

HILTI

**Technical
Data Sheet**

Hilti Firestop Sleeve CFS-SL

European
Technical Approval
ETA N° 11/0153



Issue 09/2013

Firestop Sleeve CFS-SL

Simplifies cable management where frequent re-penetration is required



Applications

- Sealing penetrations for single cables and cable bundles
- Suitable for small to medium-sized circular openings in walls and ceilings
- For use on concrete, masonry and drywall

Advantages

- Easy to install and to inspect
- Fully functional immediately after installation
- Robust
- Optimum smoke-proofing performance
- Easy subsequent installation of additional cables
- Fire resistance rating of up to 2 hours

Technical data

	CFS-SL
Intumescent	Yes
Max. annular space	7 mm
Minimum wall thickness	100 mm
Minimum ceiling thickness	150mm
2nd component	Firestop Acrylic Sealant CFS-SACR
Reaction to fire class	E (according to EN 13501-1:2007)

The European Technical Approval (ETA) and the technical data sheet can be obtained via your local Hilti contact.

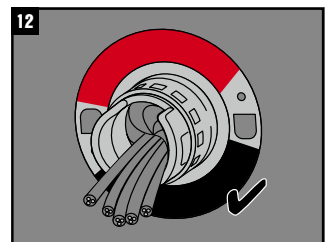
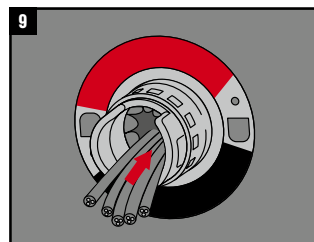
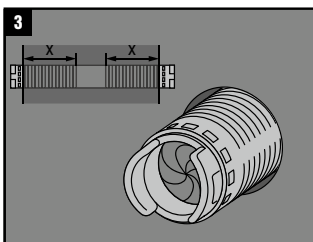
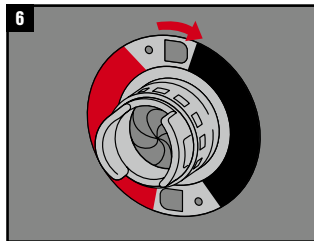
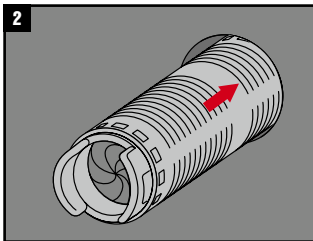
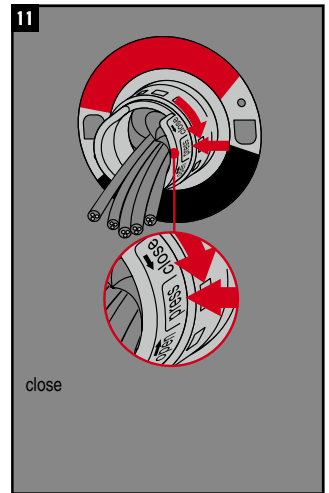
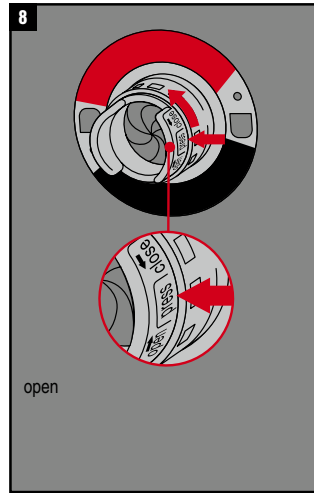
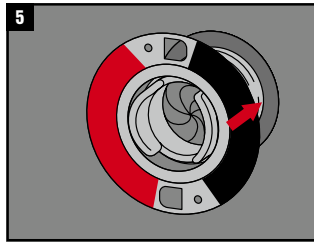
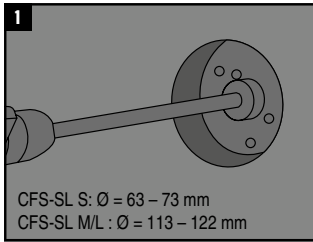
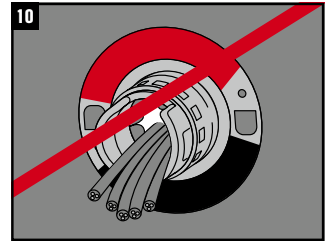
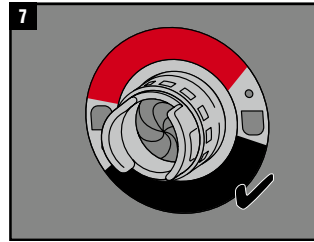
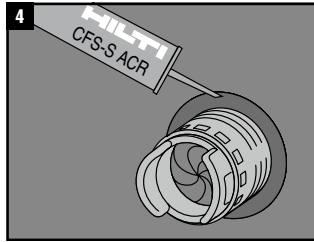
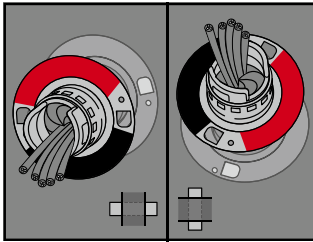
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HILTI Corporation Feldkirchstrasse 100 9494 Schaan Liechtenstein
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0843-CPD-0105
ETA-11/0153
ETAG N° 026, Part 2
Penetration Seal 'Hilti Firestop Sleeve CFS-SL' Use category: Z ₂ See ETA-11/0153 for other relevant characteristics



