material and leave a defined gap depth for application of PROMASEAL®-A.
- Apply PROMASEAL<sup>®</sup>-A using a dispenser.
- For smoothing the sealant a spatula or the finger may be used and it is also possible to use a bit of water to support smoothing.
- The used tools may be cleaned with water.

# 3. Performance of the product and references to the methods used for its assessment

Basic requirements for construc- tion works	Essential characteristics	Method of verification	Performance
BWR 1	None	Not relevant	
BWR 2	Reaction to fire	EN 13501-1	See clause 3.2.1
DIIKZ	Resistance to fire	EN 13501-2	See Annex 3
	Air permeability (material property)	No Performance Deter	mined (NPD)
	Water permeability (material property)	No Performance Deter	mined (NPD)
	Content and/or release of dangerous	European Council	Declaration of con-
	substances	Directive	formity by the manu-
BWR 3		67/548/EEC-	facturer
		Dangerous Sub-	
		stances Directive	
		and Regulation (EC)	
		No 1272/2008	
	Mechanical resistance and stability	No Performance Determined (NPD)	
BWR 4	Resistance to impact / movement	No Performance Determined (NPD)	
	Adhesion	No Performance Determined (NPD)	
BWR 5	Airborne sound insulation	No Performance Determined (NPD)	
BWR 6	Thermal properties	No Performance Determined (NPD)	
DVVKO	Water vapour permeability	No Performance Determined (NPD)	
BWR 7	No Performance Determined (NPD)		

### 3.1 Mechanical resistance and stability (BWR 1)

Not relevant.



# 3.2 Safety in case of fire (BWR 2)

### 3.2.1 Reaction to fire

The components of construction product PROMASEAL<sup>®</sup>-A were assessed according to ETAG 026-Part 3 used as EAD clause 2.4.1 and classified according to EN 13501-1.

Component	Class according to EN 13501-1
PROMASEAL®-A	E

### 3.2.2 Resistance to fire

The firestop sealant PROMASEAL®-A has been tested in accordance to EN 1366-4:2010, installed within linear joints/gaps in flexible walls, rigid walls and rigid floors.

As shown in the Annex 3 of this ETA, the test results and the field of application had been classified in accordance with EN 13501-2:2007+A1:2009.

Appropriate wall and floor constructions for linear joint/gap seals see clause 2.1 of this ETA. For suitable backfilling materials see Annex 2.

### 3.3 Hygiene, health and environment (BWR 3)

3.3.1 Air permeability

No Performance Determined.

3.3.2 Water permeability

No Performance Determined.

3.3.3 Release of dangerous substances

According to the manufacturer's declaration "PROMASEAL®-A" does not contain dangerous substances detailed in Council Directive 67/548/EEC and Regulation (EC) no 1272/2008.

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 Product Directive, these requirements need also to be complied with, when and where they apply.

### 3.4 Safety and accessibility in use (BWR 4)

3.4.1 Mechanical resistance and stability

Due to the maximum joint width of 100 mm (see Annex 3 of this ETA) made from PRO-MASEAL<sup>®</sup>-A, impact tests according ETAG 026-3 are not required and therefore no performance has been determined.

3.4.2 Resistance to impact / movement

See part 3.4.1 of the ETA.

3.4.2 Adhesion

See part 3.4.1 of the ETA.

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### 3.5 **Protection against noise (BWR 5)**

3.5.1 Airborne sound insulation No Performance Determined.

### 3.6 Energy economy and heat retention (BWR 6)

- 3.6.1 Thermal properties No Performance Determined.
- 3.6.2 Water vapour permeability

No Performance Determined.

### 3.7 Sustainable use of natural resources (BWR 7)

No Performance Determined.

## 3.8 General aspects relating to fitness for use

PROMASEAL<sup>®</sup>-A has been tested in accordance to EOTA TR 024, Table 4.2.4 for the  $Y_1$  use category specified in EOTA ETAG 026-3 and the results of the test have demonstrated suitability for linear joint seals intended for use at temperatures between -20°C und +70°C with exposure to UV but without exposure to rain.

# 4 Assessment 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<sup>2</sup>, amended by Decision 2001/596/EC<sup>3</sup> of the European Commission, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V of Regulation (EU) No 305/2011) is 1.

# 5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

### 5.1 Tasks of the manufacturer

5.1.1 Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall insure that the product is in conformity with this European Technical Assessment.

