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according to Article 29 of the  
Regulation (EU)  
No 305/2011 of the European  
Parliament and of the Council  
of 9 March 2011

MEMBER OF EOTA



## European Technical Assessment ETA-20/1236 of 2022/01/31

### I General Part

**Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S**

**Trade name of the construction product:**

Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal

**Product family to which the above construction product belongs:**

Internal partition kits

**Manufacturer:**

Hilti AG  
Feldkircherstraße 100  
DE-9494 Schaan  
Liechtenstein  
Internet: [www.hilti.group](http://www.hilti.group)

**Manufacturing plant:**

Hilti Plant 4a

**This European Technical Assessment contains:**

25 pages including 3 annexes which form an integral part of the document

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

EAD 210005-00-0505 Internal partition kits for use as non-loadbearing walls

**This version replaces:**

The previous ETA with the same number and issued on 2020-12-20

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## **II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT**

### **1 Technical description of the product**

The Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal consist of a galvanised steel frame with a lining of gypsum plasterboards. The joints between the plaster boards are finished with joint tape and gypsum-based joint filler. Hilti CFS-TTS E Firestop Top Track Seal is a compressible strip installed around the horizontal top track of a flexible wall. It is a U-shaped strip based on flexible polyurethane foam in a plastic foil. For details of the seal design depending on orientation, building elements forming the joint/gap or backfilling material and the related classifications see Annex 3.

For further details on Hilti CFS-TTS E Firestop Top Track Seal see Annex 1.

For a description of the installation procedure see Annex 3.

#### **Components of the Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal**

##### **Metallic profiles**

Metal framing components for drywall partitions in accordance with EN 14195. Details about dimensions are given in Annex 2.

##### **Boards**

Gypsum plasterboards in accordance with EN 520. Details about classifications and dimensions are given in Annex 2.

##### **Fixings**

Mechanical fasteners, including nails, screws and staples, intended to be used for the fixing of the framing components and gypsum plasterboard, in accordance with EN 14566. More details for specific configurations are given in Annex 2.

##### **Jointing materials**

Gypsum-based jointing materials for gypsum boards, in accordance with EN 13963.

##### **Insulation material (optional)**

Mineral wool in accordance with EN 13162. More details are given in Annex 2.

##### **Hilti CFS-TTS E Firestop Top Track Seal**

The application of Hilti CFS-TTS E Firestop Top Track Seal is to provide fire resistance performance in the area of the top track of the partition. The Hilti CFS-TTS E Firestop Top Track Seal seals the respective track which is freestanding from the vertical studs and boards of the flexible wall construction and absorb movements generated by displacements of a surrounding building construction.

### **2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)**

The Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal are foreseen to be used in:

Use category I as specified in EAD 210005-00-0505, table B1: Zones accessible primarily to those with high incentive to exercise care. Small risk of accidents occurring and of misuse. This corresponds to the Area category as specified in Eurocode 1 EN 1991-1-1:2002 of A - Areas for domestic and residential activities, and B – Office areas

Use category II as specified in EAD 210005-00-0505, table B1: Zones accessible primarily to those with some incentive to exercise care. Some risk of accidents occurring and of misuse. This corresponds to the Area category as specified in Eurocode 1 EN 1991-1-1:2002 of A - Areas for domestic and residential activities, and B – Office areas

More details about the intended use can be found in Appendix 2.

The partitions are to be installed between rigid floors and ceilings. The floors must have a minimum thickness of 100 mm and comprise concrete with a minimum density of 2400 kg/m<sup>3</sup>.

The provisions made in this European Technical Assessment are based on an assumed working life of the Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal of 25 years, provided that the Drywall partitions using Hilti CFS-TTS E Firestop Top Track Seal are subject to appropriate use and maintenance. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the Technical Assessment Body but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

Characteristic	Assessment of characteristic										
<b>3.2 Safety in case of fire (BWR 2)</b>											
Reaction to fire	<p>The components of the Hilti CFS-TTS E Firestop Top Track Seal classified in accordance with EN 13501-1, and Commission Delegated Regulation 2016/364 as given below:</p> <table border="1"> <thead> <tr> <th>Component</th> <th>Class</th> </tr> </thead> <tbody> <tr> <td>Hilti CFS-TTS E Firestop Top Track Seal</td> <td><b>E</b></td> </tr> <tr> <td>Metal framing components</td> <td><b>A1</b></td> </tr> <tr> <td>Gypsum plasterboard lining</td> <td><b>A2-s1, d0</b></td> </tr> <tr> <td>The (optional) mineral wool insulation material</td> <td><b>Must be: A2-s3, d2</b></td> </tr> </tbody> </table>	Component	Class	Hilti CFS-TTS E Firestop Top Track Seal	<b>E</b>	Metal framing components	<b>A1</b>	Gypsum plasterboard lining	<b>A2-s1, d0</b>	The (optional) mineral wool insulation material	<b>Must be: A2-s3, d2</b>
Component	Class										
Hilti CFS-TTS E Firestop Top Track Seal	<b>E</b>										
Metal framing components	<b>A1</b>										
Gypsum plasterboard lining	<b>A2-s1, d0</b>										
The (optional) mineral wool insulation material	<b>Must be: A2-s3, d2</b>										
Resistance to fire	See Annex 2										
<b>3.3 Hygiene, health and the environment (BWR 3)</b>											
Content, emission and/or release of dangerous substances*	<table border="1"> <thead> <tr> <th></th> <th>3 d [mg/m<sup>3</sup>]</th> <th>28 d [mg/m<sup>3</sup>]</th> </tr> </thead> <tbody> <tr> <td>Sum of VOC</td> <td>≤ 10</td> <td>≤ 1</td> </tr> <tr> <td>Sum of SVOC</td> <td>-</td> <td>≤ 0,1</td> </tr> </tbody> </table>		3 d [mg/m <sup>3</sup> ]	28 d [mg/m <sup>3</sup> ]	Sum of VOC	≤ 10	≤ 1	Sum of SVOC	-	≤ 0,1	
	3 d [mg/m <sup>3</sup> ]	28 d [mg/m <sup>3</sup> ]									
Sum of VOC	≤ 10	≤ 1									
Sum of SVOC	-	≤ 0,1									
Water vapour permeability	No performance assessed										
<b>3.4 Safety and accessibility in use (BWR 4)</b>											
Sill height	Not relevant										
Resistance to damage and functional failure from horizontal loads	Use category II – see Annex 2										
Resistance to damage and functional failure from eccentric vertical loads	Loading category, A - see Annex 2										
Resistance to horizontal linear static loads	No performance assessed										
Resistance to functional failure from point loads parallel or perpendicular to the surface	No performance assessed										
Rigidity of partitions to be used as substrate for ceramic tiling	No performance assessed										
Safety against personal injuries by contact	No sharp and cutting edges. No risk of abrasion or cutting people by nature of surfaces										