Ordering

Order designation	Recommended opening size	Item Number
Firestop sleeve CFS-SL S	Ø 63-73 mm	02019717
Firestop sleeve CFS-SL M	Ø 113-122 mm	02019718
Firestop sleeve CFS-SL L	Ø 113-122 mm	02075168

Installation instructions



Cable penetration

Flexible walls | Rigid walls

The intended use of the Hilti Firestop Sleeve CFS-SL is to reinstate the fire resistance performance of:

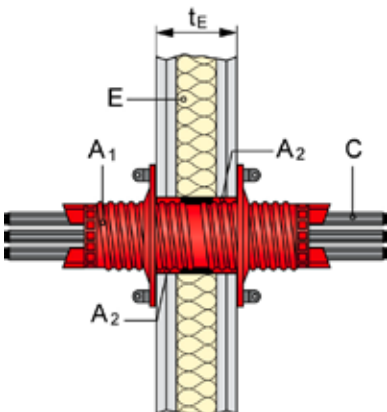
Flexible walls / drywall (E), minimum thickness 100 mm (t_E) and maximum thickness of 300 mm with timber or steel studs lined on both faces with boards of an overall thickness of minimum 25 mm. For timber stud walls there must be a minimum distance of 100 mm between the seal and any stud, and the cavity must be filled with a minimum of 100 mm insulation of Class A1 or A2 insulation in accordance with EN 13501-1.

Rigid walls (E) concrete, aerated concrete or masonry, minimum density of 650 kg/m³, minimum thickness 100 mm and a maximum thickness of 300 mm (t_E).

Penetration seal (A) / services (C)	Wall thickness (t_E) flexible or rigid wall	Classification E = integrity I = insulation	Device	Other criteria Description
All sheathed cable types ¹⁾ ≤ diameter 21 mm	≥ 100 mm – ≤ 200 mm	EI 60	CFS-SL S	The gap around the sleeve to be sealed with Hilti Firestop Acrylic Sealant CFS-S ACR on both sides of the wall (A ₂).
	≥ 200 mm – ≤ 300 mm	EI 120	CFS-SL M	
		EI 120	CFS-SL L	
All sheathed cable types ¹⁾ diameter 50 mm	≥ 100 mm – ≤ 200 mm	EI 90	CFS-SL M	
	≥ 200 mm – ≤ 300 mm	EI 90	CFS-SL L	
All sheathed cable types ¹⁾ ≤ diameter 80 mm	≥ 100 mm – ≤ 200 mm	EI 60	CFS-SL M	
	≥ 200 mm – ≤ 300 mm	EI 60	CFS-SL L	
Tied cable bundle, maximum diameter of 36 mm, maximum diameter of single cables 21 mm	≥ 100 mm – ≤ 200 mm	EI 60	CFS-SL S	
	Tied cable bundle, maximum diameter of 86 mm, maximum diameter of single cables 21 mm	≥ 100 mm – ≤ 200 mm	EI 90	
≥ 200 mm – ≤ 300 mm		EI 90	CFS-SL L	
Blank Seal ²⁾ (no services penetrating)	≥ 100 mm – ≤ 200 mm	EI 60	CFS-SL S	
		EI 120	CFS-SL M	
	≥ 200 mm – ≤ 300 mm	EI 120	CFS-SL L	

¹⁾ All sheathed cable types currently and commonly used in building practice in Europe (e.g. power, control, signal, telecommunication, data, optical fibre cables).