The manufacturer may only use initial/raw/constituent materials stated in the Technical documentation<sup>4</sup> of this European Technical Assessment

For the components, which the ETA-holder does not manufacture by himself, he shall make sure that factory production control carried out by the other manufacturers gives the guarantee of the components compliance with the European Technical Assessment.

<sup>&</sup>lt;sup>2</sup> Official Journal of the European Communities no. L 178, 14.7.1999, p. 52

<sup>&</sup>lt;sup>3</sup> Official Journal of the European Communities no. L 209, 2.8.2001, p. 33

<sup>&</sup>lt;sup>4</sup> The technical documentation of this European Technical Assessment has been deposited at the Österreichisches Institut für Bautechnik and, as far as relevant for the tasks of the notified product certification body involved in the assessment and verification of constancy of performance, is handed over to the notified product certification body.



The factory production control and the provisions taken by the ETA-holder for components not produced by himself shall be in accordance with the control plan<sup>5</sup> relating to this European Technical Assessment, which is a confidential part of the Technical documentation of this European Technical Assessment.

The results and details of the extent, nature and frequency of controls be performed within the factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

5.1.2 Other tasks of the manufacturer

The manufacturer shall provide a Technical data sheet and an installation instruction with the following minimum information:

Technical data sheet:

- a) Field of application:
  - 1) Building elements for which the linear joint/gap seal is suitable, type and properties of the building elements like minimum thickness, density, and in case of lightweight constructions the construction requirements
  - 2) Limits in size, minimum thickness etc. of the linear joint/gap seal
  - 3) Environmental conditions covered by this European Technical Assessment
- b) Construction of the linear joint/gap seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.

### Installation instruction:

- a) Steps to be followed
- b) Stipulations on maintenance, repair and replacement

The manufacturer shall, based on a contract, involve a notified product certification body, which is notified for the tasks referred to in clause 4.1 of the ETA in the field of Assessment product. For this purpose, the control plan referred to in clause 5.1 and 5.2 of the ETA shall be handed over by the manufacturer to the notified product certification body involved.

The manufacturer shall make a declaration of performance, stating that the construction product is in conformity with the provisions of this European Technical Assessment.

### 5.1.3 Further testing of samples taken at the factory

Testing of samples taken at the factory by the manufacturer is not required.

# 5.2 Tasks of notified product certification body

The notified product certification body shall retain the essential points of its actions referred to clause 5.2.1 to 5.2.3, state the results obtained and conclusions drawn in written report.

These tasks shall be performed in accordance with the provisions laid down in the control plan of this European Technical Assessment.

# 5.2.1 Determination of the product type

Notified product certification bodies undertaking tasks under Systems 1 shall consider the European Technical Assessment issued for the construction product in question as the assessment of the performance of that product. Notified bodies shall therefore not undertake the tasks re-

<sup>&</sup>lt;sup>5</sup> The control plan has been deposited at Österreichisches Institut für Bautechnik and is handed over only to the notified product certification body involved in the assessment and verification of constancy of performance.



ferred to in point 1.2 (b)(i), in Annex V of Regulation (EU) No 305/2011, unless there are changes in the manufacture or manufacturing plant. In such cases, the necessary initial type testing has to be agreed between the Österreichisches Institut für Bautechnik and notified product certification body involved.

5.2.2 Initial inspection of the manufacturing plant and of factory production control

The notified product certification body shall ascertain that, in accordance with the control plan, the manufacturing plant, in particular personnel and equipment, and the factory production control are suitable to ensure a continuous and orderly manufacturing of the kit according to the specifications given in clause 2 and in the Annexes of the European Technical Assessment.

5.2.3 Continuous surveillance, assessment and evaluation of factory production control

The notified product certification body shall visit the factory at least once a year for surveillance of the manufacturer.

It has to be verified that the system of factory production control and the specified manufacturing process are maintained taking into account the control plan.

Continuous surveillance and assessment of factory production control have to be performed according to the control plan.

The results of continuous surveillance shall be made available on demand by the notified product certification body or the Österreichisches Institut für Bautechnik. In cases where the provisions of the European Technical Assessment and the control plan are no longer fulfilled, the certificate of constancy of performance shall be withdrawn.

