





designated according to Article 29 of the Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment, www.eota.eu)

European Technical Assessment

ETA 19/0389 of 12/07/2019

Technical Assessment Body issuing the E 29 of the Regulation (EU) No 305/2011:	TA and designated according to Article UL International (UK) Ltd
Trade name of the construction product	Bostik FP 350 Graphite Plate
Product family to which the construction product belongs	Fire Stopping and Sealing Product:Penetration Seals
Manufacturer	Bostik BV De Voerman 8, PO Box 303, 5201 AH's-Hertogenbosch The Netherlands
Manufacturing plant(s)	A/003
This European Technical Assessment contains	21 pages including 1 Annex which forms an integral part of this assessment.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	EAD 350454-00-1104, September 2017.
Corrigendum No. 1	

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Table of Contents

١.	SPECIF	IC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT	3
	1 Te	chnical description of the product	3
:	2 Sp EA	ecification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafte D): EAD 350454-00-1104	r 3
:	3 Pe	rformance of the product and references to the methods used for its assessment	4
	4 AS ITS	SESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE T S LEGAL BASE	0 5
!	5 Te	chnical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD	5
	5 Iss	ued on:	6
AN	NEX A – F	Resistance to Fire Classification – Bostik FP 350 Graphite Plate	7
	4.1	Flexible wall constructions with wall thickness of minimum 75 mm	7
	A.1.1	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back.	7
	A.1.2	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes side by side, with one fitted each face.	า 8
	4.2	Flexible wall constructions with wall thickness of minimum 100 mm	9
	A.2.1	Cable penetration seal with 3.8 mm thick Bostik FP 350 Graphite Plate in socket box	9
	۹.3	Flexible wall constructions with wall thickness of minimum 100 mm	10
	A.3.1	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back	10
	A.3.2	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back	11
	A.3.3	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes side by side of stud	12
	A.3.4	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	13
	A.3.5	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	14
	A.3.6	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	15
	A.3.7	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	16
	A.3.8	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	17
	A.3.9	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	18
	A.3.10	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	19
	A.3.11	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	20
	A.3.12	Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box	21

I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 <u>Technical description of the product</u>

- 1) Bostik FP 350 Graphite Plate is a preformed, self-adhesive intumescent sheet used to reinstate the fire resistance performance of wall constructions where they have been provided with apertures for the penetration of cables into socket boxes, on both sides or one side of the wall.
- 2) The Bostik FP 350 Graphite Plate is supplied pre-cut to size with a peel off strip to one face to protect the adhesive layer. The Bostik FP 350 Graphite Plate is installed by removing the peelable strip and placing the pad to the back face, within the socket box.
- 3) The applicant has submitted a written declaration that Bostik FP 350 Graphite Plate 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 <u>Specification of the intended uses of the product in accordance with the applicable European Assessment</u> <u>Document (Hereinafter EAD): EAD 350454-00-1104</u>

Detailed information and data is given in Annex A.

- 1) The intended use of Bostik FP 350 Graphite Plate is to reinstate the fire resistance performance of flexible wall constructions where they are penetrated by cables in socket boxes.
- 2) The specific elements of construction that the system Bostik FP 350 Graphite Plate 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 studs lined on both faces with minimum 1 layer of 12.5 mm thick board.

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

- 3) The System Bostik FP 350 Graphite Plate may be used to provide a penetration seal with cables in socket boxes (for details see Annex A).
- 4) The system Bostik FP 350 Graphite Plate may be used to seal apertures in the separating element up to 140 mm wide by 83 mm high (aperture containing socket box). The aperture around the socket box should be as tightly fitting as possible and gaps filled with plaster filler.
- 5) The provisions made in this European Technical Assessment are based on an assumed working life of the Bostik FP 350 Graphite Plate of 50 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, 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.

6) Type Z_2 : Intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV.

