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CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2:2007+A1:2009

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Prepared by:

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Product name:

Linear joint seals – Schiuma Poliuretanic
Antifuoco EI 240 Manuale and Schiuma
Poliuretanic Antifuoco EI 240 Pistola

Classification report No.:

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1

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This classification report consists of seventeen pages and may only be used or reproduced in its entirety.

1. Introduction

This classification report defines the resistance to fire classification assigned to the elements – linear joint seals – Schiuma Poliuretana Antifuoco EI 240 Manuale and Schiuma Poliuretana Antifuoco EI 240 Pistola in accordance with the procedures given in EN 13501-2:2007+A1:2009.

2. Details of classified product

2.1. General

The element, linear joint seal – Schiuma Poliuretana Antifuoco EI 240 Manuale and Schiuma Poliuretana Antifuoco EI 240 Pistola is defined as vertical and horizontal linear joints seals in vertical building supporting construction.

2.2. Description

The element, linear joint seals – Schiuma Poliuretana Antifuoco EI 240 Manuale and Schiuma Poliuretana Antifuoco EI 240 Pistola selling by Selena Italia srl. is described below.

Linear joint seals are made of:

- a) fire protection polyurethane foam with fire retardant - Schiuma Poliuretana Antifuoco EI 240 Pistola - GUN VERSION (gun recipe – adjusted to application by using application's gun), or
- b) fire protection polyurethane foam with fire retardant - Schiuma Poliuretana Antifuoco EI 240 Manuale - PIPE VERSION (pipe recipe – adjusted to application by using application's elastic pipe).

View and cross section and construction details are presented on figures No. 1 and 2.

2.2.1. Type 1. Vertical linear joints seals in vertical building supporting construction.

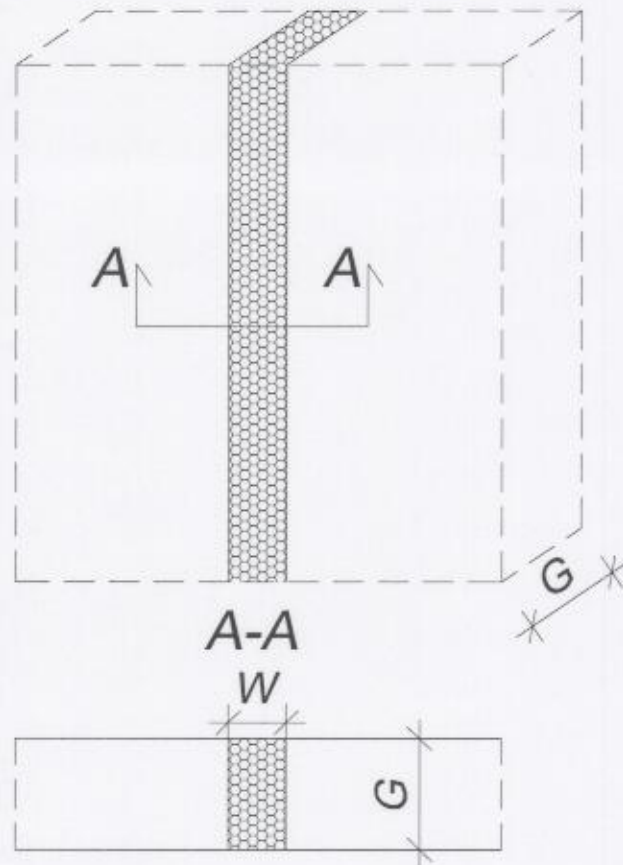


Fig. 1. View and horizontal cross-section.