Characteristic	Assessment of characteristic
Resistance to deterioration caused by:	
Physical agents	No performance assessed
Chemical agents	
Biological agents	<p><u>Fungal growth after 28days:</u></p> <p>Incomplete Agar medium – No growth apparent under the microscope</p> <p>Complete Agar medium – Growth visible to the naked eye, covering up to 25% of the surface</p>

### 3.5 Protection against noise (BWR 5)

Airborne sound insulation

Configuration	$R_{w(C;Ctr)}$ [dB]
Wall construction with 100 mm C-studs and 50 mm mineral wool infill	62 (-2;-5)
Wall construction with double 50 mm CW-studs and 2 x 50 mm mineral wool infill	63 (-1;-4)

Sound absorption

### 3.6 Energy economy and heat retention (BWR 6)

Thermal resistance

No performance assessed

Thermal inertia

No performance assessed

\*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, 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 Products Regulation, these requirements need also to be complied with, when and where they apply

#### **4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base**

According to the decision 98/0213/EC of the European Commission, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) as regards internal partition kits for use as non-loadbearing walls the system 3 of Assessment and Verification of Constancy of Performance applies as a minimum. The manufacturer has designated that system 1 of Assessment and Verification of Constancy of Performance shall be applied.

#### **5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark A/S prior to CE marking

Issued in Copenhagen on 2022-01-31 by



Thomas Bruun

Managing Director, ETA-Danmark

## **ANNEX A**

### **DESCRIPTION OF THE PRODUCT COMPONENT HILTI CFS-TTS E FIRESTOP TOP TRACK SEAL**

#### **A.1 Hilti CFS-TTS E Firestop Top Track Seal**

Hilti CFS-TTS E Firestop Top Track Seal is supplied in lengths packed in cardboard boxes.

CFS-TTS E is available in 50 (E5), 62 (E6), 74 (E6) and 95 (E9) mm in width fitting to different steel track sizes. For double stud installation CFS-TTS ES is used which correspond to E with tear line in the mid of back and two strips of adhesion ribbon at the inner edges of the back to ease installation on track (see also Annex C, picture 1).

A detailed specification of the product is contained in document "Identification / Product Specification relating to the European Technical Assessment ETA-21/0754 - Hilti CFS-TTS E Firestop Top Track Seal" which is a non-public part of this ETA.

The Control Plan is defined in document "Control Plan related to the European Technical Assessment ETA-2021/0754 Hilti CFS-TTS E Firestop Top Track Seal" which is a non-public part of this ETA.

1907/2006 (REACH) with its amendment Regulation (EC) No. 830/2015

#### **A.2 Technical product literature**

Technical Data Sheet Hilti CFS-TTS E Firestop Top Track Seal



## ANNEX B

### RESISTANCE TO FIRE CLASSIFICATION AND USE CATEGORIES FOR DRYWALL PARTITIONS USING HILTI CFS-TTS E FIRESTOP TOP TRACK SEAL

#### B 1. Specific characteristics for floor / ceiling base material

Rigid floors: The solid floor/ceiling (E) must have a minimum thickness  $t_E \geq 100$  mm and comprise of concrete with a density of about  $2400 \text{ kg/m}^3$ .

#### B 1.1. Standard flexible wall construction – Type 1

The wall is constructed according EN 1363-1:2012 with 12,5 mm thick plaster boards (DF – EN 502) and qualified metal parts (U, C Profile – measurements: side/ width/ thickness).

The constructions described up to EI 60 can be used with a flexible or rigid floor/ceiling construction. Ratings > EI 60 are to be set-up with solid floor/ceiling as specified in B 1.

#### B 1.2. Specific flexible wall construction – Type 2

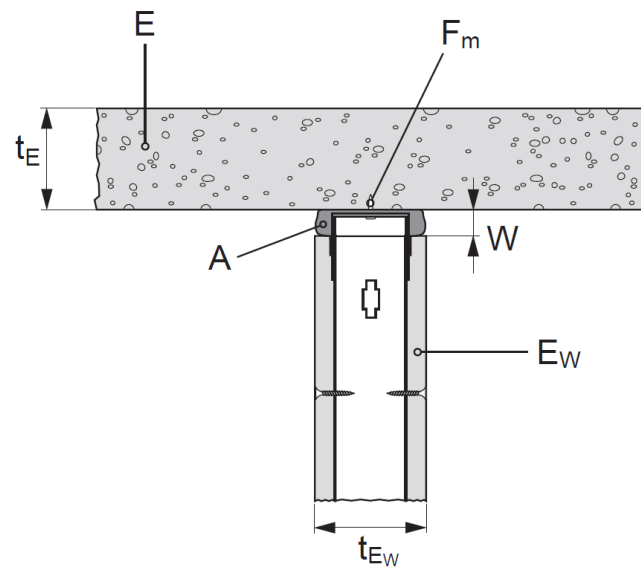
The floor/ceiling properties are as specified in B 1. The wall is to set-up according drawings of the specific construction – see relevant chapter.

