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European Technical Assessment ETA-21/1005 of 2021/11/25

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

Knauf FPC Panel

Product family to which the above construction product belongs:

Fire Stopping and Sealing Product:
• Penetration Seals

Manufacturer:

Knauf Sp. z o.o.
Ul. Swiatowa 25
PL-02-229 Warszaw

Manufacturing plant:

A/003

This European Technical Assessment contains:

92 pages including 2 annexes which form an integral part of the document

This European Technical Assessment is issued in accordance with Regulation (EU) No

EAD 350454-00-1104

This version replaces:

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Table of Contents

I.	SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT	4
1	Technical description of the product	4
2	Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350454-00-1104	5
3	Performance of the product and references to the methods used for its assessment	7
4	ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE	8
5	Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD	8
	ANNEX A – Resistance to Fire Classification – Knauf FPC Panel	9
A.1	Rigid wall constructions according to 2. 2)	9
A.1.1	Cable penetration seal with 2x 60 mm thick Knauf FPC Panel 2-S in minimum 150 mm thick walls	9
A.1.2	Cable penetration seal with 1x 60 mm thick Knauf FPC Panel 2-S	10
A.1.3	Pipe penetration seal with 2x 60 mm thick Knauf FPC Panel 2-S	11
A.1.4	Pipe penetration seal with 2x Knauf FPC Panel 2-S	13
A.1.5	Pipe penetration seal with 1x 60 mm thick Knauf FPC Panel 2-S	15
A.1.6	Pipe penetration seal with 1x Knauf FPC Panel 2-S	21
A.1.7	Knauf FPC Panel 60 mm 2-S penetration seal (protruding) blank and with cables, in rigid wall min. 150 mm thick	25
A.1.8	Knauf FPC Panel 60 mm 2-S penetration seal (pattress) blank and with cables, in rigid wall min. 150 mm thick	26
A.1.9	Penetration seal with 2x Knauf FPC Panel 2-S	27
A.2	Rigid floor constructions according to 2. 2) with floor thickness of minimum 150 mm	29
A.2.1	Cable penetration seal with 2x Knauf FPC Panel 2-S	29
A.2.2	Cable penetration seal with 1x Knauf FPC Panel 2-S	30
A.2.3	Pipe penetration seal with 2x Knauf FPC Panel 2-S	31
A.2.4	Pipe penetration seal with 1x Knauf FPC Panel 2-S	33
A.2.5	Pipe penetration seal with 1x Knauf FPC Panel 2-S	36
A.2.6	Pipe penetration seal with 1x Knauf FPC Panel 2-S	37
A.2.7	Pipe penetration seal with 2x Knauf FPC Panel 2-S	38
A.2.8	Pipe penetration seal with 2x Knauf FPC Panel 2-S (back to back)	39
A.3	Timber floor constructions according to 2. 2) with floor thickness of minimum 150 mm	41
A.3.1	Cable penetration seal with 2x Knauf FPC Panel 1-S	41
A.3.2	Pipe penetration seal with 2x Knauf FPC Panel 1-S	42
A.4	Flexible or rigid wall constructions according to 2. 2) with wall thickness of minimum 75 mm	45
A.4.1	Cable penetration seal with 2x Knauf FPC Panel 30 1-S	45
A.4.2	Cable penetration seal with 2x Knauf FPC Panel 1-S	47
A.5	Flexible or rigid wall constructions according to 2. 2) with wall thickness of minimum 100 mm	48
A.5.1	Cable penetration seal with 2x Knauf FPC Panel 1-S	48
A.5.2	Pipe penetration seal with 2x Knauf FPC Panel 1-S	49
A.5.3	Pipe penetration seal with 2x Knauf FPC Panel 1-S	54
A.5.4	Pipe penetration seal with 2x Knauf FPC Panel 1-S	56
A.5.5	Pipe penetration seal with 2x Knauf FPC Panel 1-S	58
A.5.6	Pipe penetration seal with 2x Knauf FPC Panel 1-S	61
A.5.7	Knauf Firewrap penetration seal for plastic pipes, in 2x Knauf FPC Panel 1-S, in flexible or rigid walls	64
A.5.8	Knauf FP Service coating penetration seal for steel pipes, in 2x Knauf FPC Panel 1-S, in flexible or rigid walls	73
A.5.9	Penetration seal with 1x Knauf FPC Panel 50 2-S in framed aperture	75
A.6	Flexible or rigid wall constructions according to 2. 2) with wall thickness of minimum 120 mm	85
A.6.1	Plastic pipe penetration seal with 2x Knauf FPC Panel 2-S	85
A.6.2	Metallic pipe penetration seal with 2x Knauf FPC Panel 1-S	88
A.7	Timber wall constructions according to 2. 2) with wall thickness of minimum 100 mm	91
A.7.1	Knauf FPC Panel 50 mm 1-S penetration seal (pattress) with cables	91
	ANNEX B – Air Permeability – Knauf FPC Panel	92

