



ETA-Danmark A/S  
Göteborg Plads 1  
DK-2150 Nordhavn  
Tel. +45 72 24 59 00  
Internet [www.etadanmark.dk](http://www.etadanmark.dk)

Authorised and notified  
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-20/1066 of 2020/12/11

### 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:**

fischer FFC Firestop Collar

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

Fire Stopping, Fire Sealing & Fire Protective Products.  
Fire Retardant Products

**Manufacturer:**

fischerwerke GmbH & Co. KG  
Klaus-Fischer-Straße 1  
72178 Waldachtal  
Germany

**Manufacturing plant:**

fischerwerke GmbH & Co. KG

**This European Technical Assessment contains:**

19 pages including 1 annex 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 350454-00-1104 Firestopping and fire sealing products, Penetration Seals, Issued September 2017

**This version replaces:**

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## 1 Technical Description of the Product

- 1) fischer FFC Firestop Collar is installed round combustible pipes to form a penetration seal used to reinstate the fire resistance performance of wall and floor constructions, where they have been provided with apertures for the penetration of combustible pipe services.
- 2) fischer FFC Firestop Collar include an intumescent component incorporated into a mild steel case to close any gaps and joints and provide a closure of combustible pipes when heated and to prevent the passage of fire.
- 3) fischer FFC Firestop Collar are supplied in assembled form, without fixings. The collar is wrapped around the pipe at the soffit or both faces of walls, depending on application. Fixing specifications are detailed in Annex A.
- 4) fischer FFC Firestop Collar can be used with FiAM Intumescent Acoustic Mastic to seal the space between the combustible pipe and the aperture to close gap sizes as specified in Annex A.

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

The intended use of fischer FFC Firestop Collar is to reinstate the fire resistance performance of rigid and flexible The intended use of fischer FFC Firestop Collar is to reinstate the fire resistance performance of wall and floor constructions, where they are penetrated by various combustible pipe services.

The specific elements of construction that the system fischer FFC Firestop Collar may be used is as follows:

Flexible walls:	The wall must have a minimum thickness of 100 mm and comprise timber or steel studs line on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, no part of the penetration seal shall be closer than 100mm to a stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1, is provided within the cavity between the penetration seal and the stud.
Rigid walls:	The wall must have a minimum thickness of 100 mm and comprise of concrete, aerated concrete or masonry, with a minimum density of 650 km/m <sup>3</sup> .
Rigid floor:	The floor must have a minimum thickness of 150 mm and comprise of concrete, aerated concrete or masonry, with a minimum density of 650 km/m <sup>3</sup> .

- 1) The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.
- 2) The system fischer FFC Firestop Collar may be used to provide a penetration seal with specific combustible pipes, single only (for details see Annex A).
- 3) Apertures in the separating element shall be maximum 10 mm diameter oversize with respect to the pipe diameter. The remaining annular space/gap shall be infilled with fischer FFC Firestop Collar. Apertures for the penetration of pipes shall be separated by a minimum of 200 mm.
- 4) The provisions made in this European Technical Assessment are based on an assumed working life of the fischer FFC Firestop Collar of 10 years, 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.

- 5) Services in walls shall be supported at maximum 400mm from the face of the separating element for walls, and 400mm above the surface of the floor.

**Use Category**

Type X: Intended for use in conditions exposed to weathering.

### 3 Performance of The Product And References To The Methods Used For Its Assessment

Characteristic	Assessment of characteristic
<b>BWR 2 Safety in case of fire</b>	
Reaction to fire	See clause 1.1
Resistance to fire	See clause 1.2
<b>BWR 3 Hygiene, Health and the Environment</b>	
Release of dangerous substances	See clause 2.1
<b>BWR 4 Safety in use</b>	
Durability and serviceability	See clause 3.1
<b>BWR 5 Protection against noise</b>	
<b>BWR 6 Energy, Economy and Heat Retention</b>	
<b>BWR 7 Sustainable use of natural resources</b>	

#### 3.1 Safety in case of fire

##### 3.1.1 Reaction to fire

fischer FFC Firestop Collar is classified **E** in accordance with EN 13501-1

##### 3.1.2 Resistance to fire

See Annex A

#### 3.2 Hygiene, Health and the Environment.

##### 3.2.1 Release of dangerous substance

Category IA1, S/W3 Declaration of manufacturer

The applicant have presented a declaration that fischer FFC Firestop Collar release no dangerous substances in compliance with Council Directive 67/548/EEC of 1st June 2015 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations (incl. All amendments and adaptations).

