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

Sponsor:

Tremco illbruck Sp. z o. o.
ul. Kuźnicy Kołłątajowskiej 13,
31-234 Kraków

Prepared by:

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Product name:

Linear joint seals made of *Nullifire FF 197 / FF 177 Fire rated PU FOAM* of Tremco illbruck company

Classification report No.:

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Appendix № 1:

-

Pages: -

**This classification report consists of 7 pages and only to be used
or reproduced in its entirety.**

1. Introduction

The classification report defines the resistance to fire classification assigned to the elements – linear joint seals made of *Nullifire FF 197 / FF 177 Fire rated PU FOAM* of company Tremco Illbruck, in accordance with the procedures given in EN 13501-2:2007.

2. Details of classified product

2.1. General

The elements – linear joint seals made of *Nullifire FF 197 / FF 177 Fire rated PU FOAM* of Tremco illbruck company, defined as vertical linear joint seals in vertical building elements.

2.2. Description

The subjects of the classification report are linear joint seals of Tremco illbruck company, fully described below.

Details of linear joint seals of Tremco illbruck company are shown in figures 1 ÷ 6.

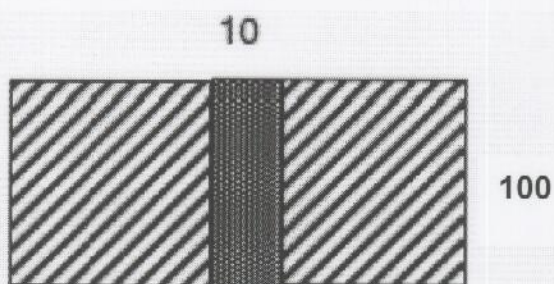


Fig. 1. Type 1 a) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

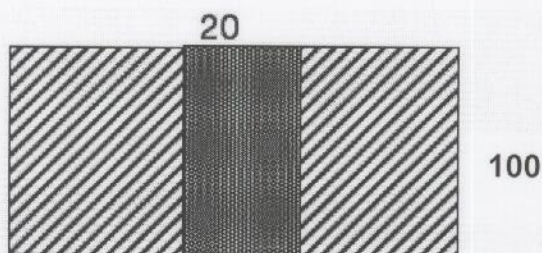


Fig. 2. Type 1b) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

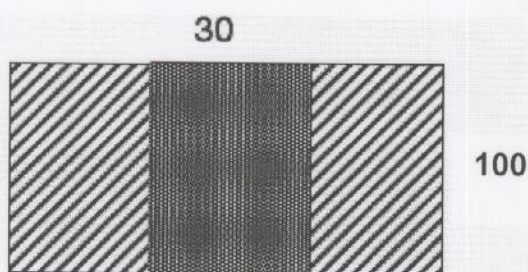


Fig. 3. Type 1c) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

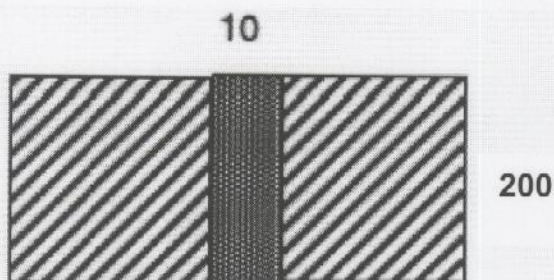


Fig. 4. Type 1 d) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

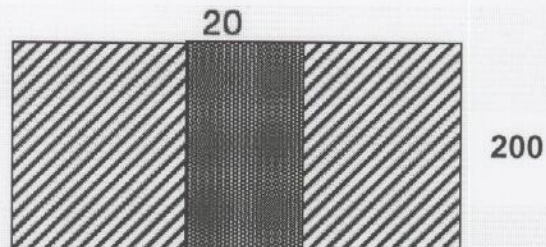


Fig. 5. Type 1e) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

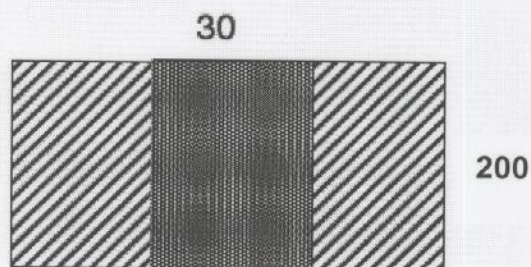


Fig. 6. Type 1f) – Nullifire FF 197 / FF 177 Fire rated PU FOAM

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

3.1. Test report/extended application reports

Name of laboratory	Name of sponsor	Test and date	Test method
Fire Testing Laboratory Building Research Institute 21, Ksawerów St. PL 02-656 Warsaw	Tremco illbruck Sp. z o. o. ul. Kuźnicy Kołtająowskiej 13, 31-234 Kraków	LP-812/08 2008.08.31*	PN-EN 1366-4:2006
<p>*/ The name of linear joint seal was changed from <i>illbruck 1 C Fire Retardant gun foam / Flame Shield NBS fire resistant gun foam</i> to <i>Nullifire FF 197 / FF 177 Fire rated PU FOAM</i>, on the customer request.</p> <p>The method of application is a gun method.</p>			