#### B 2. Top of wall seal - installation specifics

Hilti CFS-TTS E Firestop Top Track Seal is applied on the topside on dry walls. It is placed on the upper horizontal U-profile, along the entire width of the wall. The (gypsum plasterboard) lining is fixed onto the vertical studs, compressing (a minimum) of 14 mm of the Hilti CFS-TTS E Firestop Top Track Seal, leaving a gap of maximum 25 mm width depending on movement indication. The gap will accommodate the incidental movement of the ceiling relative to the wall.

Nominal gap width (W): up to 25 mm;

Generalised construction details:



A = Hilti Fire Stop Product CFS-TTS E

E = ceiling; concrete according Annex B1

E<sub>w</sub> = flexible wall according Annex B 1.1 or B 1.2

F<sub>m</sub> = Material/anchors to fix track to concrete ceiling (see specific application)

t<sub>E</sub> = thickness of concrete slab

W = maximal joint width

Stud and top track flanges are overlapping but are not fixed to each other.

Splices by CFS-TTS E pieces are allowed. At each splice a compression should be considered corresponding to an extra length of CFS-TTS E of 13 mm/3 m (see also Annex C, picture 2, 4)



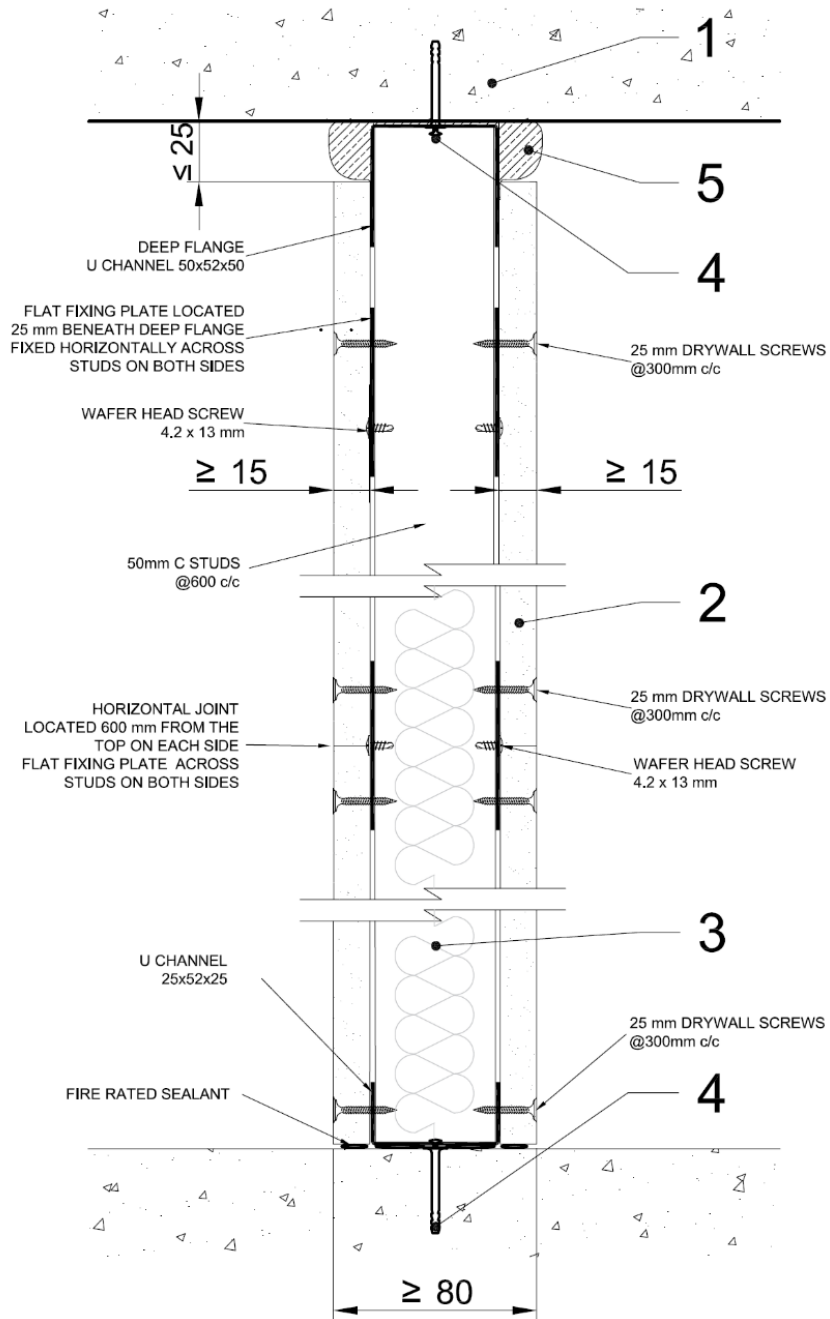
1	Base material top track	flexible or rigid
2	Wall construction	<ul style="list-style-type: none"> <li>- classified in accordance with EN 13501-2</li> <li>- total thickness min. 75 mm</li> <li>- wall lining min. 1 x 12,5 mm each side, according EN 520 classified DF type boards</li> <li>- metal U frame, top profiles. <math>\geq 40/50/0,6</math> mm</li> <li>- metal U frame, bottom profiles. <math>\geq 40/50/0,6</math> mm</li> <li>- metal C frame, profiles. <math>\geq 6/50/0,6</math> mm</li> </ul> <p>Overlapping top track/stud: <math>\geq 15</math> mm</p>
3	Insulation	optional
4	Fixing	nail plug/anchors or Hilti DX/GX/BX nail; c/c 600 mm
5	CFS-TTS E Firestop Top Track Seal	