2.2.2. Type 2. Horizontal linear joints seals in vertical building supporting construction.

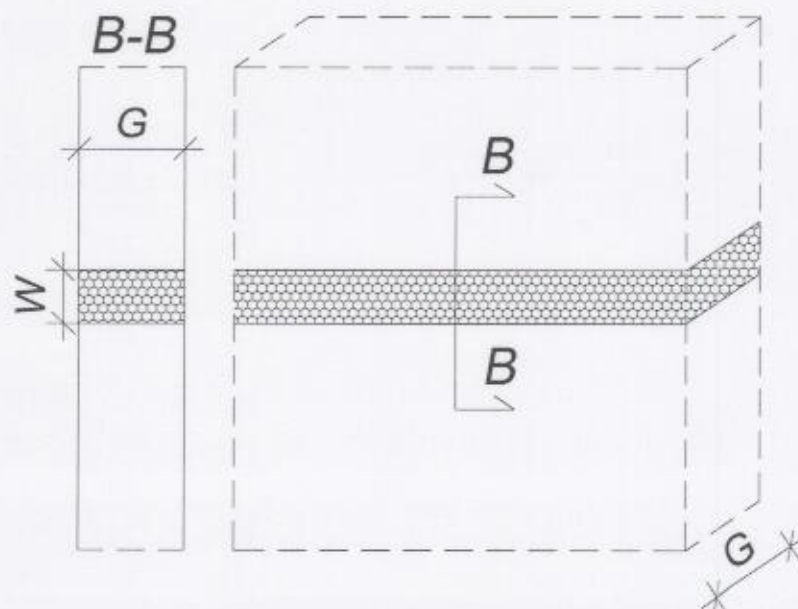


Fig. 1. View and vertical cross-section.

3. Test reports/extended application reports and test results in support of the classification

3.1. Test reports/extended application reports

Name of Laboratory	Name of sponsor	Test and date	Test method
Fire Research Laboratory of Building Research Institute Ksawerów St. 21 PL 02-656 Warsaw	ORION Sp. z o.o.	LP-02393/09 10.07.2009	EN 1366-4:2006

3.2. Test results

Test method, number and date	Parameter	Results
EN 1366-4:2006 LP-02393/09 10.07.2009	Linear joint seal Type 2 - see clause 2.2.2 - PIPE VERSION - width of joint - W = 30 mm	
	supporting construction integrity cotton pad gap gauges sustained flaming	G = 20 cm trick wall made of aerated concrete blocks 110 minutes no failure 110 minutes no failure 110 minutes
	insulation	110 minutes no failure
	Linear joint seal Type 2 - see clause 2.2.2 - GUN VERSION - width of joint - W = 30 mm	
	supporting construction integrity cotton pad gap gauges sustained flaming	G = 20 cm trick wall made of aerated concrete blocks 120 minutes no failure 120 minutes no failure 120 minutes
	insulation	120 minutes no failure

Linear joint seal Type 1 - see clause 2.2.1 - PIPE VERSION - width of joint – W = 20 mm	
supporting construction integrity cotton pad gap gauges sustained flaming insulation	G = 20 cm trick wall made of aerated concrete blocks 184 minutes no failure 184 minutes no failure 184 minutes 184 minutes no failure
Linear joint seal Type 1 - see clause 2.2.1 - GUN VERSION - width of joint – W = 10 mm	
supporting construction integrity cotton pad gap gauges sustained flaming insulation	G = 20 cm trick wall made of aerated concrete blocks 240 minutes no failure 240 minutes no failure 240 minutes no failure 240 minutes no failure
Linear joint seal Type 1 - see clause 2.2.1 - PIPE VERSION - width of joint – W = 32 mm	
supporting construction integrity cotton pad gap gauges sustained flaming insulation	G = 20 cm trick wall made of aerated concrete blocks 145 minutes no failure 145 minutes no failure 145 minutes 145 minutes no failure
Linear joint seal Type 1 - see clause 2.2.1 - GUN VERSION - width of joint – W = 32 mm	
supporting construction integrity cotton pad gap gauges sustained flaming insulation	ściana o grubości G = 20 cm z bloków z betonu lekkiego 125 minutes no failure 125 minutes no failure 125 minutes 125 minutes no failure

4.2.1.1. Linear joint seal Type 1 according to 2.2.1 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Pistola - **GUN VERSION** (according to Fig. 1)

– joint width **from 6 to 10 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – V – X – F – W 6 to 10 *)

– joint width **from 11 to 20 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	180													
		180												

Resistance to fire class: EI 180 – V – X – F – W 11 to 20 *)

– joint width **from 21 to 32 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	120													
		120												

Resistance to fire class: EI 120 – V – X – F – W 21 to 32 *)

4.2.1.2. Linear joint seal Type 1 according to 2.2.1 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Manuale - **PIPE VERSION** (according to Fig. 1)

– joint width **from 6 to 10 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – V – X – F – W 6 to 10

*)

– joint width **from 11 to 20 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	180													
		180												

Resistance to fire class: EI 180 – V – X – F – W 11 to 20

*)

– joint width **from 21 to 32 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	120													
		120												