> Issued in Vienna on 05.05.2014 by Österreichisches Institut für Bautechnik

> > Rainer Mikulits Managing Director



# **ANNEX 1**

### **Reference documents**

ETAG 026-3 (2011)	Fire stopping and fire sealing products – Part 3: Linear Joint and Gap Seals
EOTA TR 024 (2009)	Characterisation, Aspects of Durability and Factory Production Control for Reac-
	tive Materials, Components and Products
EN 13501-1	Fire classification of construction products and building elements – Part 1: Classi-
	fication using test data from reaction to fire tests
EN 13501-2	Fire classification of construction products and building elements – Part 2:
	Classification using data from fire resistance tests, excluding ventilation
EN 1366-4	Fire resistance tests for service installations - Part 4: Linear joint seals

## **ANNEX 2**

### Description of product(s) and product literature

### **Description of products:**

Product name	Description
PROMASEAL <sup>®</sup> -A	Firestop acrylic sealant

Backfilling materials	Reaction to fire
Non-combustible materials (e.g. mineral wool)	Minimum class A1 (in acc. to EN 13501-1), melt-
	ing point ≥ 1000 °C
Combustible materials (e.g. expanded polystyrene)	Minimum class E (in acc. to EN 13501-1)
For more details and combinations of the backfilling materials see Annex 3 of this ETA	

For more details and combinations of the backfilling materials see Annex 3 of this ETA.

### **Technical product literature:**

- Technical Datasheet for PROMASEAL®-A •
- Installation guideline for Technical Datasheet for PROMASEAL®-A ٠

The control plan is a non-public part of this European technical assessment, and deposited at the Österreichisches Institut für Bautechnik.

### Shortcuts used in drawings:

Shortcut	Description
A	Building element (floor, wall)
В	Firestop product
С	Backfilling material
t <sub>B</sub>	Thickness of firestop product (linear joint/gap seal)
WB	Width of linear joint seal (linear joint/gap seal)
t <sub>A</sub>	Thickness of the building element (floor, wall)



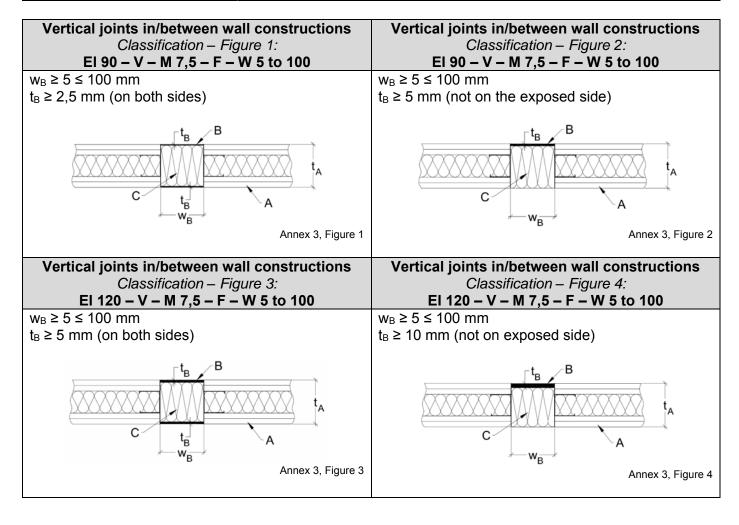
# ANNEX 3

### Resistance to fire classification of linear joint/gap seals made from PROMASEAL®-A

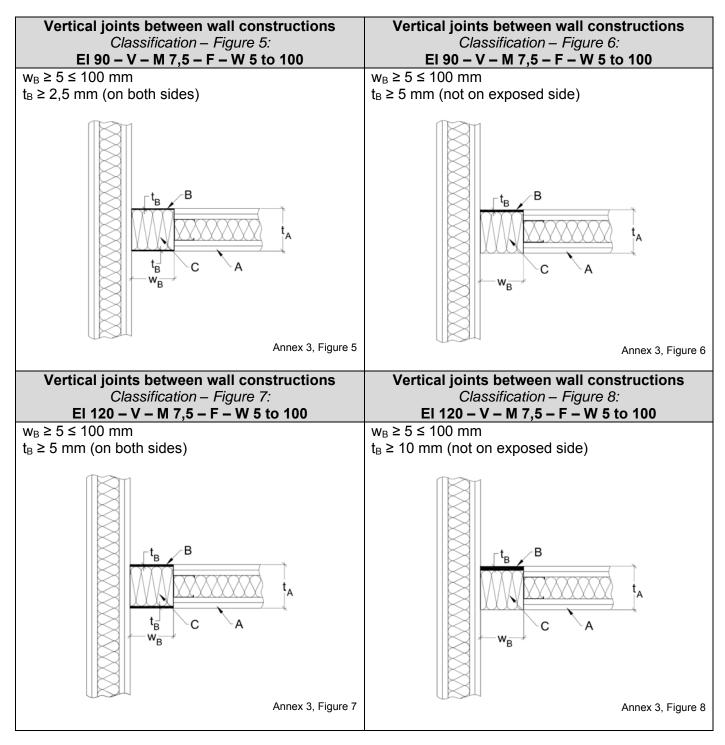
### Classification of linear joint/gap seal in flexible wall