## B 3.1.2. Classification

Drywall partition, single plastered with CFS-TTS E top track seal	
Gap width	$\leq 25$ mm
Classification	EI 45 EW 60 / E60
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A

B 3.2. Single plastered walls - EI 60

B 3.2.1. Wall construction- Type 2



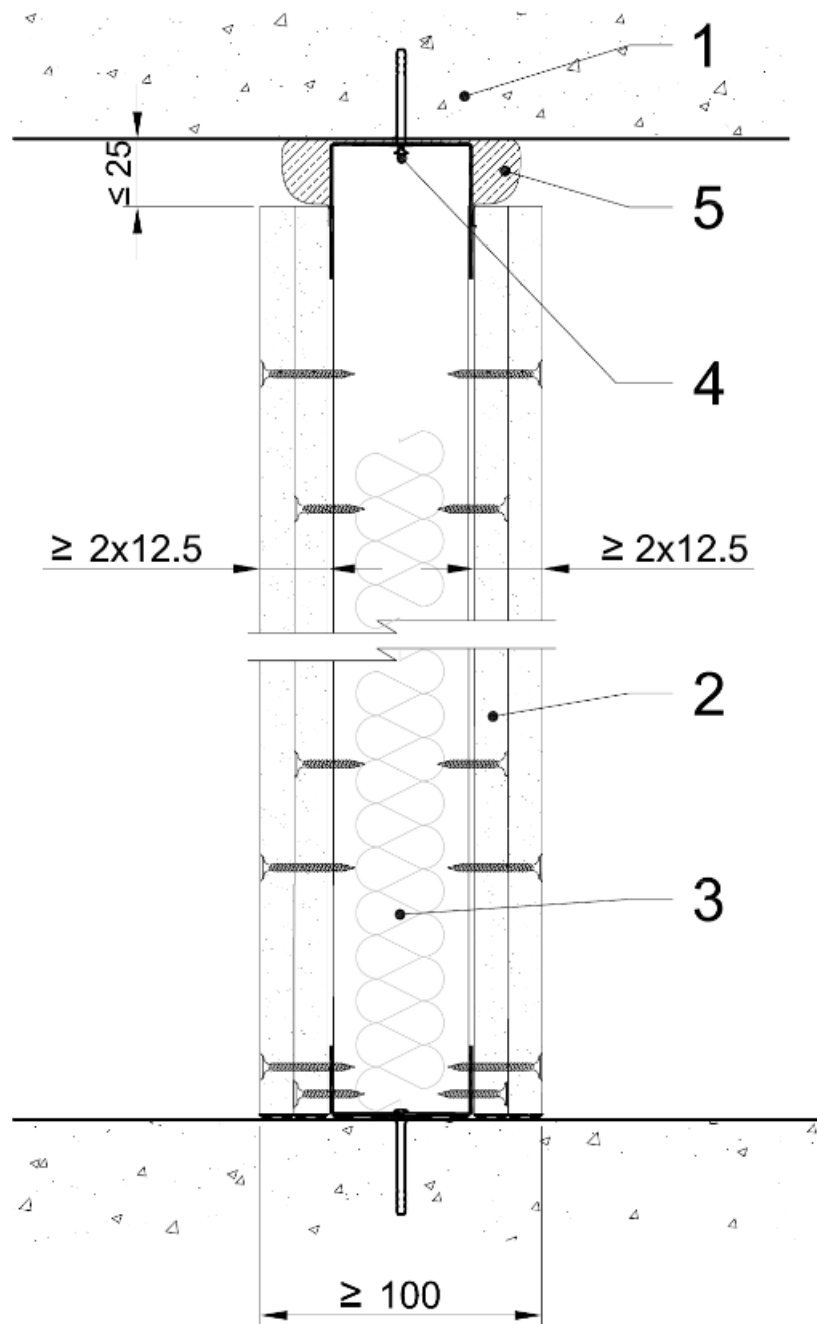
1	Base material top track	Concrete
2	Wall construction	<ul style="list-style-type: none"> <li>- classified in accordance with EN 13501-2</li> <li>- total thickness min. 80 mm</li> <li>- wall lining min. 1 x 15 mm each side; according EN 520 classified DF type boards</li> <li>- metal top U frame (top track), profiles. <math>\geq 50/52/0,55</math> mm</li> <li>- metal bottom U frame profile <math>\geq 25/52/0,55</math></li> <li>- metal C frame, profiles. <math>\geq 35/50/0,55</math> mm</li> </ul> <p>Overlapping top track/stud: <math>\geq 15</math> mm</p>
3	Insulation	optional
4	Fixing	nailable plug/anchors or Hilti DX/GX/BX nail
5	CFS-TTS E Firestop Top Track Seal	

### B 3.2.2. Classification

Drywall partition, single plastered with CFS-TTS E top track seal	
Gap width	$\leq 25$ mm
Wall height	4 m
Classification	EI 60 EW 60 / E60
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A

B 3.3. Double plastered walls - EI60

B 3.3.1. Wall construction - Type 1



1	Base material top track	flexible or rigid
2	Wall construction	<ul style="list-style-type: none"> <li>- classified in accordance with EN 13501-2</li> <li>- total thickness min. 75 mm</li> <li>- wall lining min. 2 x 12,5 mm each side, according EN 520 classified DF type boards</li> <li>- metal U frame, top profiles. <math>\geq 40/50/0,6</math> mm</li> <li>- metal U frame, bottom profiles. <math>\geq 40/50/0,6</math> mm</li> <li>- metal C frame, profiles. <math>\geq 6/50/0,6</math> mm</li> </ul> <p>Overlapping top track/stud: <math>\geq 15</math> mm</p>
3	Insulation	optional
4	Fixing	nail plug/anchors or Hilti DX/GX/BX nail; c/c 600 mm
5	CFS-TTS E Firestop Top Track Seal	