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

Product-type: Intumescent	sheet	Intended use: Penetration Seal		
Assessment method	Essential cha	aracteristic	Product performance	
	BWR 2 Safety	in case of fire		
EN 13501-1	Reaction	n to fire	No performance determined	
EN 13501-2	Resistanc	ce to fire	Annex A	
	BWR 3 Hygiene, hea	Ith and environment		
EN 1026	Air perm	eability	No performance determined	
EAD 350454-00-1104, Annex C	Water per	meability	No performance determined	
Declaration of manufacturer & EN 16516	Content, emission dangerous	and/or release of substances	Declaration of manufacturer	
BWR 4 Safety in use				
EOTA TR 001:2003	Mechanical resista	ance and stability	No performance determined	
EOTA TR 001:2003	Resistance to im	pact/movement	No performance determined	
EOTA TR 001:2003	Adhe	sion	No performance determined	
EAD 350454-00-1104, Clause 2.2.9	Dura	pility	Z ₂	
	BWR 5 Protection	on against noise		
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sou	nd insulation	No performance determined	
	BWR 6 Energy econor	ny and heat retentio	n	
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 14683, EN ISO 10211, EN ISO 10456	Thermal p	roperties	No performance determined	
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour	permeability	No performance determined	

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 http://eur-lex.europa.eu/JOIndex.do) 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 <u>Technical details necessary for the implementation of the AVCP system, as provided for in the applicable</u> <u>EAD</u>

Tasks of the manufacturer:

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 ensure 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 of this European Technical Assessment.

The factory production control shall be in accordance with the Control Plan of 17/06/2016 relating to the European technical assessment ETA 19/0389 issued on 12/07/2019 which is part of the technical documentation of this European technical approval. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at UL International (UK) Ltd.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

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

Other tasks of the manufacturer

Additional information

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

- (a) Technical data sheet:
 - Field of application:
 - Building elements for which the penetration seal is suitable, type and properties of the building elements like minimum thickness, density, and in case of lightweight constructions the construction requirements.
 - Limits in size, minimum thickness etc. of the penetration seal
 - Construction of the penetration seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.
 - Services which the penetration seal is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. cable trays)
- (b) Installation instruction:
 - Steps to be followed
 - Procedure in case of retrofitting
 - Stipulations on maintenance, repair and replacement
- 6 Issued on:

12th July 2019

Report by:

D. Yates Project Engineer Building and Life Safety Technologies

For and on behalf of UL International (UK) Ltd.

Reviewed by:

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ANNEX A – Resistance to Fire Classification – Bostik FP 350 Graphite Plate

A.1 Flexible wall constructions with wall thickness of minimum 75 mm

A.1.1 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back.



A.1.1.1 Double side penetration seal with cables in socket boxes

Services	Socket box	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
	UK standard double socket	110mm wide x			
Cables up to	box, 145mm wide x 85mm	60mm high x 4mm	Back to back	124 wide	
14mm	high x 35mm deep, each	thick, fitted lining	 – 1 fitted to 	154 Wide	EI 30
diameter	with up to 25mm hole cut	the back of the	each face		
	to accept the cables	back box			

A.1.2 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes side by side, with one fitted each face.

Penetration Seal: Cables installed within socket boxes with Bostik FP 350 Graphite Plate adhered to back face within the socket box.



A.1.2.1 Double side penetration seal with cables in socket boxes

Services	Socket box	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
Cables up to 14mm diameter Plastic conduits with or without cables	Elko 3012 S57/100 1223789 red standard box	45mm wide x 45mm high x 4mm thick, fitted lining the back of the socket box	Adjacent each side of stud – 1 fitted to each face	74mm Ø	E 60, El 45

A.2 Flexible wall constructions with wall thickness of minimum 100 mm

A.2.1 Cable penetration seal with 3.8 mm thick Bostik FP 350 Graphite Plate in socket box



A.2.1.1 Double side penetration seal with cables in socket boxes

Services	Socket box*	Bostik FP 350 Graphite Plate mm	Aperture mm	Classification
Cables up to 14 mm diameter	ELKO 45/Stender 6-1øp	59 Ø x 3.8		
Plastic conduit 22 mm diameter, with or without cables	Or ELKO 3012 S57/100 1223789 #	Or 46 x 46 x 3.8	73-74 Ø^	EI 60

*Fixed directly to studs or with steel plate between studs.