The firestop sealant PROMASEAL®-A has to be applied as shown in the following figures.

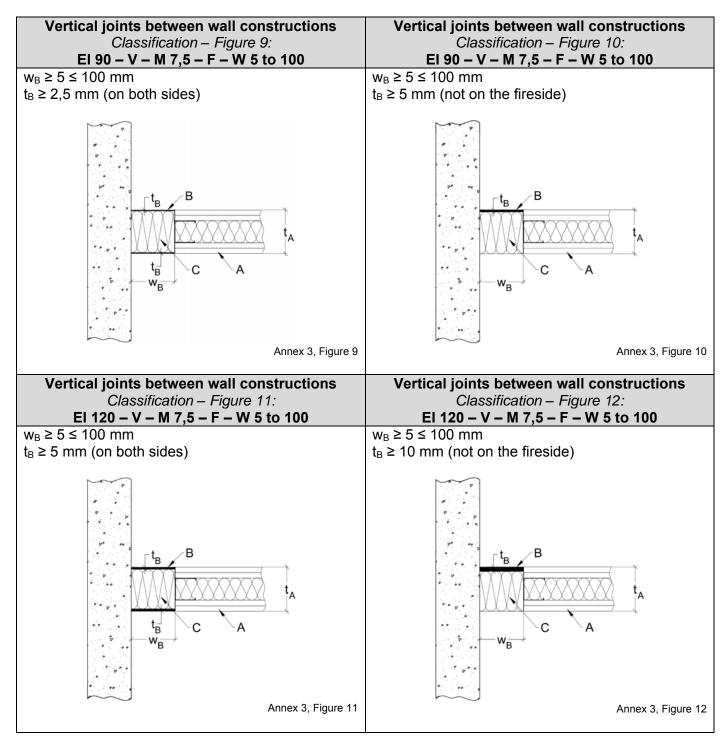
Linear joint/gap seals in/between flexible walls	
Thickness flexible wall, t <sub>A</sub> :	≥ 100 mm
Joint width, w <sub>B</sub> :	≥ 5 ≤ 100 mm, see different Figures
Annular gap depth, t <sub>B</sub> :	≥ 2,5 mm, see different Figures
Backfilling material, C:	Class A1 in acc. to EN 13501-1 (Mineral wool, ceramic wool), melting point ≥ 1000 °C