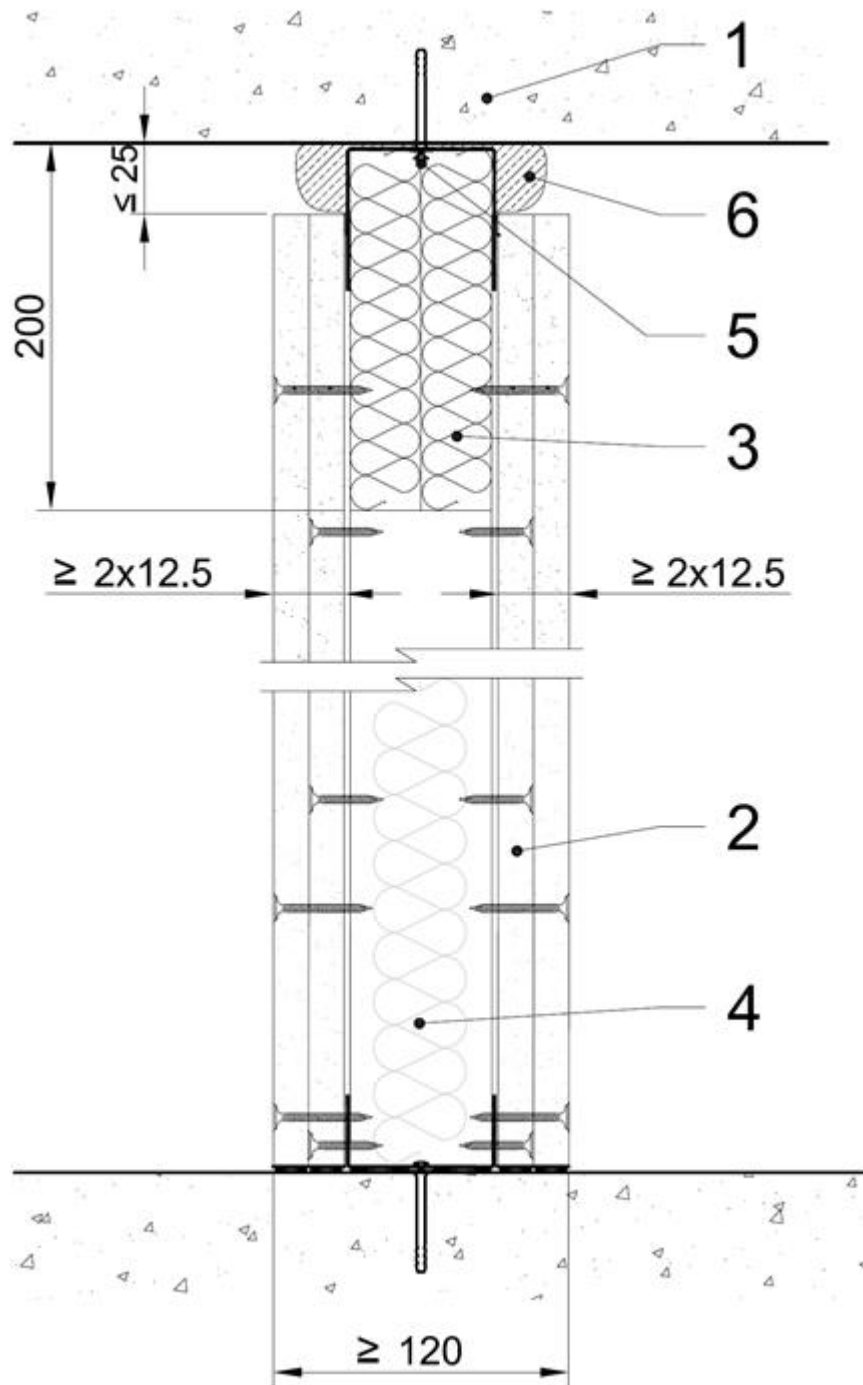
## B 3.3.2. Classification

Drywall partition, single plastered with CFS-TTS E top track seal	
Gap width	$\leq 25$ mm
Classification	EI 60 EW 90 / E90
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A



