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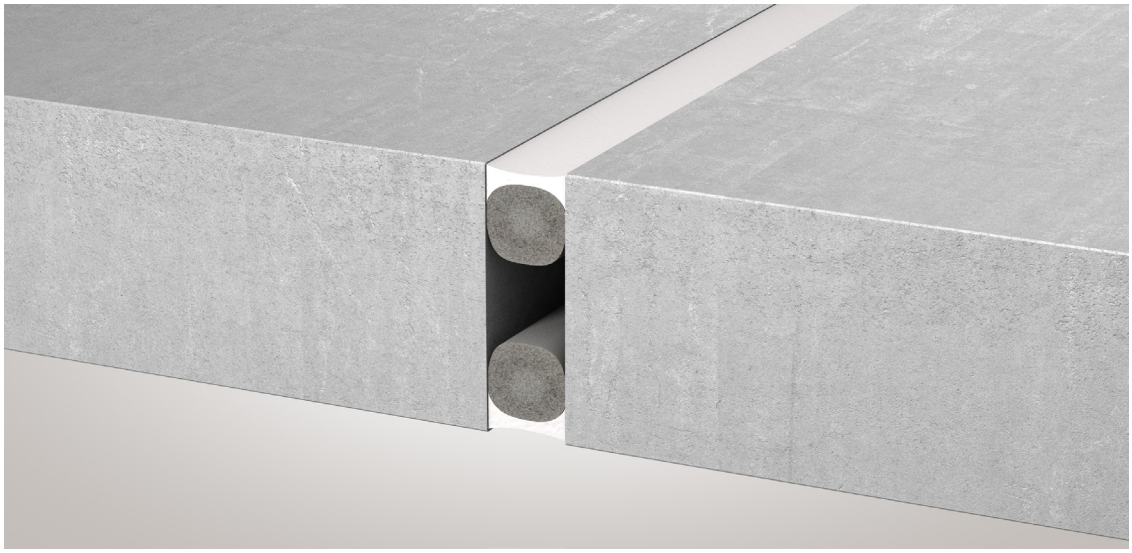

Zulassung

ISIFLEX Brandschutzsilikon
Wand / Decke
Klassifizierungsbericht nach EN 13501-2 / 2013-Efectis-R0207r

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CLASSIFICATION REPORT

Linear joints sealed with HBT-ISIFLEX-Fugensilikon Classification of the fire resistance according to EN 13501-2:2007+A1:2009

Report number	2013-Efectis-R0207r
Sponsor(s)	HBT Hochbau-Brandschutz-Technik GmbH Neue Bahnhofstraße 46 D-34621 Frielendorf Germany
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1. SUBJECT

This classification report defines the resistance to fire classification assigned to linear joint seals in an aerated concrete wall and floor construction, in accordance with the procedures given in EN 13501-2:2007+A1:2009.

2. DETAILS OF CLASSIFIED PRODUCT

2.1. GENERAL

The element, HBT type HBT-ISIFLEX-Fugensilikon sealant, is defined as a linear joint seal.

2.2. SEPARATING ELEMENT

2.2.1. Wall and floor

The standard aerated concrete wall and floor construction according to EN 1366-4, had dimensions of 1500 x 1500 x 100 mm (w x h/l x t).

2.3. LINEAR JOINT SEALS

2.3.1. Joint seals

Before applying the HBT-ISIFLEX-Fugensilikon sealant the surfaces were degreased with HBT Cleaner and primed with HBT Primer.

Four horizontal linear joints were applied in the floor, being 10, 20, 30 and 40 mm wide with a length of min. 900 mm. All joints were square filled with sealant, for example the 10 mm wide joint was 10 mm deep, the 20 mm wide joint was 20 mm deep etc., at both sides of the floor.

Behind the sealant a polyethylene backing material was applied. The surface of the sealant was smoothened with HBT Finish. The sealant had a drying period of 28 days before testing.