I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

- 1) Knauf FPC Panel is a coated mineral wool board used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetration of single or multiple services.
- 2) The Knauf FPC Panel is supplied coated on one face, referenced 1-S, or on both faces, referenced 2-S. The board or boards are then cut to allow the penetration of the required services, before being inserted into the aperture in the wall.
- 3) Knauf Firewraps are required to be used in conjunction with Knauf FPC Panel depending upon the required application and classification (see Annex A). Knauf Firewraps are the subject of a separate ETA which is not declared in the document for confidentiality reasons.
- 4) The applicant has submitted a written declaration that Knauf FPC Panel does not contain substances which have to be classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the "Indicative list on dangerous substances" of the EGDS - taking into account the installation conditions of the construction product and the release scenarios resulting from there.

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.

2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350454-00-1104

Detailed information and data is given in Annex A.

- 1) The intended use of Knauf FPC Panel is to reinstate the fire resistance performance of flexible wall, rigid wall and floor constructions, and timber wall and floor constructions where they are penetrated by various cables, metallic pipes, composite pipes and plastic pipes.
- 2) The specific elements of construction that the system Knauf FPC Panel may be used to provide a penetration seal in, are as follows:
 - a. Flexible walls: The wall must have a minimum thickness of 75 mm and comprise steel or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards. Apertures are not required to be lined.
 - b. Timber walls: The wall must have a minimum thickness of 100 mm and comprise solid wood or cross-laminated timber.
 - c. Rigid walls: The wall must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.
 - d. Rigid floors: The floor must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m³.
 - e. Timber floors: The floor must have a minimum thickness of 150 mm and comprise solid wood or cross-laminated timber.

* no part of the penetration seal may be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

Knauf Fire Protection Systems which involve services penetrating both sides of a flexible wall may also be used in the situation where the services penetrates one side of the wall only and the remaining side of the wall is not penetrated at the same point (i.e. the services continues on the inside of the wall). All fire integrity and thermal insulation ratings for such single-sided penetrations remain the same as for the equivalent double-sided penetration.

- 3) The System Knauf FPC Panel may be used to provide a penetration seal with cables, cable trays, metallic pipes, composite pipes and plastic pipes, with and without insulation, with mixed services within the same seal/aperture (for details see Annex A).
- 4) The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.
- 5) The system Knauf FPC Panel may be used to seal apertures in the separating element of unlimited width by 1200mm high in a wall (uninterrupted separating studs will be required at 2400 mm centres or less in flexible walls), and 2400mm by 1200 mm in a floor. The additional sizes that are permitted in floors are:

Where 2400 x 1200 mm is specified in Annex A

Width (mm)	Length (mm)
1100	2900
1000	4000
900	7000
≤ 800	∞ (infinite)

Where 1200 x 600 mm is specified in Annex A

Width (mm)	Length (mm)
500	2000
≤ 400	∞ (infinite)

The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Knauf FPC Panel seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture.