B 3.4. Double plastered walls - EI90

B 3.4.1. Wall construction - Type 1



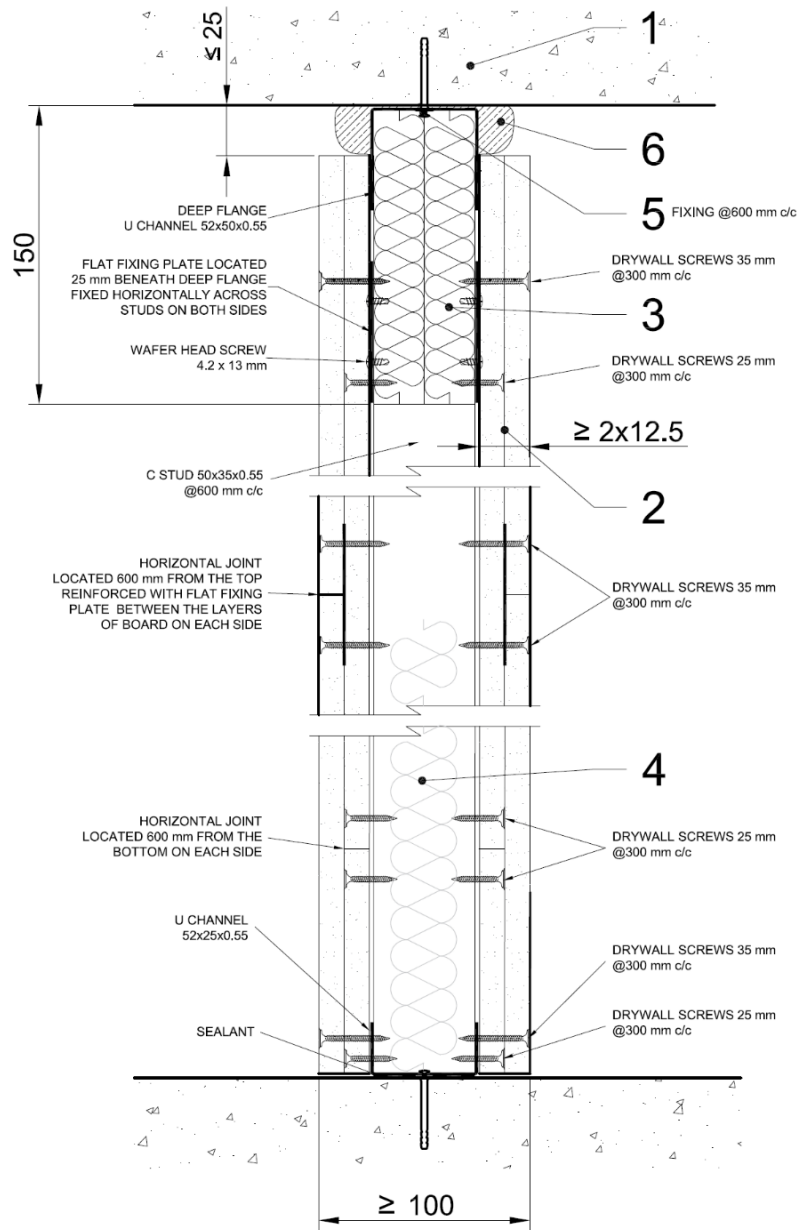
1	Base material top track	rigid, Concrete
2	Wall construction	- classified in accordance with EN 13501-2
		- total thickness min. 120 mm
		- wall lining min. 2 x 12,5 mm each side, according EN 520 classified DF type boards
		- metal U frame, top profiles. $\geq 40/70/0,6$ mm
		- metal U frame, bottom profiles. $\geq 50/70/0,6$ mm
		- metal C frame, profiles. $\geq 40/70/0,6$ mm
		Overlapping top track/stud: $\geq 15$ mm
3	Top Track Insulation	- stone wool, density $\geq 100$ kg/m <sup>3</sup> , thickness 50 mm, 2 layers - position: at the top of flexible wall, inside the top track over a height of 200 mm at the entire length of the wall. - fixing: clamped between the c-profiles and supported by underlaying c-profiles screwed to wall studs.
4	Acoustic insulation	optional
5	Fixing	nailable plug/anchors or Hilti DX/GX/BX nail; c/c 600 mm
6	CFS-TTS E Firestop Top Track Seal	

## B 3.4.2. Classification

Drywall partition, single plastered with CFS-TTS E top track seal	
Gap width	$\leq 25$ mm
Classification	EI 90 EW 120 / E120
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A

B 3.5. Double plastered walls / single stud- EI 120

B 3.5.1. Wall construction - Type 2



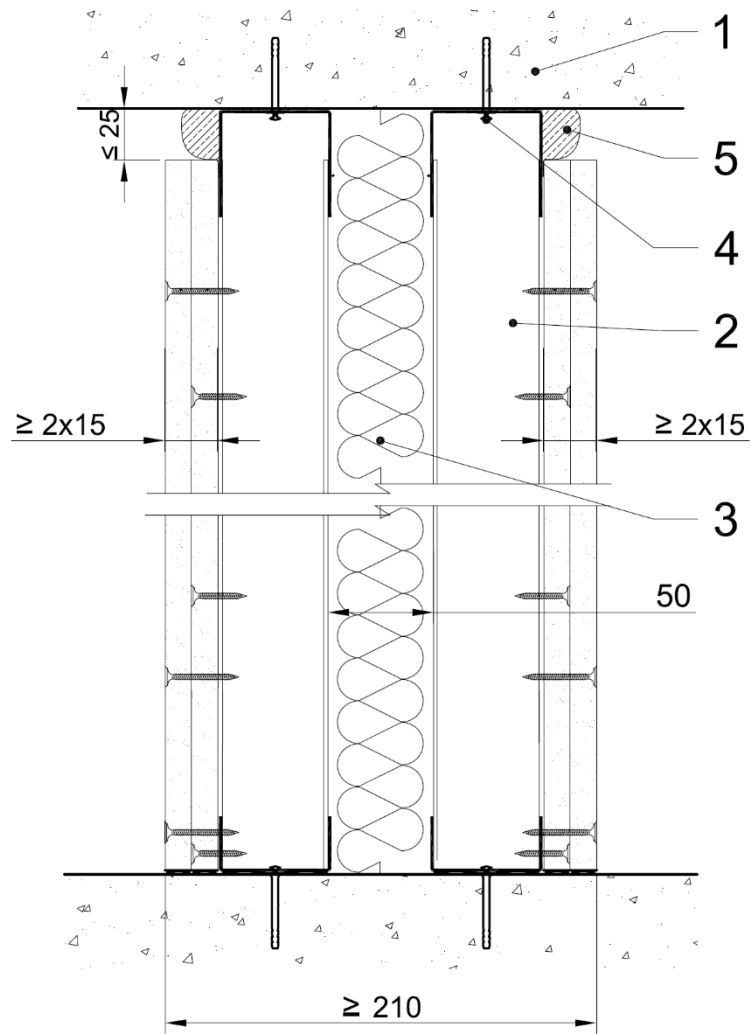
1	Base material top track	Concrete
2	Wall construction	<ul style="list-style-type: none"> <li>- classified in accordance with EN 13501-2</li> <li>- total thickness min. 100 mm</li> <li>- wall lining min. 2 x 12,5 mm each side</li> <li>- metal top U frame (top track), profiles. <math>\geq 50/52/0,55</math> mm</li> <li>- metal bottom U frame profile <math>\geq 25/52/0,55</math></li> <li>- metal C frame, profiles. <math>\geq 35/50/0,55</math> mm</li> </ul> <p>Overlapping top track/stud: <math>\geq 15</math> mm</p>
3	Top Track insulation	- stone wool, density $\geq 60$ kg/m <sup>3</sup> , thickness 50 mm, 2 layers
		- position: at the top of flexible wall, inside the top track over a height of 150 mm at the entire length of the wall.
		- fixing: friction fitted between top U-profile, the C-profiles and between the first fixing plate.
4	Acoustic insulation	optional
5	Fixing	nailable plug/anchors or Hilti DX/GX/BX nail
6	CFS-TTS E Firestop Top Track Seal	