3. SAMPLING AND MANUFACTURING OF THE CONSTRUCTION

Table 1:

HBT GmbH	• Sealant and backing material • Applying sealant and backing material
Efectis Nederland BV Centre for Fire Safety	• Test frame • Aerated concrete wall and floor

For the execution of the fire test, the materials stated in table 2 have been sampled. The sampling form is hold on file at Efectis Nederland.

Table 2:

Material	Sampled by	Sampled for	Sampling date
HBT-ISIFLEX-Fugensilikon sealant	Efectis Nederland BV	HBT GmbH	March 12, 2013

4. TEST REPORT & TEST RESULTS IN SUPPORT OF CLASSIFICATION

4.1. TEST REPORT

Name of laboratory	Name of sponsor	Test report no.	Test method
Efectis Nederland BV, Centre for Fire Safety	HBT GmbH	2013-Efectis-R0207p 2013-Efectis-R0207q	EN 1366-4:2006+A1:2010

4.2. TEST RESULTS

Table 3: Summary of test results of wall test

Integrity, (E)		
All joint seals		
- Cotton pad	240 minutes	No failure
- Flames present longer than 10 sec.	240 minutes	No failure
Insulation, (I)		
- Max. temperature rise 10 mm joint	148 minutes	Failure
- Max. temperature rise 20 mm joint	133 minutes	Failure
- Max. temperature rise 30 mm joint	225 minutes	Failure
- Max. temperature rise 40 mm joint	240 minutes	No failure

Table 4: Summary of test results of floor test

Integrity, (E)		
All joint seals		
- Cotton pad	240 minutes	No failure
- Flames present longer than 10 sec.	240 minutes	No failure
Insulation, (I)		
- Max. temperature rise 10 mm joint	145 minutes	Failure
- Max. temperature rise 20 mm joint	125 minutes	Failure
- Max. temperature rise 30 mm joint	173 minutes	Failure
- Max. temperature rise 40 mm joint	223 minutes	Failure

5. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

5.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 7 of EN 13501-2:2007+A1:2009.

5.2. CLASSIFICATION

The fire resistance of linear joints sealed with a HBT type HBT-ISIFLEX-Fugensilikon sealant, applied in an aerated concrete wall and floor construction.

Joint width and depth (mm)	Separating element	Classification
10 mm	Wall	**EI 120 – V - X**
	Floor	**EI 120 – H – X**
20 mm	Wall	**EI 120 – V – X**
	Floor	**EI 120 – H – X**
30 mm	Wall	**EI 180 – V – X**
	Floor	**EI 120 – H – X**
40 mm	Wall	**EI 240 – V – X**
	Floor	**EI 180 – H - X**

5.3. FIELD OF APPLICATION

The results of the fire test are directly applicable to similar constructions, where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability.

5.3.1. Orientation

Test orientation 'B' is tested; a vertical linear joint in a vertical test construction and test orientation 'A'; linear joints in a horizontal test construction.

The test results apply to joints in floors, vertical joints in walls and a horizontal wall joint abutting a floor, ceiling or roof.

5.3.2. Supporting construction

The test results are valid for concrete, block work and masonry separating elements of a thickness (min. 100 mm) and density (min. 600 kg/ m^3) equal to or greater than that tested.

5.3.3. Seal position

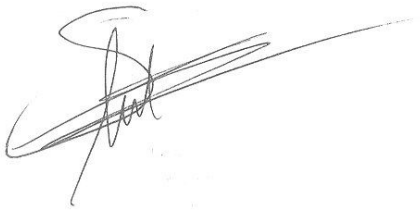
The test results are valid for the position in which the seal was tested. The seals applied at both sides of the separating element according to Figure 3, type 4 in EN 1366-4.

5.3.4. Joint width and depth

The widths of the joint are restricted to 10, 20, 30 and 40 mm, with a depth of respectively 10, 20, 30 and 40 mm.