- 6) Services in floors shall be supported at maximum 250mm from the top face. Services in walls shall be supported at maximum 270mm from both faces of the wall.
- 7) Where PP pipes are mentioned in Annex A, this includes PP-MV, PP-H, PP-R and similar if the pipe is according to EN 1451-1 or DIN 8077/8078. Where PE pipes are mentioned, this includes PE-LD, PE-MD, PE-HD, PE-X and similar according to EN 1519-1, EN 12201-2 or EN 12666-1.
- 8) A patrix system is boards installed on the surface of a wall instead of inside the aperture which can be used in Annex A as an alternative installation method, limited to EI 120. The aperture can be located within the wall with maximum size 1100 x 1100 mm or towards the soffit with maximum size 550 mm high x 1100 mm wide. The boards must be oversailing the aperture by 50 mm on both sides of the wall, bonded to the wall with FPC Coating and fixed with ≥ 5x100 mm single thread wood, masonry or concrete screws and penny washers of steel at 300 mm centres. Exposed board edges must be coated with Knauf FPC Coating. Soffit applications can be fixed on three sides.
- 9) Solutions in Annex A for 100 mm thick flexible walls, can be used in timber walls (see 2.2) if installed as a patrix system on the surface of a wall instead of inside the aperture. The aperture can be maximum 600mm high x 1200mm wide. The boards must be oversailing the aperture by 100 mm on both sides of the wall, fixed to the wall with ≥ 100 mm wood screws and penny washers of steel at 300 mm centres. The gap between board and wall must have a bead of Knauf FPA Acrylic. Exposed board edges must be coated with Knauf FPC Coating.
- 10) Solutions in Annex A for 100 mm thick flexible walls with double layer 50 mm thick boards, can be used in 75 mm thick flexible and rigid walls with a maximum aperture of 1,200mm high x 900mm wide, limited to EI 60 unless specified otherwise in Annex A. The boards must be positioned centrally within the wall, and any exposed mineral fibres must be coated with Knauf FPC Coating.
- 11) The provisions made in this European Technical Assessment are based on an assumed working life of the Knauf FPC Panel of 25 years, provided that the conditions laid down in the product datasheet for the packaging/transport/ storage/installation/use/repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the Technical 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.
- 12) Type Y₁: intended for use at temperatures below 0°C with exposure to UV but no exposure to rain. Includes lower classes Y₂, Z₁, Z₂.

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

Product-type: Sealant	Intended use: Penetration Seal
Essential characteristic	Product Performance
BWR 2 Safety in case of fire	
Reaction to fire	D – s1, d0
Resistance to fire	Annex A
BWR 3 Hygiene, health and environment	
Air permeability	Annex B
Water permeability	No performance assessed
Release of dangerous substances	Declaration of manufacturer
BWR 4 Safety in use	
Mechanical resistance and stability	No performance assessed
Resistance to impact/movement	No performance assessed
Adhesion	No performance assessed
Durability	Y ₁
BWR 5 Protection against noise	
Airborne sound insulation	29 (-1;-3) dB ¹ 29 (0;-2) dB ² 52 (-4;-7) dB ³ 53 (-4;-7) dB ⁴
BWR 6 Energy economy and heat retention	
Thermal properties	No performance assessed
Water vapour permeability	No performance assessed

¹ Single 50mm Knauf FPC Panel 2-S.² Single 60mm Knauf FPC Panel 2-S³ Double 50 or 60mm Knauf FPC Panel 1-S or 2-S⁴ Double 50 or 60mm Knauf FPC Panel 1-S or 2-S with 50mm cavity

4 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

According to the decision 1999/454/EC – Commission Decision of date 22nd June 1999 on the procedure for attesting the conformity of construction products pursuant to Article 20(2) of Council Directive 89/106/EEC as regards fire stopping, fire sealing and fire protective products, published in the Official Journal of the European Union (OJEU) L178/52 of 14/07/1999, (see <https://eur-lex.europa.eu/oj/direct-access.html>) of the European Commission¹, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table(s) applies (apply).

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Fire stopping and Fire Sealing Products	For fire compartmentation and/or fire protection or fire performance	Any	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 control plan deposited at ETA-Danmark A/S prior to CE marking

Issued in Copenhagen on 2021-11-25 by



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¹ Official Journal of the European Communities L178/52 of 14/7/1999