3.2. Test results

Table 1

Number of test report and test date			Test method	Parameter			
LP-812/08			PN-EN 1366-4: 2006	integrity			thermal insulation
				cracks or openings in excess of given dimensions [min]	ignition of a cotton pad [min]	sustained flaming on the unexposed side [min]	maximum temperature rise at any point, limited to 180 °C above the initial mean temperature [min]
Seals linear joint			Results (The test was lasted 241,5 minutes)				
Type	No. of test joint	Width/ wall thickness					
Type 1a	1	10 mm/ 100 mm	-	119,5	-	-	
Type 1b	2	20 mm/ 100 mm	-	-	-	70 - thermocouple 53, 70,5 - thermocouple 54	
Type 1c	3	30 mm/ 100 mm	-	59,25	-	-	
Type 1d	14	10 mm/ 200 mm	-	-	-	-	
Type 1e	15	20 mm/ 200 mm	194,5	-	-	-	
Type 1f	16	30 mm/ 200 mm	149,5	-	-	-	

" - " means not terminated

4. Classification and field of application

4.1. Reference of classification

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2007.

4.2. Classification

Linear joint seals of company Tremco illbruck are classified according to the following combinations of performance parameters and classes as appropriate:

4.2.1. Types 1a – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 1 – joint width from to 10 mm; wall thickness - 100 mm

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

Fire resistance class: EI 90 – V – X – F – W 00 to 10

*)

4.2.2. Types 1b – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 2 – joint width from to 20 mm; wall thickness - 100 mm

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	60	60												

Fire resistance class: EI 60 – V – X – F – W 00 to 20

*)

4.2.3. Types 1c – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 3 – joint width from to 30 mm; wall thickness - 100 mm

R	E	I	W		t	t	-	M	C	S	IncSlow	sn	ef	r
	45	45												

Fire resistance class: EI 45 – V – X – F – W 00 to 30

*)

4.2.4. Types 1d – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 4 – joint width to 10 mm; wall thickness - 200 mm

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

Fire resistance class: EI 240 – V – X – F – W 00 to 10

*)

4.2.5. Types 1e – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 5 – joint width to 20 mm; wall thickness - 200 mm

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

Fire resistance class: EI 180 – V – X – F – W 00 to 20

*)

4.2.6. Types 1f – Nullifire FF 197 / FF 177 Fire rated PU FOAM in accordance with fig. 6 – joint width to 30 mm; wall thickness - 200 mm

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

Fire resistance class: EI 120 – V – X – F – W 00 to 30

*)

*) Key (p. 4.2.1 ÷ 4.2.6):

E - integrity,

I - thermal insulation,

V - orientation: vertical supporting construction – vertical joint,

X - no movement,

F - field,

W - joint widths range (in mm).

4.3. Field of application

This classification is valid for the following end use applications (PN-EN 1366-4:2006):

4.3.1. The possible orientation in accordance with p. 13.1– **B** – sealing of vertical linear joints in vertical building elements.

4.3.2. Results were obtained with autoclaved aerated concrete standard supporting constructions so, in accordance with p. 13.2 can apply to concrete, block work and masonry separating elements of minimum density equal 600 kg/m^3 and the width equal or greater than that tested, figure 1 ÷ 6 (p. 2.2).

4.3.3. Applicable only to straight parallel edge surfaces of sealing elements, figure 7.

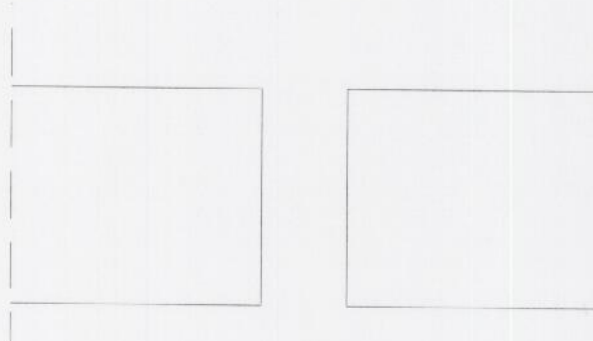


Fig. 7

4.3.4. Test results are valid only for the position in which the seal was tested.

5. Limitations

This classification given remains valid as long as:

- test method remains unchanged,
- product standard or technical approval remains unchanged,
- constructional or material modifications do not exceed limits of the field of application defined in 4.3.

This classification report has been issued in 3 copies. Additional signed copies can be issued by Fire Research Department of ITB on the request of the report's owner only.

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

SIGNED



Zofia Laskowska

APPROVED

Head of Fire Research Department



Andrzej Borowy