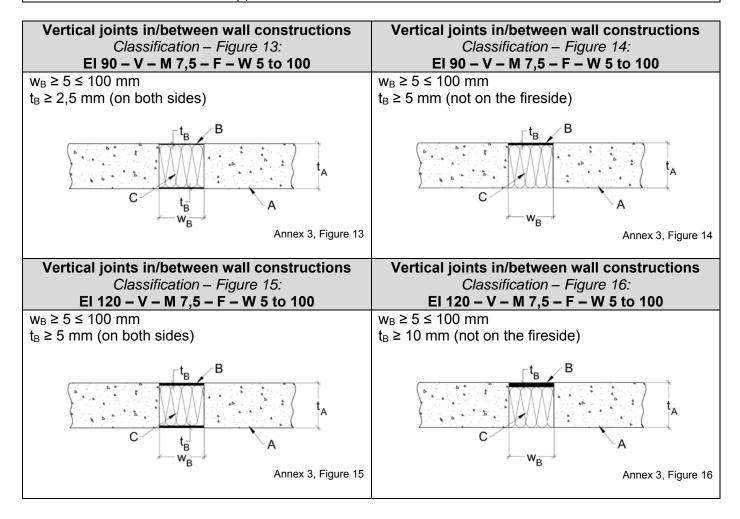




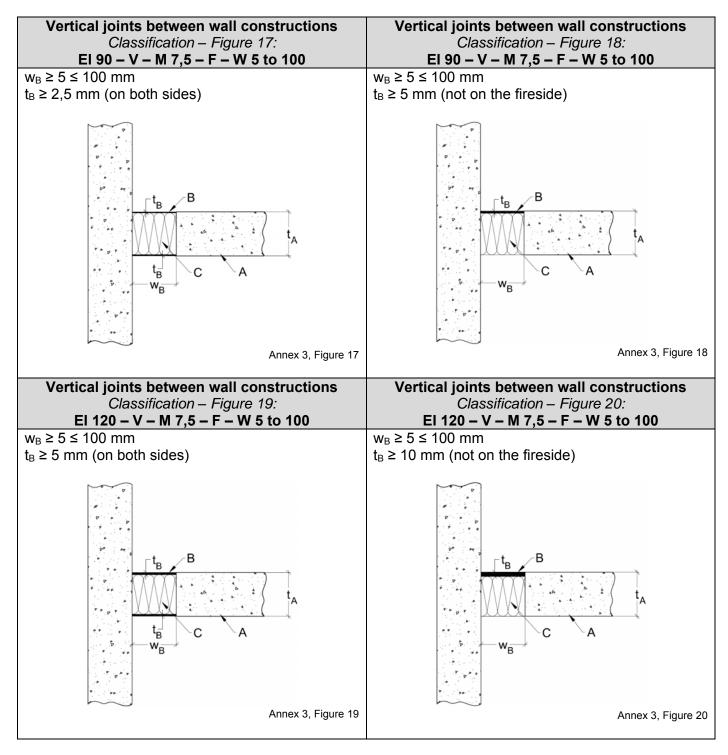
### Classification of linear joint/gap seal in rigid wall

The firestop sealant PROMASEAL®-A has to be applied as shown in the following figures.

Linear joint/gap seals in/between rigid walls	
Thickness rigid wall, t <sub>A</sub> :	≥ 100 mm
Joint width, w <sub>B</sub> :	≥ 5 ≤ 100 mm, see different Figures
Annular gap depth, t <sub>B</sub> :	≥ 2,5 mm, see different Figures
Backfilling material, C:	Class A1 in acc. to EN 13501-1 (Mineral wool, ceramic wool), melting point ≥ 1000 °C





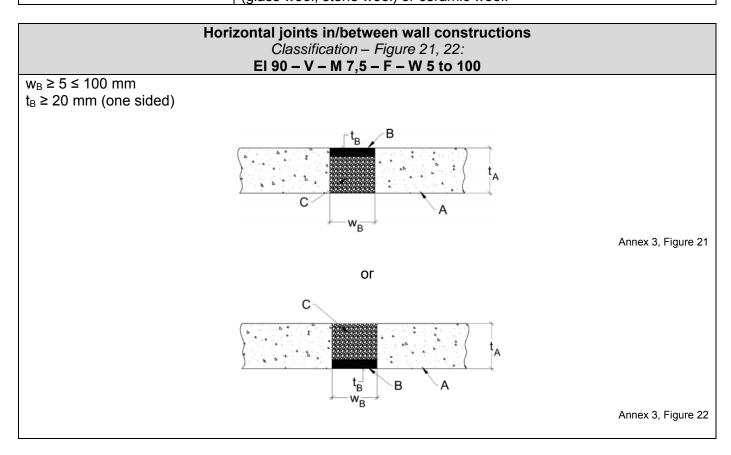




### Classification of linear joint/gap seal in rigid wall

The firestop sealant PROMASEAL®-A has to be applied as shown in the following figure.

Linear joint/gap seals in/between rigid walls	
Thickness rigid wall, t <sub>A</sub> :	≥ 100 mm
Density rigid wall:	≥ 450 kg/m³
Joint width, w <sub>B</sub> :	≥ 5 ≤ 100 mm, see different Figures
Annular gap depth, t <sub>B</sub> :	≥ 20 mm, see different Figures
Backfilling material, C:	Minimum class E in acc. to EN 13501-1 (e.g. EPS), or mineral wool (glass wool, stone wool) or ceramic wool.