6. LIMITATIONS

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



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7. FIGURES

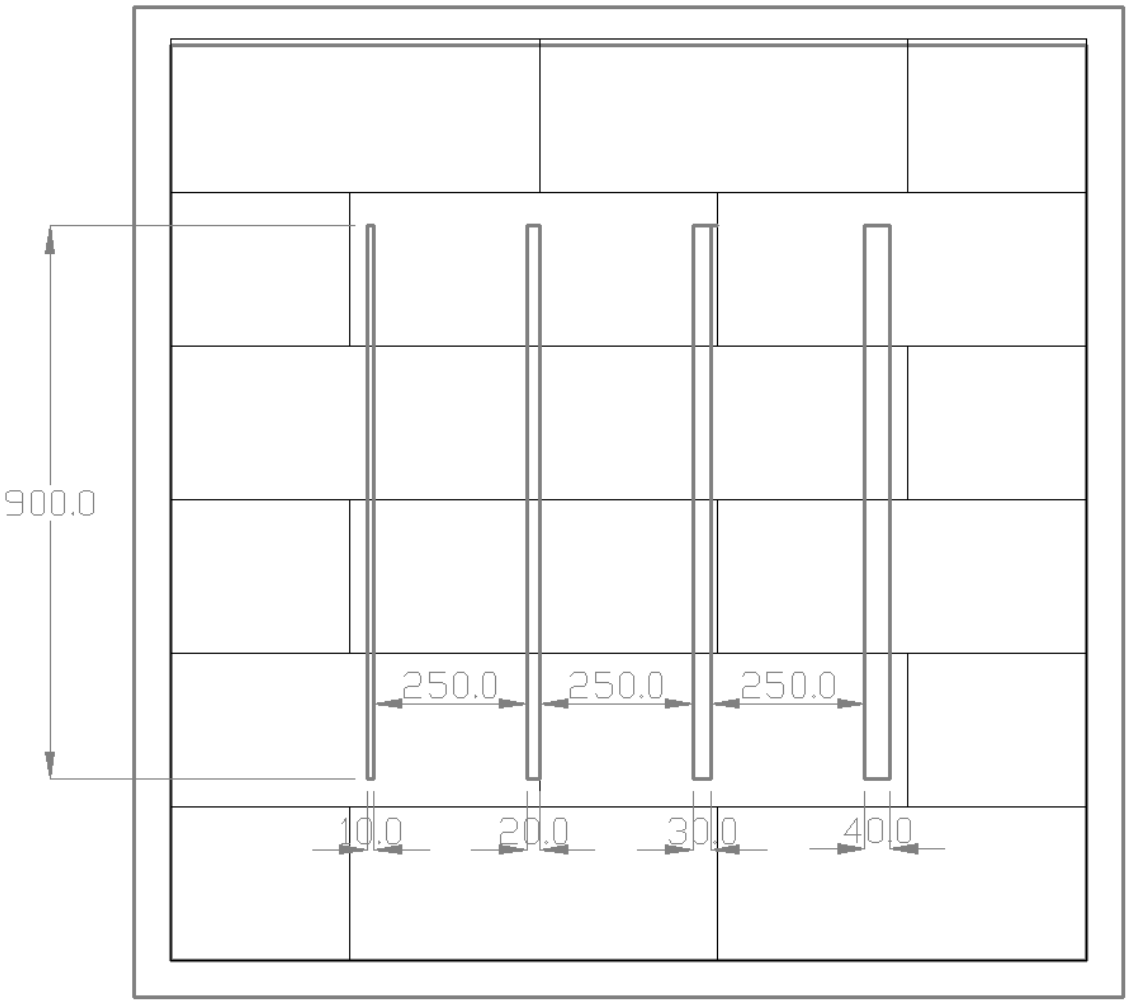

Figure 1: Detail of wall specimen

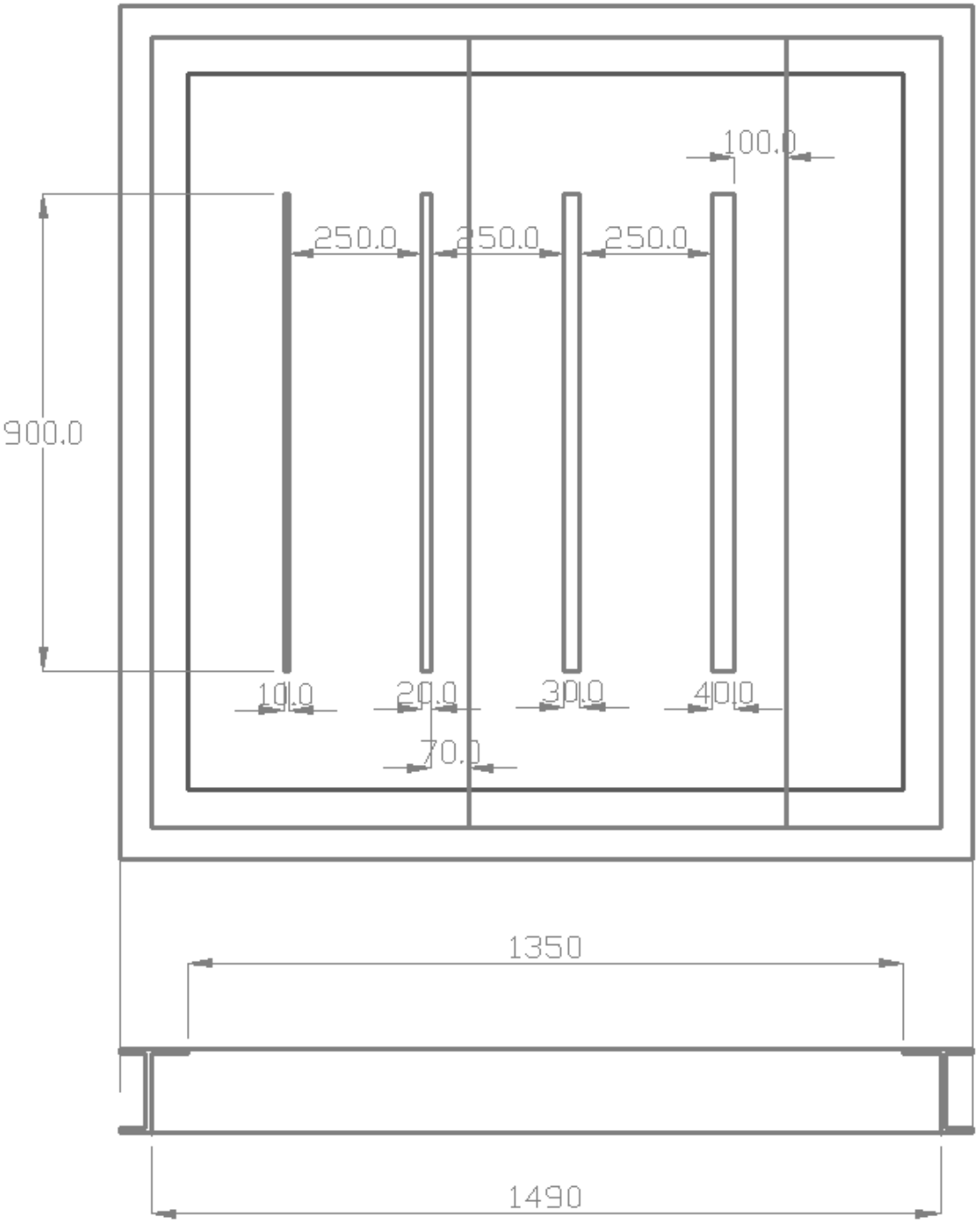

Figure 2: Detail of floor specimen