^Aperture shall be as tightly fitting as possible and infilled with building plaster.

A.3 Flexible wall constructions with wall thickness of minimum 100 mm

A.3.1 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back



A.3.1.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
	Schneider Electric Ref. IMT	3no. Bostik FP 350	Back to back		
Cables up to	36316 connection box,	Graphite Plate,	 – 1 fitted to 		
14mm	100mm Ø cover plate with	each fitted lining	each face,	70mm Ø	E 90, EI 60
diameter	70mm Ø x 48mm deep	the back of the	fixed to the		
	back box	socket box	stud		

A.3.2 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes back to back



A.3.2.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
	Rutab 8 connection/junction box, 100mm Ø cover plate with 80mm Ø x 47mm deep back box	57mm wide by 74mm high, fitted lining the back of the back box		80mm Ø	EI 90
	Schneider Electric IMT 36190 connection box, 100mm Ø cover plate with 52mm Ø x 44mm deep back box	30mm wide by 30mm high, fitted lining the back of the back box		52mm Ø	EI 120
Cables up to 14mm diameter	Schneider Electric TED26 IMT66mm wide byBack to36263 connection box, with52mm high, fittedback - 183mm Ø x 47mm deep backlining the back offitted toboxthe back boxeach face	83mm Ø	EI 90		
	Schneider Electric TED A26 IMT 36256 connection box, with 72mm Ø x 37mm deep back box	46mm wide by 46mm high, fitted lining the back of the back box		72mm Ø	EI 90
	Elko 4038 1225422 connection box, with 50mm Ø x 40mm deep back box	30mm wide by 30mm high, fitted lining the back of the back box		50mm Ø	EI 90

A.3.3 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket boxes side by side of stud



A.3.3.1 Double side penetration seal with cables in socket boxes

ſ	Services	Socket box^	Bostik FP 350	Position	Aperture	Classification
			Graphite Plate		mm	
ſ		ABB AU60.1 Ref.	44mm wide x	Adjacent		
	Cables up to	2TKA001744G1/122008	44mm high x 4mm	each side of		
	14mm	connection box, 100mm Ø	thick, fitted lining	stud – 1	70mm Ø	EI 60
	diameter	cover plate with 70mm Ø x	the back of the	fitted to each		
		55mm deep back box	socket box	face		



A.3.4 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.4.1 Double side penetration seal with cables in socket boxes

Services	Socket box	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
Cables up to 14mm diameter	Fuga Forfradåse 1M socket ref: 504DA020	4no. 25 mm x 15 mm fitted on socket walls and 1no. 25 mm x 7 mm fitted lining the back of the socket	Back to back	52mm (d	El 120
	Fuga Air Forfradåse 1M socket ref: 504D30100	4no. 25 mm x 15 mm fitted on socket walls and 1no. 20 mm x 20 mm fitted lining the back of the socket	each face	5211111 Ø	EI 90

A.3.5 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box



A.3.5.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
Cables up to 14mm diameter	Schneider Electric IMT 36193 connection box, 70mm wide x 70mm high x 70mm deep	45mm wide x 45mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	70mm Ø	EI 45
	Schneider Electric IMT 36200 connection box, 70mm wide x 70mm high x 70mm deep				EI 60
	Schneider Electric IMT 36356 connection box, 70mm wide x 70mm high x 58mm deep				EI 60



