



DECLARATION OF PERFORMANCE

according to Annex III of the Regulation (EU) No 305/2011
(Construction Product Regulation)

Product name:

BOSTIK FP 404 Fire Retardant PU (Gun)Foam

DoP- No. 612850-20-03-1

1. Unique identification code of product type:

BOSTIK FP 404 Fire Retardant PU (Gun)Foam

2. Intended use:

FIRE STOPPING AND FIRE SEALING PRODUCTS – LINEAR JOINT AND GAP SEALS

3. Manufacturer/supplier:

BOSTIK BENELUX B.V. ■ DENARIUSSTRAAT 11 ■ NL - 4903 RC OOSTERHOUT

4. Systems of assessment and verification of the constancy of performance:

System 1

5. European Assessment Document:

EAD 350141-00-1106, edition September 2017

European Technical Assessment:

ETA-20/1118 of 15/06-2022

6. Technical Assessment Body:

SKG-IKOB Certificatie BV

Notified Body:

NB 0960 (SKG-IKOB Certificatie BV)

Bostik Benelux B.V.
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7. Performance of the product and references to the methods used for its assessment

The assessment of fitness for use has been made in accordance with EAD 350141-00-1106.

Bostik FP 404 Fire Retardant PU (Gun)Foam		
No	Essential Characteristic	Product performances
BWR 2 Safety in case of fire		
1	Reaction to fire	B-s1,d0
2	Resistance to fire	See annex A
BWR 3 Hygiene, health and environment		
3	Content, emission and/or release of dangerous substances	Declaration of manufacturer
4	Air permeability (material property)	No performance declared
5	Water permeability (material property)	No performance declared
BWR 4 Safety and accessibility in use		
6	Mechanical resistance and stability	No performance declared
7	Resistance to impact/movement	No performance declared
8	Adhesion	No performance declared
9	Durability	Z2
10	Movement capability	No performance declared
11	Cycling of perimeter seals for curtain walls	No performance declared
12	Compression set	No performance declared
13	Linear expansion on setting	No performance declared
BWR 5 Protection against noise		
14	Airborne sound insulation	See annex B
BWR 6 Energy economy and heat retention		
15	Thermal properties	No performance declared
16	Water vapour permeability	No performance declared

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8. The performance of the product identified above is in conformity with the set of declared performance(s). This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Bostik Benelux:

Vincent Imbos
Managing Director
Oosterhout, 19-06-2023

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Annex A – Resistance to fire

Fire resistance classification (vertical linear joint seals in a stone wall)		
Bostik FP 404 vertically orientated connecting stone to stone		
Wall thickness ≥ 70 mm EI 30 – V – X – F – W 8 to 10 EI 20 – V – X – F – W 10 to 20	Wall thickness ≥ 100 mm EI 90 – V – X – F – W 8 to 10 EI 45 – V – X – F – W 10 to 30	Wall thickness ≥ 115 mm EI 120 – V – X – F – W 8 EI 60 – V – X – F – W 8 to 20 EI 45 – V – X – F – W 20 to 30

E = Criterion integrity, I = Criterion Insulation, V = Vertical application in a vertical wall, X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)

The following conditions apply:

- the classifications are valid for linear joint seals in a wall with an orientation as mentioned (vertical). The classifications are valid in both directions;
- the linear joint seals may connect to any type of wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned in the classifications (70, 100 or 115 mm);
- the surfaces of the material on which FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;
- the allowed movement capability in practice is maximized to 7,5 %;
- the linear joint seal must be fully filled with FP 404 Fire Retardant PU (Gun)Foam.

