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Materialprüfungsamt Nordrhein-Westfalen
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CLASSIFICATION REPORT

on fire resistance according to EN 13501-2:2016-12 No. 232000977-KB-01

Edition No. 1

31.08.2023

Notified Body No. 0432

1st Copy

Sponsor:	Hilti Entwicklungsgesellschaft mbH Hiltistraße 6 86916 Kaufering
Date of order:	29.06.2023
Product name:	Penetration seal system „Hilti Firestop Putty Disc CFS-D 25”
Description:	Penetration seal system „Hilti Firestop Putty Disc CFS-D 25” in (Rigid floors, rigid walls and light partition walls)

The Classification refers exclusively to the building product described above. Classification reports may only be published or reproduced without the consent of the MPA NRW in their form and content.

This classification report has 5 pages and 1 annex.

1 Introduction

This classification report on fire resistance defines the classification which is assigned to the penetration seal system "Hilti Firestop Putty Disc CFS-D 25" as single penetration through walls and floors in accordance with the procedure EN 1366-3:2022-05 and DIN EN 13501-2:2016-12.

2 Details to the classified product

2.1 General

The building element belongs to the product type „Penetration seal of cables".

2.2 Description

The building element penetration seal system "Hilti Firestop Putty Disc CFS-D 25" as single penetration is described in the test reports listed in clause 3.1.

2.3 Building products

Building material classification

Building material	Manufacturer	Building material classification	Proof
„Hilti Firestop Putty Disc CFS-D 25"	Hilti AG	DIN EN 13501-1 E	Declaration of performance no. Hilti CFS-D 25 dated 08.11.21

2.4 Electrical conduits

Electrical conduits (rigid or bendable/flexible) made of PVC or polyolefin.

2.5 Cables

- Cables of all types (except core lines (wires)), optical fiber cables and coaxial cables.

3 Test reports and test results for the proof of the classification

3.1 Test reports

Name of the laboratory	Name of the sponsor	Reference No. of the reports	Test method and date
Materialprüfungsamt NRW Notified Body 0432	Hilti Entwicklungsgesellschaft mbH Hiltistraße 6 86916 Kaufering	232000862-01 dated 14.06.2023	DIN EN 1366-3: 2022-05
		232000862-02 dated 14.06.2023	

3.2 Results

Test method, number and date	**Parameter**	**Results**
DIN EN 1366-3: 2022-05 Test report no. 232000862-01		
Test on 25.01.2023	Test duration:	100 minutes
Light partition wall with: 2 cable penetration seals as single installations	Integrity: cotton pad Gap gauge Constant flame Thermal insulation:	100 minutes 100 minutes 100 minutes 100 minutes
DIN EN 1366-3: 2022-05		
Test report no. 232000862-02		
Test on 24.01.2023	Test duration:	121 minutes
Rigid wall (aerated concrete, raw density ≥ 550 kg/m³) with: 2 cable penetration seals as single installations	Integrity: cotton pad	56 to 121 minutes
	Gap gauge	121 minutes
	Constant flame	121 minutes
	Thermal insulation:	121 minutes

4 Field of application and classification

4.1 Field of application cable (electrical conduit)

Electrical conduits according to clause 2.4, with an outer diameter ≤ 25 mm and with a projection between the surface of the separating building element and the ends of the electrical conduits ≥ 10 mm (annex 1).

Cables according to section 2.5 with an outer diameter ≤ inner diameter of the electrical conduit.
The electrical conduit may be 100 % occupied/filled.

If necessary, the ends of the electrical conduits must be sealed on both sides of the wall with the "Hilti Fire-stop Putty Disc CFS-D 25" with a depth ≥ 10 mm (clause 4.3).

The distance between each penetration seal must be ≥ 100 mm.

4.2 Reference for the classification

This classification was carried out according to EN 13501-2:2016-12.

4.3 Classification

The building element penetration seal system „Hilti Firestop Putty Disc CFS-D 25" in walls and floors is classified according the following performance parameter:

4.4 Single classification of the penetration seal systems in walls and floors

Cable/ dimension in the electrical conduit	End closure of the electrical conduit	Classification		Supporting construction
		Thermal insulation and integrity	Integrity	
cable d ≤ id electrical conduit	On both sides	EI 90	E 90	wall
cable d = 14 mm	without	EI 90	E 90	wall
cable d ≤ id electrical conduit	without	EI 45	E 45	floor
cable d = 14 mm*	without	EI 90	E 90	floor

id electrical conduit: inner diameter of the electrical conduit

* cable 1 × 35 mm^2 according to Cenelec HD 603.3 (insulation and sheath material PVC, diameter range 13,2 mm to 14 mm, designation e.g. NYY-J 1x35 M or NYY-O 1x35 RM) in the electrical conduit (d = 25 mm) made of PP by "Gewiss Deutschland GmbH" type DX20025R model series FK.