### B 3.5.2. Classification

Drywall partition, double plastered with CFS-TTS E top track seal	
Gap width	$\leq 25$ mm
Wall height	4 m
Classification	EI 120 EW 120 / E 120
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A

B 3.6. Double stud and double plastered walls (EI 120)

B 3.6.1. Wall construction - Type 1

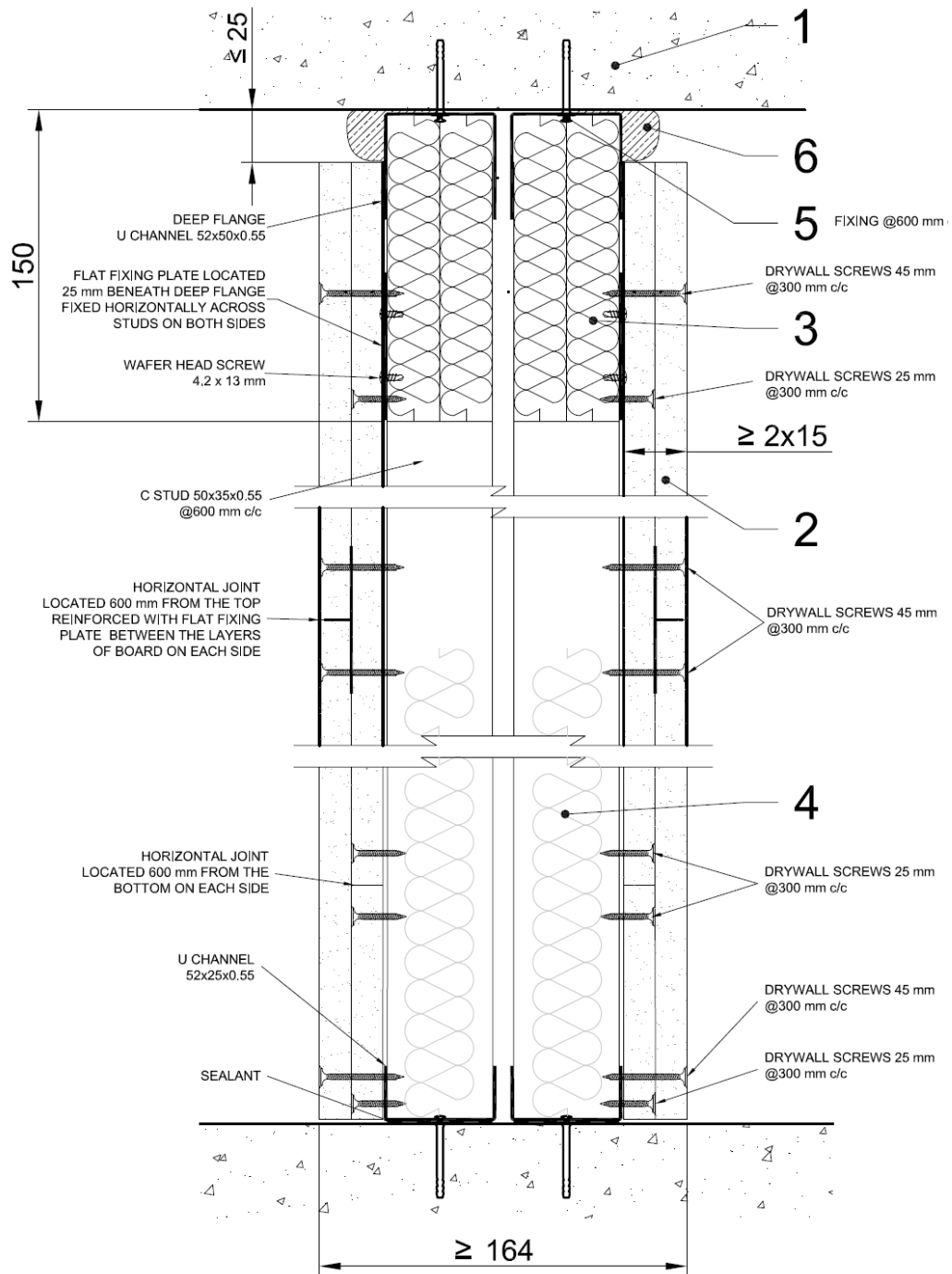


1	Base material top track	rigid, Concrete
2	Wall construction	- classified in accordance with EN 13501-2
		- total thickness $\geq 210$ mm
		- wall lining min. 2 x 15 mm each side, according EN 520 classified DF type boards
		- metal U frame, top profiles. $\geq 60/50/0,6$ mm
		- metal U frame, bottom profiles. $\geq 40/50/0,6$ mm
		- metal C frame, profiles. $\geq 50/50/0,6$ mm
		Overlapping top track/stud: $\geq 35$ mm
3	Wall Insulation	- stone wool, density $\geq 45$ kg/m <sup>3</sup> , thickness 50 mm, 2 layers - position: symmetric between the two studs, filling inside of the complete wall. - fixing: clamped between the c-profiles.
4	Fixing	Nail plug/anchors or Hilti DX/GX/BX nail; c/c 600 mm
5	CFS-TTS E Firestop Top Track Seal	

## B 3.6.2. Classification

Drywall partition, twin stud, double plastered with CFS-TTS E top track seal (half on each outer side)	
Gap width	$\leq 25$ mm
Classification	EI 120 EW 120 / E120
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A

