



EN

# DECLARATION OF PERFORMANCE

according to Annex III of the Regulation (EU) Nr. 305/2011 (Construction Products Regulation)

## Hilti Firestop Sleeve CFS-SL

No. Hilti CFS "0843-CPD-0105"

### 1. Unique identification code of the product-type:

Hilti Firestop Sleeve CFS-SL

### 2. Intended use:

Fire Stopping and Sealing Product for Penetration Seals, see ETA-11/0153 (28.06.2013)

Cable penetrations	Cables, Cable bundles	The field of application has to comply with the content of the ETA-11/0153
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### 3. Manufacturer:

HILTI Corporation, Feldkircherstrasse 100, 9494 Schaan, Principality of Liechtenstein

### 4. System of AVCP:

System 1

### 5. European Assessment Document:

ETAG No. 026-1 and ETAG No. 026-2

### European Technical Assessment:

ETA-11/0153 (28.06.2013)

### Technical Assessment Body:

OIB Austrian Institute of Construction Engineering

### Notified body/s:

UL International (UK) Ltd, No. 0843

### 6. Declared performance:

Essential characteristic	Declared performance / Harmonised technical specification
Reaction to fire	Class E according to EN 13501-1
Resistance to fire	Resistance to fire performance and field of application in accordance with EN 13501-2. See Annex
Dangerous substances	See Annex
Durability and serviceability	Z <sub>2</sub> in accordance with EOTA Technical Report - TR024
Other	Not applicable / No performance determined

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Martin Althof  
Head of Quality  
Business Unit Chemicals  
Hilti Corporation

Schaan, March 2016

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## 2.5 Dangerous substances

According to the manufacturer's declaration, the product specification has been compared with the list of dangerous substances of the European Commission to verify that that it does not contain such substances above the acceptable limits.

A written declaration in this respect was submitted by the ETA-holder.

In addition to the specific clauses relating to dangerous substances contained in this ETA, 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 Product Directive, these requirements need also to be complied with, when and where they apply.

### A.2 Abbreviations used in drawings

Abbreviation	Description
A <sub>1</sub>	Hilti Firestop Sleeve CFS-SL
A <sub>2</sub>	Hilti Firestop Sealant CFS-S ACR
C	Services (cables)
E	Building element (wall, floor)
t <sub>E</sub>	Thickness of the building element (wall, floor); see also 1.2.1

## ANNEX C

### RESISTANCE TO FIRE CLASSIFICATION OF PENETRATIONS SEALS MADE FROM HILTI FIRESTOP SLEEVE CFS-SL

#### (1) Construction elements for use of CFS-SL S and CFS-SL M

**Flexible walls:** The wall must have a minimum thickness of 100 mm and a maximum thickness of 200 mm and comprise timber or steel studs lined on both faces with boards of an overall thickness of minimum 25 mm. For timber stud walls there must be a minimum distance of 100 mm of the seal to any stud and the cavity between stud and seal must be closed and minimum 100 mm insulation of Class A1 or A2 (in accordance with EN 13501-1) in the cavity between stud and seal.

**Rigid walls:** The wall must have a minimum thickness of 100 mm and a maximum thickness of 200 mm and comprise aerated concrete, concrete or masonry with a minimum density of 650 kg/m<sup>3</sup>.

**Rigid floors:** The floor must have a minimum thickness of 150 mm and a maximum thickness of 200 mm and comprise aerated concrete, concrete or masonry with a minimum density of 550 kg/m<sup>3</sup>.

(2) Construction elements for use of CFS-SL L

Flexible walls: The wall must have a minimum thickness of 200 mm and a maximum thickness of 300 mm and comprise timber or steel studs lined on both faces with boards of an overall thickness of minimum 25 mm. For timber stud walls there must be a minimum distance of 100 mm of the seal to any stud and the cavity between stud and seal must be closed and minimum 100 mm insulation of Class A1 or A2 (in accordance with EN 13501-1) in the cavity between stud and seal.

Rigid walls: The wall must have a minimum thickness of 200 mm and a maximum thickness of 300 mm and comprise aerated concrete, concrete or masonry with a minimum density of 650 kg/m<sup>3</sup>.

Rigid floors: The floor must have a minimum thickness of 250 mm and a maximum thickness of 300 mm and comprise aerated concrete, concrete or masonry with a minimum density of 550 kg/m<sup>3</sup>.

(3) Apertures for the penetration of sleeves require a minimum separation of 200 mm in wall constructions and of 58 mm in rigid floor constructions.