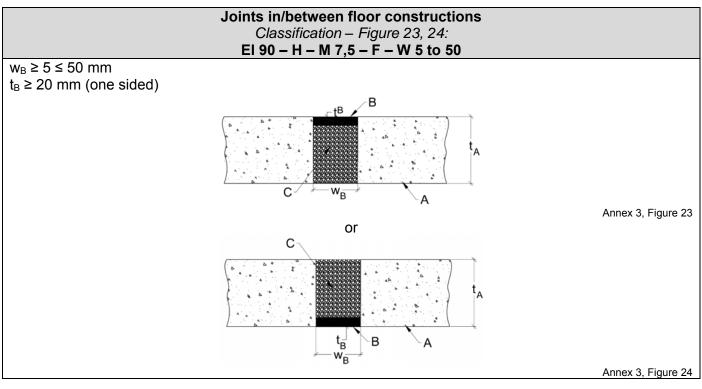


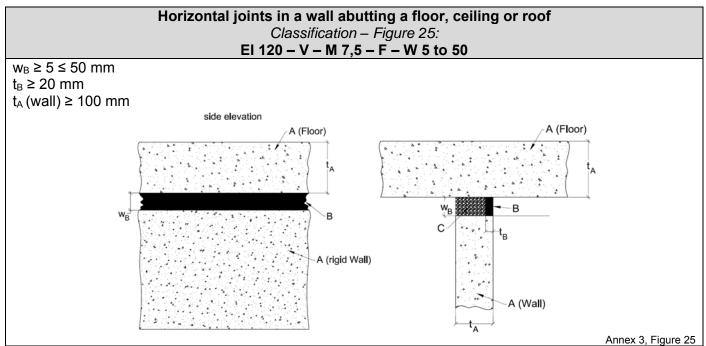


### Classification of linear joint/gap seal in rigid floor

The firestop sealant PROMASEAL®-A has to be applied as shown in the following figure.

Linear joint/gap seals in/between rigid floors	
Thickness rigid floor, t <sub>A</sub> :	≥ 150 mm
Density rigid floor:	≥ 450 kg/m³
Joint width, w <sub>B</sub> :	$\geq$ 5 $\leq$ 50 mm, see different Figures
Annular gap depth, t <sub>B</sub> :	≥ 20 mm, see different Figures
Backfilling material, C:	Minimum class E in acc. to EN 13501-1 (e.g. EPS), or mineral wool (glass wool, stone wool) or ceramic wool.





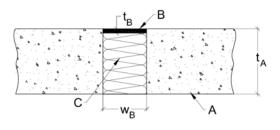


Linear joint/gap seals in/between rigid floors	
Thickness rigid floor, t <sub>A</sub> :	≥ 150 mm
Density rigid floor:	≥ 450 kg/m³
Joint width, w <sub>B</sub> :	$\geq$ 5 $\leq$ 100 mm, see different Figures
Annular gap depth, t <sub>B</sub> :	≥ 10 mm, see different Figures
Backfilling material, C:	Class A1 in acc. to EN 13501-1 (Mineral wool, ceramic wool), melting point ≥ 1000 °C

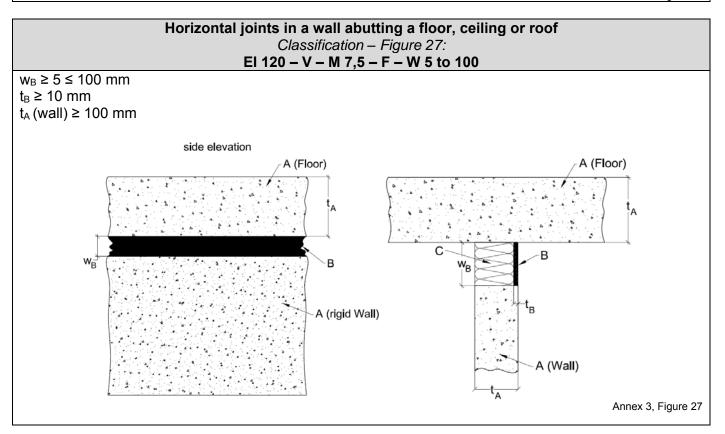
### Joints in/between floor constructions Classification – Figure 26: El 120 – H – M 7,5 – F – W 5 to 100

w<sub>B</sub> ≥ 5 ≤ 100 mm

 $t_B \ge 10 \text{ mm}$  (on the non-exposed side)



Annex 3, Figure 26





k pase



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