Fire resistance classification (vertical linear joint seals in a stone wall)		
Bostik FP 404 vertically orientated connecting stone to stone		Bostik FP 404 vertically orientated connecting stone to wood
Wall thickness ≥ 150 mm EI 45 – V – X – F – W 8 to 40	Wall thickness ≥ 200 mm EI 120 – V – X – F – W 8 to 30 EI 60 – V – X – F – W 30 to 40	Wall thickness ≥ 100 mm EI 120 – V – X – F – W 8 to 20

E = Criterion integrity, I = Criterion Insulation, V = Vertical application in a vertical wall, X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)

The following conditions apply:

- the classifications are valid for linear joint seals in a wall with an orientation as mentioned (vertical). The classifications are valid in both directions;
- the linear joint seals may connect to any type of wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned in the classifications (100, 150 or 200 mm);



- if applicable, on the other side the linear joint seal connects to any type of wooden construction with a density of $500 \pm 50 \text{ kg/m}^3$ or more where the wooden construction is placed over the full thickness of the wall or minimal thickness as mentioned in the classifications (100 mm);
- the surfaces of the material on which FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;
- the allowed movement capability in practice is maximized to 7,5 %;
- the linear joint seal must be fully filled with FP 404 Fire Retardant PU (Gun)Foam.

Fire resistance classification (horizontal linear joint seals in a stone wall)
Bostik FP 404 connecting stone to wood
Wall thickness $\geq 100 \text{ mm}$ EI 90 – T – X – F – W 8 to 20

E = Criterion integrity, I = Criterion insulation, T = Horizontal application in a vertical wall, X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)

The following conditions apply:

- the classifications are valid for linear joint seals in a wall with an orientation as mentioned (horizontal). The classifications are valid in both directions;
- the linear joint seal connects on one side to any type of wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned in the classifications (100 mm);
- on the other side, the linear joint seal connects to any type of wooden construction with a density of $500 \pm 50 \text{ kg/m}^3$ or more where the wooden construction is placed over the full thickness of the wall or minimal thickness as mentioned in the classifications (100 mm);
- the surfaces of the material on which FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;
- the allowed movement capability in practice is maximized to 7,5 %;
- the linear joint seal must be fully filled with FP 404 Fire Retardant PU (Gun)Foam.

Fire resistance classification (linear joint seals in a floor)	
Thickness floor $\geq 100 \text{ mm}$	Thickness floor $\geq 150 \text{ mm}$
EI 60 – H – X – F – W 8 EI 45 – H – X – F – W 8 to 20 EI 30 – H – X – F – W 20 to 30 EI 20 – H – X – F – W 30 to 40	EI 120 – H – X – F – W 8 to 20 EI 60 – H – X – F – W 20 to 30 EI 45 – H – X – F – W 30 to 40

E = Criterion integrity, I = Criterion insulation, H = Horizontal supporting construction, (floor) X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)



Fire resistance classification (linear joint seals in a wall abutting a floor)	
Thickness both wall and floor ≥ 100 mm	Thickness both wall and floor ≥ 150 mm
EI 60 – T – X – F – W 8 EI 45 – T – X – F – W 8 to 20 EI 30 – T – X – F – W 20 to 30 EI 20 – T – X – F – W 30 to 40	EI 120 – T – X – F – W 8 to 20 EI 60 – T – X – F – W 20 to 30 EI 45 – T – X – F – W 30 to 40

E = Criterion Integrity, I = Criterion Insulation, T = Horizontal application in a wall abutting a floor, X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)

The following conditions apply:

- the linear joint seals may be applied at any type of floor and / or wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned above. In a floor application, the fire resistance applies from below. In a wall abutting a floor application, the fire resistance applies from both directions;
- the classifications are not valid for horizontally orientated joints in a wall;
- the surfaces of the material on which the FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;
- the allowed movement capability in practice is maximized to 7.5 %.

Fire resistance classification (linear joint seals in a wall abutting a floor)	
Thickness wall ≥ 70 mm, thickness floor ≥ 100 mm	Thickness wall ≥ 100 mm, thickness floor ≥ 150 mm
EI 45 – T – X – F – W 8 to 15	EI 45 – T – X – F – W 8 to 20 EI 30 – T – X – F – W 20 to 30

E = Criterion Integrity, I = Criterion Insulation, T = Horizontal application in a wall (abutting a floor), X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (fully filled joint seal)

The following conditions apply:

- the linear joint seals may be applied for a horizontal orientation in a vertical wall or a horizontal orientation in a vertical wall abutting a horizontal floor;
- the linear joint seals may be applied to any type of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned above;
- the classifications are also valid for horizontally orientated joints in a wall;
- the surfaces of the material on which the FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;



the allowed movement capability in practice is maximized to 7.5 %.