A.3.6 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.6.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
	Schneider Electric IMT 36192 connection box, 70mm wide x 70mm high x 58mm deep	45mm wide x 45mm high, fitted lining the back of the inside of the socket box		70mm Ø	EI 60
Cables up to 14mm diameter	Schneider Electric IMT 36205 connection box, 70mm wide x 140mm high x 57mm deep	Adjacent 2no. 55mm wide x each side of 45mm high, (1no. piece fitted either to each face	140mm x 70mm	EI 60	
	Elko 3011 connection box, 70mm wide x 140mm high x 57mm deep	side of separator, lining the back of the inside of the socket box)		(with rounded edges)	EI 60



A.3.7 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.5.7.1 Double side perietration sear with cables in socket box	A.3.7.1	Double side	penetration	seal with	cables in	n socket k	oxes
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Services	Socket box	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
Cables up to	Schneider Electric 55/94 2 IØp connection box, 70mm wide x 140mm high x 57mm deep^	2no. 55mm wide x 45mm high, (1no. piece fitted either side of separator, lining the back of the inside of the socket box)	Adjacent each side of stud – 1 fitted to each face	140mm x 70mm (with rounded edges)	EI 60
14mm diameter	Schneider Electric IMT 36030 connection box, 80mm wide x 144mm high x 55mm deep	8no. 20mm wide x 35mm high pieces,	Adjacent – one fitted on each face -	140mm x 75mm	EI 30
	Elko 4545 connection box, 80mm wide x 144mm high x 55mm deep	lining the back and sides of the inside of the socket box	surface mounted on plasterboard	(with rounded edges)	EI 45



A.3.8 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.8.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
Cables up to 14mm diameter	Elko 4040 connection box, 70mm wide x 70mm high x 70mm deep	45mm wide x 45mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	70mm Ø	EI 60



A.3.9 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.9.1 Double side penetration seal with cables in socket boxes

Services	Socket box^	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
Cables up to 14mm diameter	Schneider Electric IMT 36029 connection box, 70mm wide x 90mm high x 57mm deep	44mm wide x 60mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	91mm x 71mm (with rounded edges)	EI 60
Cables up to 14mm diameter	Schneider Electric IMT 36006 connection box, 70mm wide x 70mm high x 70mm deep	45mm wide x 45mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	70mm Ø	EI 60



A.3.10 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.10.1	Double side	penetration	seal with	cables in	n socket l	boxes
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Services	Socket box^	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
Cables up to 14mm diameter	Schneider Electric IMT 36016 connection box, 70mm wide x 70mm high x 58mm deep	45mm wide x 45mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	70mm Ø	EI 60
Cables up to 14mm diameter	Elko 4045 connection box, 70mm wide x 90mm high x 57mm deep	45mm wide x 60mm high, fitted lining the back of the inside of the socket box	Adjacent each side of stud – 1 fitted to each face	91mm x 71mm (with rounded edges)	EI 60



A.3.11 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.11.1 Double side penetration seal with cables in socket boxes

Services	Socket box	Bostik FP 350 Graphite Plate	Position	Aperture mm	Classification
Cables up to 14mm diameter	Rutab 3 connections junction box "Article No. 1426102"	65mm Ø with 10mm trimmed off 2no. parallel edges	Back to back – 1 fitted to each face	75mm Ø	E 120, El 90



A.3.12 Cable penetration seal with 4.0 mm thick Bostik FP 350 Graphite Plate in socket box

A.3.12.1 Double side	penetration seal with	cables in socket boxes
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Services	Socket box	Bostik FP 350	Position	Aperture	Classification
		Graphite Plate		mm	
Cables up to 14mm diameter	Schneider Electric 60/46 connection box, no. 1223281, 70mm wide x 70mm high x 65mm deep	5no. 20mm wide x 50mm high pieces, lining the back and sides of the inside of the socket box	1 fitted to each face (side by side), mounted in the plasterboard - Omm between each socket	71mm x 71mm	E 90, El 45