(4) The aperture diameter for the penetration of sleeves shall be between 63 and 73 mm for sleeve size "S" and between 113 and 122 mm for sleeve size "M".

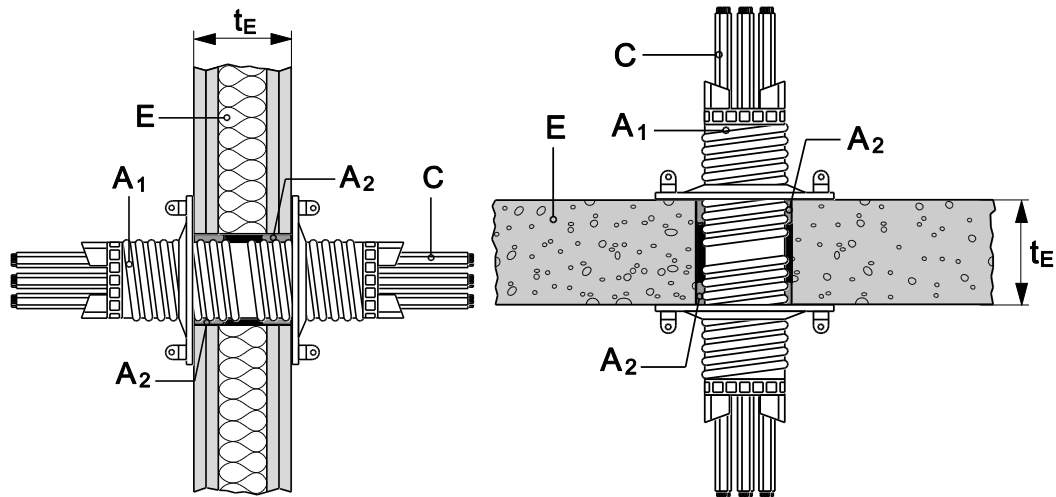
(5) Cables shall be supported at maximum 320 mm away from both faces of wall constructions and 250 mm from a floor construction.

## Flexible and rigid walls and rigid floors according to 1.2.1

### Penetration seal:

Hilti Firestop Sleeve CFS-SL ( $A_1$ ) centred in the wall and fixed by means of two flanges delivered together with the sleeve. Hilti Firestop Acrylic Sealant CFS-S ACR is used to seal the gap between opening edge and sleeve ( $A_2$ ). Opening size: CFS-SL S between 63 - 73 mm, CFS-SL M und CFS-SL L between 113 – 122 mm diameters.

### Construction details:



### Penetrating services

### Classification

#### CFS-SL S

#### CFS-SL M / L

Wall

Floor

Wall

Floor

All sheathed cable types currently and commonly used in building practice in Europe (e.g. power, control, signal, telecommunication, data, optical fibre cables with a diameter of:

C.1 Maximum  $\varnothing$  21 mm

EI 60

EI 120

EI 120

EI 120

C.2 Maximum  $\varnothing$  50 mm

-

-

EI 90

EI 120

C.3 Maximum  $\varnothing$  80 mm

-

-

EI 60

EI 60

C.4 Tied cable bundle, maximum diameter of 36 mm, maximum diameter of single cable 21 mm

EI 60

EI 120

-

-

C.5 Tied cable bundle, maximum diameter of 86 mm, maximum diameter of single cable 21 mm

-

-

EI 90

EI 120

C.6 Blank seal (no services penetrating)

EI 60

EI 120<sup>1)</sup>

EI 120<sup>2)</sup>

EI 120<sup>3)</sup>

<sup>1)</sup> If cables are added later on only cables with a diameter < 21 mm (C.1) or a tied cable bundle according to C.4 may be added if the required classification is EI 120.

<sup>2)</sup> If cables are added later on only cables with a diameter < 21 mm (C.1) may be added if the required classification is EI 120.

If the seal is used in a wall with a requirement of EI 90 cables with a diameter < 50 mm (C.2) or a tied cable bundle according to C.5 may be added later on. If the seal is used in a wall with a requirement of EI 60 or EI 30 cables with a diameter  $\leq$  80 mm (C.3) or a tied cable bundle according to C.5 may be added later on.

<sup>3)</sup> If cables are added later on only cables with a diameter  $\leq$  50 mm (C.2) or a tied cable bundle according to C.5 may be added if the required classification is EI 120 or EI 90.

If the seal is used in a floor with a requirement of EI 60, EI 45 or EI 30 cables with a diameter  $\leq$  80 mm (C.3) or a tied cable bundle according to C.5 may be added later on.