Classification of the fire resistance *Bostik FP 404 in combination with other Bostik FP sealants*

Fire resistance classification (Bostik FP 403 in combination with Bostik FP 404) Bostik FP 403 Hybrid applied at the unexposed face, Bostik FP 404 applied at the exposed face	
Vertically orientated connecting stone to stone Wall thickness ≥ 115 mm EI 180 – V – X – F – W 8 to 25 EI 240 – V – X – F – W 8 E 240 – V – X – F – W 8 to 25	
Vertically orientated connecting stone to wood Wall thickness ≥ 100 mm EI 120 – V – X – F – W 8 to 20	Horizontally orientated connecting stone to wood Wall thickness ≥ 100 mm EI 120 – T – X – F – W 8 to 20

Fire resistance classification (Bostik FP 401 in combination with Bostik FP 404) Bostik FP 401 Acrylic applied at the unexposed face, Bostik FP 404 applied at the exposed face	
Vertically orientated connecting stone to stone Wall thickness ≥ 115 mm EI 180 – V – X – F – W 8 to 30 EI 240 – V – X – F – W 8 E 240 – V – X – F – W 8 to 30	

Fire resistance classification (Bostik FP 402 in combination with Bostik FP 404) Bostik FP 402 Silicone applied at the unexposed face, Bostik FP 404 applied at the exposed face	
Vertically orientated connecting stone to stone Wall thickness ≥ 115 mm EI 180 – V – X – F – W 8 to 40 EI 240 – V – X – F – W 8 E 240 – V – X – F – W 8 to 40	

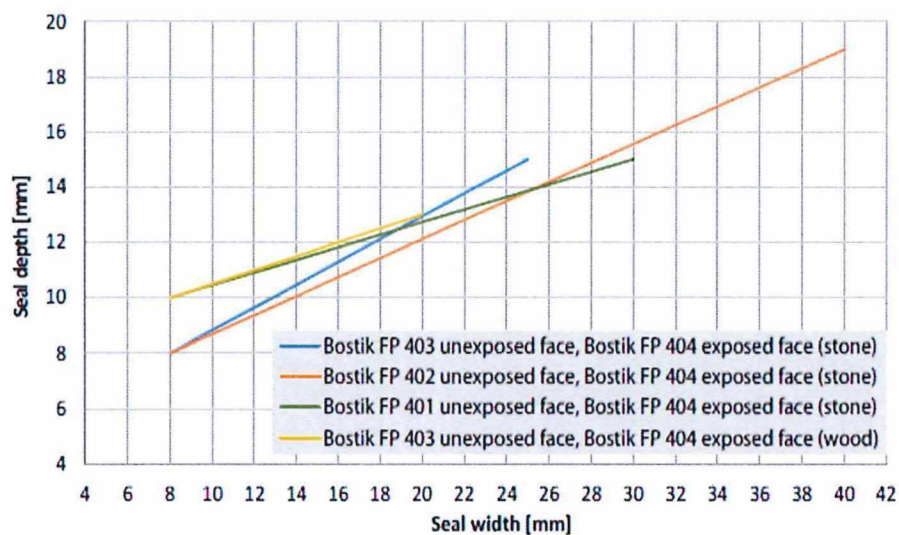
E = Criterion integrity, I = Criterion insulation, V = Vertical application in a vertical wall, T = Horizontal application in a vertical wall
 X = No movement applied, F = Splice applied in the field, W = Permitted width range in millimetres (see Graph 1 for seal depth)



The following conditions apply:

- the classifications are valid for linear joint seals in a wall with an orientation as mentioned (horizontal or vertical). The classifications are valid for the Bostik FP sealant applied at the unexposed face and valid in one direction;
- the linear joint seals may connect to any type of wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness as mentioned in the classifications (100 or 115 mm);
- in combination with Bostik FP 403 Fireseal Hybrid, the linear joint seals may connect to any type of wooden construction with a density of $500 \pm 50 \text{ kg/m}^3$ or more where the wooden construction is placed over the full thickness of the wall or at least 100 mm;
- the surfaces of the material on which Bostik FP sealant and FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and treated with primer and moistened with water when needed;
- the required depth of Bostik FP sealant depends on the width of the linear joint seal. The minimum depth of the Bostik FP sealant in relation to the width of the linear joint seal is shown in Graph 1 below. The required depth of the sealant may also be increased with respect to the Graph (the lines are the minimum and recommended seal depth). The rest of the slot is fully filled with FP 404 Fire Retardant PU (Gun)Foam;
- the allowed movement capability in practice is maximized to 7.5 %.