The manufacturer declares that the product contains no dangerous substances according to current European and National regulations.

The applicant has submitted a written declaration that the product and/or constituents of the product contains no substances which have been classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No. 1272/2008 and listed in the 'indicative list on dangerous substances' of the EGDS – taking into account the installation conditions of the construction product and the release scenarios resulting from there.

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.

The use category of fischer FFC Firestop Collar in relation to BWR 3 (Hygiene, health and environment) is IA1, S/W3.

In addition to the specific clauses relating to dangerous substances contained in this European technical approval, 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.

### **3.3 Safety and accessibility in use**

#### **3.3.1 Durability**

fischer FFC Firestop Collar has been tested in accordance with EOTA Technical Report - TR024 – Edition November 2006, Fire Stopping and Fire Sealing Products-Penetration Seals for the type X, environmental conditions: Products for penetration seals intended for outdoor use exposed to weathering – rain, UV, high temperatures, frost and frost-thaw in winter.

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

According to the decision 1999/454/EC of the European Commission the system of assessment and verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) given in the following table apply:

<b>Products</b>	<b>Intended use/s</b>	<b>AVCP System</b>
Fire stopping and fire sealing products	For fire compartmentation and/or fire protection or fire performance	System 1

#### 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 2020-12-11 by



Thomas Bruun

Managing Director, ETA-Danmark

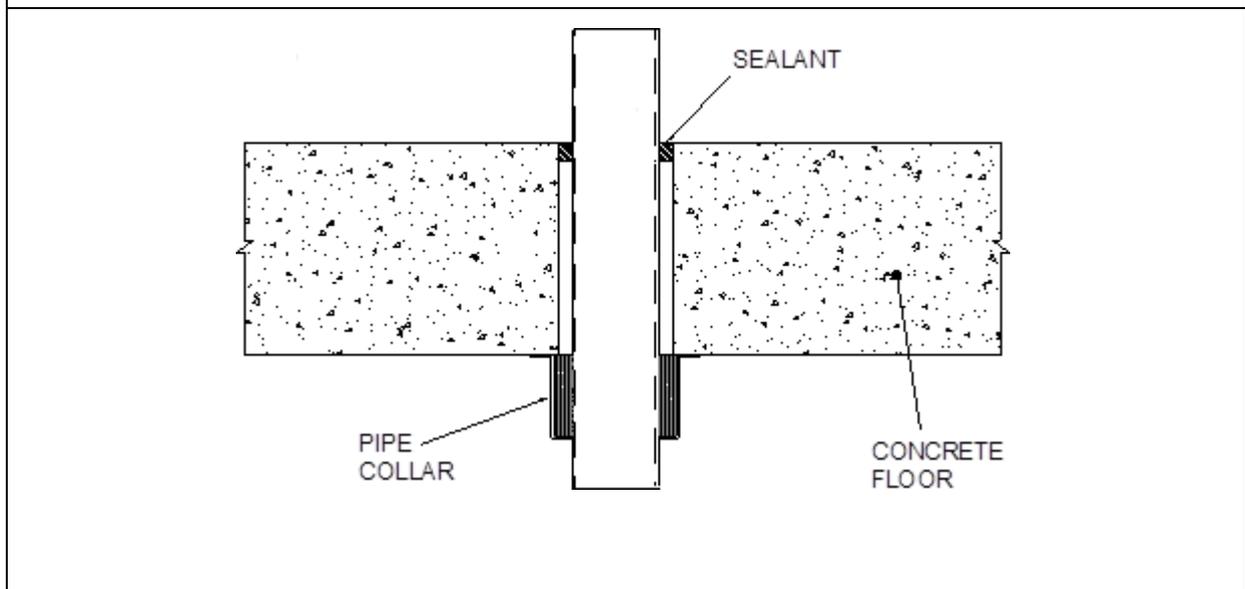
## Annex A

### Resistance to Fire Classification of fischer FFC Firestop Collar

#### A.1 Floor construction with thickness of minimum 150 mm

##### A.1.1 Penetration seal with fischer FFC Firestop Collar installed on the underside of rigid floor

Construction details: Combustible pipes installed with a single fischer FFC Firestop Collar to the underside. Maximum 10 mm annular space filled with fischer FiAM Intumescent Acoustic Mastic.