²⁾ If cables are added later on, for required classification see details in ETA.



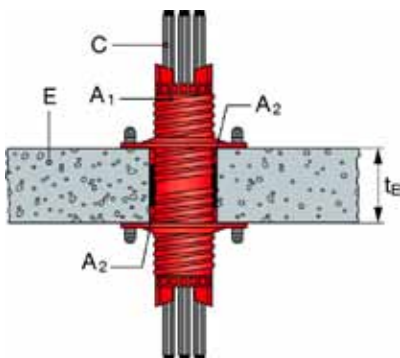
Cable penetration Floors

Hilti Firestop Sleeve CFS-SL may be used to form penetration seals (A) in rigid floors (E) comprising concrete, aerated concrete or masonry with a minimum density of 550 kg/m³ and a minimum thickness 150 mm and a maximum thickness of 300 mm (t_E).

Penetration seal (A) / services (C)	Floor thickness (t _E)	Classification E = integrity I = insulation	Device	Other criteria Description
All sheathed cable types ¹⁾ ≤ diameter 21 mm	≥ 150 mm – ≤ 200 mm	EI 120	CFS-SL S	The gap around the sleeve to be sealed with Hilti Firestop Acrylic Sealant CFS-S ACR on both sides of the floor (A ₂).
	≥ 250 mm – ≤ 300 mm	EI 120	CFS-SL M	
		EI 120	CFS-SL L	
All sheathed cable types ¹⁾ diameter 50 mm	≥ 150 mm – ≤ 200 mm	EI 120	CFS-SL M	
	≥ 250 mm – ≤ 300 mm	EI 120	CFS-SL L	
All sheathed cable types ¹⁾ ≤ diameter 80 mm	≥ 150 mm – ≤ 200 mm	EI 60	CFS-SL M	
	≥ 250 mm – ≤ 300 mm	EI 60	CFS-SL L	
Tied cable bundle, maximum diameter of 36 mm, maximum diameter of single cables 21 mm	≥ 150 mm – ≤ 200 mm	EI 120	CFS-SL S	
	Tied cable bundle, maximum diameter of 86 mm, maximum diameter of single cables 21 mm	≥ 150 mm – ≤ 200 mm	EI 120	
Blank Seal ²⁾ (no services penetrating)		≥ 150 mm – ≤ 200 mm	EI 120	CFS-SL S
	EI 120		CFS-SL M	
	≥ 250 mm – ≤ 300 mm	EI 120	CFS-SL L	

¹⁾ All sheathed cable types currently and commonly used in building practice in Europe (e.g. power, control, signal, telecommunication, data, optical fibre cables).

²⁾ If cables are added later on, for required classification see details in ETA.



Characteristics of CFS-SL

Additional attributes

Hilti Firestop products are comprehensively tested and individually tailored to the technical requirements of a building's electric installations. In addition to their superior behaviour in passive fire protection, Hilti Firestop products also meet the requirements in building technology that continue to gain significance and also help the designer and installer in meeting these additional requirements. The assessment of fitness for use has been made in accordance with EOTA ETAG N° 026 – Part 2.



Charecteristics	Assessment of charecteristics	Norm, standard, test
Health and the environment Dangereous 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. CFS-SL is in compliance concerning the registration, evaluation, authorization and restriction of Chemicals (REACH).	Material safety datasheet
Durability and servicability	Hilti Firestop Sleeve CFS-SL has been assessed for the Z ₂ use category, and the results of the tests have demonstrated suitability for penetration seals intended for use at internal conditions with humidity classes other than Z ₁ , excluding temperatures below 0°C ("internal dry conditions").	ETAG 026-2
Reaction to Fire	Class E	EN 13501-1

Service

With more than 20 years of experience worldwide, Hilti is one of the leading suppliers of firestop systems.

We actively help you manage your firestop projects better by providing:

- Quick engineering judgements
- Extensive technical literature
- On-site training and demonstration
- Sophisticated jobsite logistics
- Assurance of conformity with specific application requirements
- International network of Hilti firestop specialists

Our network of experienced sales representatives, field engineers, firestop specialists and customer service representatives is just a phone call away (use the local toll-free Hilti number).

Hilti. Outperform. Outlast.

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