Graph 1: Minimum seal depth in relation to the seal width





Fire resistance classification (Bostik FP 401 in combination with Bostik FP 404)	
Bostik FP 401 Acrylic applied at the exposed face, Bostik FP 404 applied at the unexposed face	
Vertically orientated connecting stone to stone	
Wall thickness ≥ 70 mm	
EI 45 – V – X – F – W 8 to 20 E 240 – V – X – F – W 8 to 20	
Wall thickness ≥ 100 mm	
EI 90 – V – X – F – W 8 to 30 E 120 – V – X – F – W 8 to 30 EI 30 – V – X – F – W 30 to 40	

Fire resistance classification (Bostik FP 402 in combination with Bostik FP 404)	
Bostik FP 402 Silicone applied at the exposed face, Bostik FP 404 applied at the unexposed face	
Vertically orientated connecting stone to stone	
Wall thickness ≥ 150 mm	
EI 60 – V – X – F – W 8 to 50	
Wall thickness ≥ 200 mm	
EI 45 – V – X – F – W 8 to 50	

Fire resistance classification (Bostik FP 403 in combination with Bostik FP 404)	
Bostik FP 403 Hybrid applied at the exposed face, Bostik FP 404 applied at the unexposed face	
Vertically orientated connecting stone to stone	
Wall thickness ≥ 100 mm	
EI 45 – V – X – F – W 8 to 40 E 120 – V – X – F – W 8 to 40	
Wall thickness ≥ 150 mm	
EI 60 – V – X – F – W 8 to 50	
Wall thickness ≥ 200 mm	
EI 120 – V – X – F – W 8 to 50	

E = Criterion Integrity, I = Criterion Insulation, V = Vertical application in a vertical wall, X = No movement applied, F = Splice applied in the field,
W = Permitted width range in millimetres (depth see conditions)



The following conditions apply:

- the classifications are valid for a vertical orientation in a vertical wall;
- the linear joint seals may be applied to any type of wall of aerated concrete (class G4/600 or heavier), concrete, block work, limestone or masonry with a minimal thickness of 70 mm, 100 mm, 150 mm or 200 mm;
- the surfaces of the material on which the sealant is applied are thoroughly cleaned and treated with Primer when needed. The the surfaces of the material on which the FP 404 Fire Retardant PU (Gun)Foam is applied are thoroughly cleaned and moistened with water when needed;
- the required depth of the Bostik FP sealant is minimal 3 mm. The rest of the slot is fully filled with FP 404 Fire Retardant PU (Gun)Foam;
- the linear joint seals are tested without mechanically induced movement, therefore the allowed movement capability in practice is maximized to 7.5 %;
- the classifications are valid for Bostik FP sealant applied at the exposed face.



Annex B – Airborne sound insulation

Joint width	10	20	30	40
Joint depth	100 mm	100 mm	100 mm	100 mm
$R_{s,w}(C;C_{tr})$	53(-1;-4) dB	51(-1;-3) dB	45(-1;-1) dB	41(-1;-4) dB
$C_{100-5000};C_{tr,100-5000}$	(0;-4) dB	(-2;-3) dB	(-1;-1) dB	(0;-4) dB
$C_{50-3150};C_{tr,50-3150}$	(-1;-7) dB	(-1;-5) dB	(-1;-2) dB	(-1;-7) dB
$C_{50-5000};C_{tr,50-5000}$	(0;-7) dB	(-2;-5) dB	(-1;-2) dB	(0;-7) dB
$D_{n,e,w}$	60 dB	58 dB	52 dB	48 dB
R_w	33 dB	34 dB	30 dB	27 dB