### A.1.1.1 PVC-U pipes with fischer FFC Firestop Collar installed on the underside of rigid floor

PVC-U pipes according to EN 1452 with fischer FFC Firestop Collar .

<b>Fischer FFC Firestop Collar , Face Fixed on the Underside of Rigid Floor (min 150 mm thick) PVC-U Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PVC Pipe 32 mm ø 1.8 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Face fixed on the underside of rigid floor with 3No. fischer FSA Ø8 x 60mm long, with M6 hexagon head bolts	<b>EI 240 U/C</b>
PVC Pipe 40 mm ø 1.8 mm wall thickness	40 mm				
PVC Pipe 50 mm ø 1.8 mm wall thickness	50 mm				
PVC Pipe 55 mm ø 2.3- 3.0 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PVC Pipe 63 mm ø 2.3-3.0 mm wall thickness	63 mm				
PVC Pipe 75 mm ø 3.1-4.8 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PVC Pipe 82 mm ø 3.1-4.8 mm wall thickness	82 mm				
PVC Pipe 90 mm ø 4.2-7.4 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PVC Pipe 100 mm ø 4.2-7.4 mm wall thickness	100 mm				
PVC Pipe 110 mm ø 4.2-7.4 mm wall thickness	110 mm				
PVC Pipe 125 mm ø 6.0 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PVC Pipe 140 mm ø 6.1-7.5 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PVC Pipe 160 mm ø 6.2-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

### A.1.1.2 PP pipes with fischer FFC Firestop Collar installed on the underside of rigid floor

PP pipes according to EN 1451 with fischer FFC Firestop Collar

<b>Fischer FFC Firestop Collar Face Fixed on the Underside of Rigid Floor (min 150 mm thick) PE Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PE Pipe 32 mm $\varnothing$ 2.9 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Face fixed on the underside of rigid floor with 3No. fischer FSA $\varnothing$ 8 x 60mm long, with M6 hexagon head bolts	<b>EI 240 U/C</b>
PE Pipe 40 mm $\varnothing$ 2.9 mm wall thickness	40 mm				
PE Pipe 50 mm $\varnothing$ 2.9 mm wall thickness	50 mm				
PE Pipe 55 mm $\varnothing$ 2.9-4.4 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PE Pipe 63 mm $\varnothing$ 2.9-4.4 mm wall thickness	63 mm				
PE Pipe 75 mm $\varnothing$ 2.8-6.7 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PE Pipe 82 mm $\varnothing$ 2.8-6.7 mm wall thickness	82 mm				
PE Pipe 90 mm $\varnothing$ 2.7-10.0 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PE Pipe 100 mm $\varnothing$ 2.7-10.0 mm wall thickness	100 mm				
PE Pipe 110 mm $\varnothing$ 2.7-10.0 mm wall thickness	110 mm				
PE Pipe 125 mm $\varnothing$ 3.1 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PE Pipe 140 mm $\varnothing$ 3.9-5.8 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PE Pipe 160 mm $\varnothing$ 4.9-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