Resistance to fire class: EI 120 – V – X – F – W 21 to 32

*)

4.2.1.3. Linear joint seal Type 1 according to 2.2.1 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Pistola - **GUN VERSION** (according to Fig. 1)

– joint width **from 6 to 11 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – V – X – F – W 6 to 11

*)

– joint width **from 12 to 22 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	120													
		120												

Resistance to fire class: EI 120 – V – X – F – W 12 to 22

*)

– joint width **from 23 to 32 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	180													
		180												

Resistance to fire class: EI 180 – V – X – F – W 22 to 32

*)

4.2.1.4. Linear joint seal Type 1 according to 2.2.1 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Manuale - PIPE VERSION (according to Fig. 1)

– joint width **from 6 to 10 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – V – X – F – W 6 to 10

*)

– joint width **from 11 to 22 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – V – X – F – W 12 to 22

*)

– joint width **from 22 to 32 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	180													
		180												

Resistance to fire class: EI 180 – V – X – F – W 22 to 32

*)

4.2.2.1. Linear joint seal Type 2 according to 2.2.2 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Pistola - **GUN VERSION** (according to Fig. 2)

– joint width **from 6 to 30 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	120													
		120												

Resistance to fire class: EI 120 – T – X – F – W 6 to 30

*)

4.2.2.2. Linear joint seal Type 2 according to 2.2.2 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Manuale - **PIPE VERSION** (according to Fig. 2)

– joint width **from 6 to 11 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – T – X – F – W 6 to 11

*)

– joint width **from 12 to 30 mm**

– minimum wall thickness - **20 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	90													
		90												

Resistance to fire class: EI 90 – T – X – F – W 12 to 30

*)

4.2.2.3. Linear joint seal Type 2 according to 2.2.2 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Pistola - **GUN VERSION** (according to Fig. 2)

– joint width **from 6 to 11 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – T – X – F – W 6 to 11

*)

– joint width **from 12 to 30 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	180													
		180												

Resistance to fire class: EI 180 – T – X – F – W 12 to 30

*)

4.2.2.4. Linear joint seal Type 2 according to 2.2.2 - joints sealed with fire protection polyurethane foam Schiuma Poliuretana Antifuoco EI 240 Manuale - **PIPE VERSION** (according to Fig. 2)

– joint width **from 6 to 11 mm**

– minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	240													
		240												

Resistance to fire class: EI 240 – T – X – F – W 6 to 11

*)

- joint width **from 12 to 30 mm**
- minimum wall thickness - **24 cm**

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	120													
		120												

Resistance to fire class: EI 120 – T – X – F – W 12 to 30 *)

4.3. Field of application

This classification is valid for the following end use applications:

4.3.1. Permitted orientation in accordance with PN-EN 1366-4:2008:

- **B** – vertical linear joint seals in vertical building elements – joints classified in 4.2.1.1 - 4.2.1.4,
- **C** – vertical linear joint seals in vertical building elements – joints classified in 4.2.2.1 - 4.2.2.4,

4.3.2. Application to supporting constructions elements in accordance with 13.2 of EN 1366-4:2006 made of aerated concrete blocks, concrete, concrete works and masonry with full filled mortar density at least 600 kg/m^3 and thickness given in 4.2.

4.3.3. Application to straight linear joints with parallel surfaces of elements sealed edges in accordance with Fig. 3.

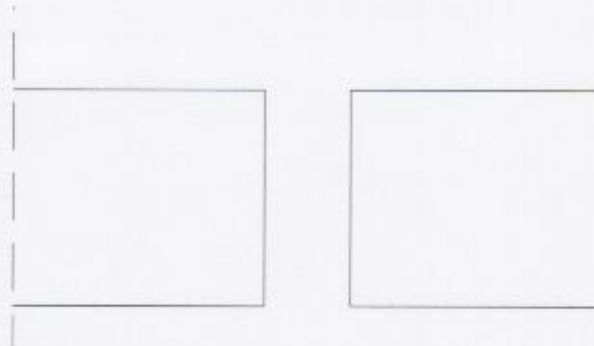
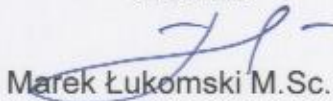


Fig. 3.

5. Limitations

This classification document does not represent type approval or certification of the product.

SIGNED


Marek Łukomski M.Sc. Civil Eng.

APPROVED

Head of Fire Research Department


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