5 Supporting constructions

5.1 Supporting construction wall and floor installations

The classifications apply to installation in walls and floors.

The cable/electrical conduits may only be passed through the wall or floor at right angles. The diameter of the wall or floor opening corresponds to the diameter of the electrical conduit.

The classifications apply to:

- Installation in floors made of concrete or aerated concrete with a floor thickness of ≥ 150 mm and a density of ≥ 550 kg/m³.

- Lightweight wall constructions with a thickness of 150 mm, with two board layers and a board thickness of 12.5 mm on each side of the wall and head/floor track, studs in accordance with EN 14195 with a depth of 100 mm, and with an insulation made of Rockwool Termarock 40 (at least 2 x 40 mm thick mineral fiber insulation panels, density ≥ 40 kg/m³, melting point ≥ 1000°C (DIN 4102-17), air gap between insulation and planking = 20 mm. The lightweight wall constructions must have a fire resistance class ≥ EI 90 and covered with gypsum plasterboards of type "Feuerschutzplatte Knauf Piano GKF".

- The proof may be transferred to rigid constructions (rigid wall constructions) whose total thickness is equal to or greater than the total thickness (d ≥ 150 mm) of the tested standard lightweight wall construction and whose minimum density is 350 kg/m³. When hollow brick walls are constructed, the same rules are valid with regard to the aperture framing as to lightweight wall constructions covered on both sides. For round openings, a dimensionally stable continuous sheath/pipe section made of class A1 or A2 materials in accordance with EN 13501-1 must be used.

5.2 Fastening of the „Hilti Firestop Putty Disc CFS-D 25"

The „Hilti Firestop Putty Disc CFS-D 25" is glued on walls and floors around the electrical conduit.

5.4 Fastening of cables / electrical conduits

The distance between the surface of the separating building element and the nearest support point for the lines must be ≤ 250 mm on both sides of the wall or the top of the ceiling.

The distance between the surface of the room-enclosing component and the nearest support point for the lines must be ≤ 250 mm on both sides of the wall or the top of the floor. The essential parts of the brackets must be non-flammable (DIN EN 13501-1 Class A).

6 Special information

The classification document does not constitute a type approval or certification of the product.
This classification report consists of 5 pages and 1 annex.

This classification report written in English language is issued additionally to the German classification report with the same report number. In case of doubt, the German version is solely valid.

Erwitte, 31.08.2023
On behalf

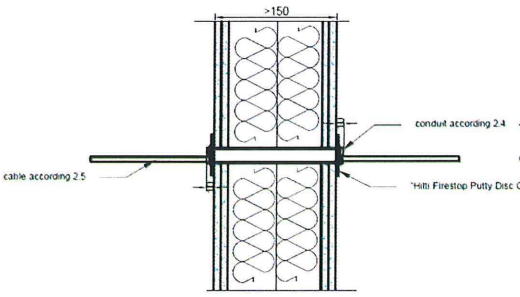
Materialprüfungsamt MPA NRW 34 Nordrhein-Westfalen

Dipl.-Ing. Frank Diekmann
(Head of the fire resistance laboratory)

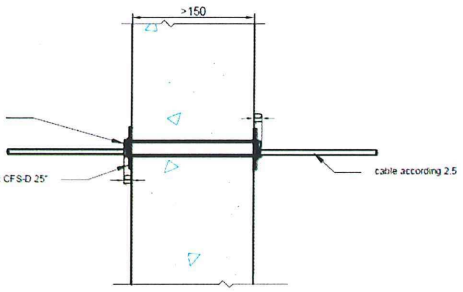
Dr. Stefan Schwahn

Classification Report No. 232000977-KB-01 **Annex 1**

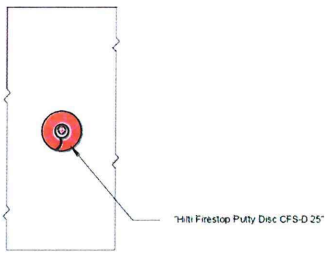
installation flexible wall



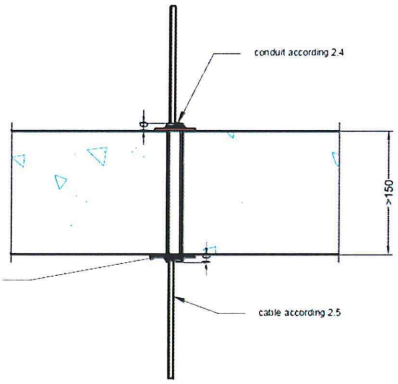
installation rigid wall



topview



installation floor concrete/areated concrete



measures in mm