B 3.6.3. Wall construction - Type 2



1	Base material top track	Concrete
2	Wall construction	<ul style="list-style-type: none"> <li>- classified in accordance with EN 13501-2</li> <li>- total thickness min. 164 mm</li> <li>- wall lining min. 2 x 15 mm each side, qualified boards</li> <li>- double metal stud frame, profiles min. 50 mm / distance to each other <math>\geq 4</math> mm</li> <li>- metal top U frame (top track), profiles. <math>\geq 50/52/0,55</math> mm</li> <li>- metal bottom U frame profile <math>\geq 25/52/0,55</math></li> <li>- metal C frame, profiles. <math>\geq 35/50/0,55</math> mm</li> </ul> <p>Overlapping top track/stud: <math>\geq 15</math> mm</p>
3	Top Track Insulation	- stone wool, density $\geq 60$ kg/m <sup>3</sup> , thickness 50 mm, 2 layers
		- position: at the top of flexible wall, inside the top track over a height of 150 mm at the entire length of the wall.
		- fixing: friction fitted between top U-profile, the C-profiles and between the first fixing plate.
4	Insulation	optional
5	Fixing	nailable plug/anchors or Hilti DX/GX/BX nail
6	CFS-TTS E Firestop Top Track Seal	

#### B 3.6.4. Classification

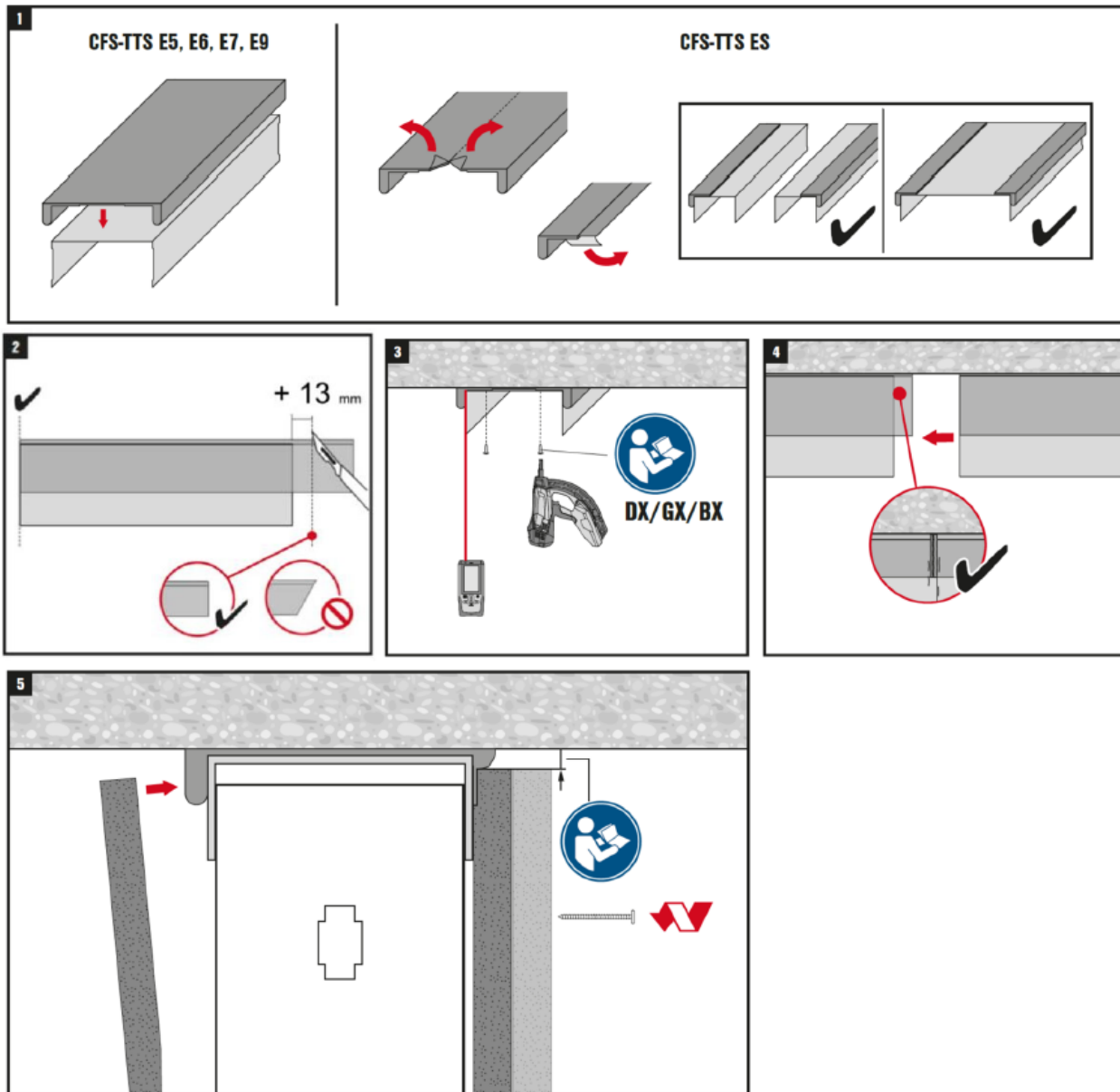
Drywall partition, twin stud, double plastered with CFS-TTS E top track seal (half on each outer side)	
Gap width	$\leq 25$ mm
Wall height	4 m
Classification	EI 120 EW 120 / E 120
Use category (EAD 21005-00-0505 (Table 6))	Use Category I/II
Resistance to structural damage from eccentric vertical load (Table 7)	Loading Category, A



## ANNEX C

### INSTALLATION OF THE PRODUCT AND ANCILLARY PRODUCT(S)

Installation of the Hilti CFS-TTS E Firestop Top Track Seal should be conducted as follows:



Hilti CFS-TTS E Firestop Top Track Seal	Annex C
Installation	