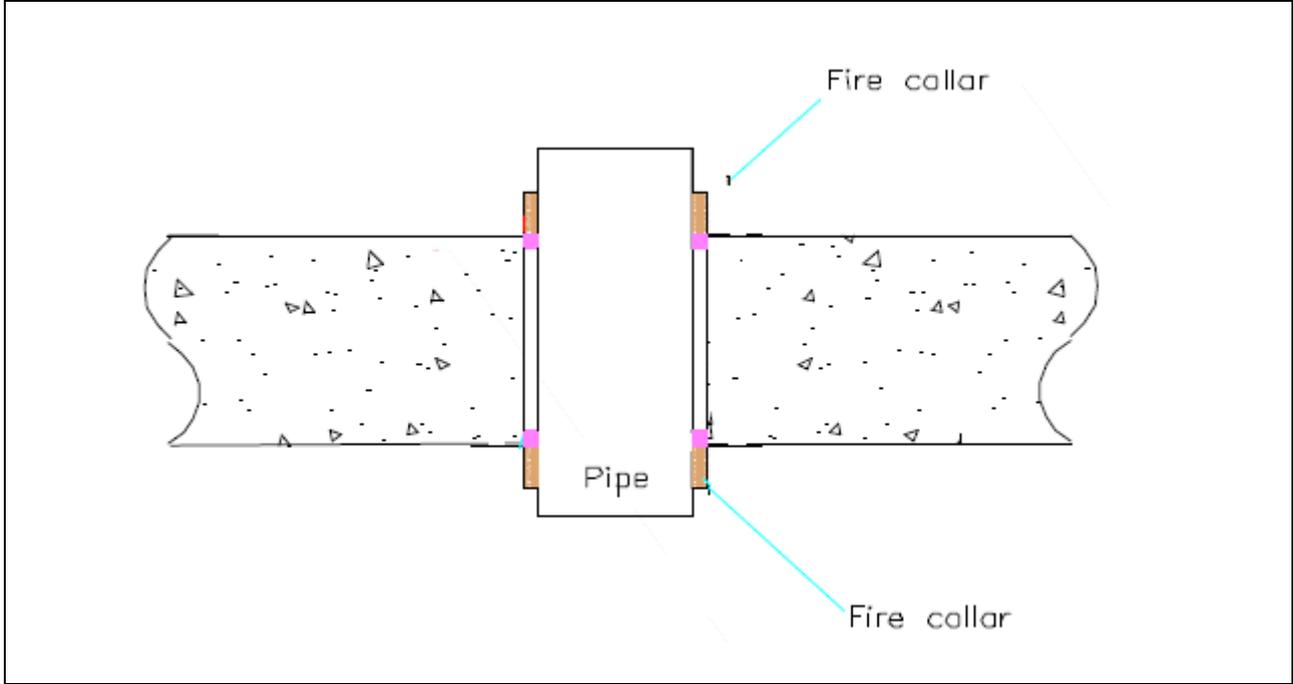
### A1.1.3 PE pipes with fischer FFC Firestop Collar installed on the underside of rigid floor

PE pipes according to EN ISO 15494 with fischer FFC Firestop Collar

fischer FFC Firestop Collar , Face Fixed on the Underside of Rigid Floor (min 150 mm thick) PE Pipes					
Penetration Specification	Collar Reference	Intumescent Material	Annulus Space (mm)	Collar Fixing	Classification
PE Pipe 32 mm $\varnothing$ 2.9 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Face fixed on the underside of rigid floor with 3No. Fischer FSA $\varnothing$ 8 x 60mm long, with M6 hexagon head bolts	<b>EI 240 U/C</b>
PE Pipe 40 mm $\varnothing$ 2.9 mm wall thickness	40 mm				
PE Pipe 50 mm $\varnothing$ 2.9 mm wall thickness	50 mm				
PE Pipe 55 mm $\varnothing$ 2.9-4.4 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PE Pipe 63 mm $\varnothing$ 2.9-4.4 mm wall thickness	63 mm				
PE Pipe 75 mm $\varnothing$ 2.8-6.7 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PE Pipe 82 mm $\varnothing$ 2.8-6.7 mm wall thickness	82 mm				
PE Pipe 90 mm $\varnothing$ 2.7-10.0 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PE Pipe 100 mm $\varnothing$ 2.7-10.0 mm wall thickness	100 mm				
PE Pipe 110 mm $\varnothing$ 2.7-10.0 mm wall thickness	110 mm				
PE Pipe 125 mm $\varnothing$ 3.1 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PE Pipe 140 mm $\varnothing$ 3.9-5.8 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PE Pipe 160 mm $\varnothing$ 4.9-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

### A.1.2 Penetration seal with fischer FFC Firestop Collar installed on both sides of rigid floor

Construction details: Combustible pipes installed with a single fischer FFC Firestop Collar to both sides. Maximum 10 mm annular space filled with fischer FiAM Intumescent Acoustic Mastic.



#### A.1.2.1 Penetration seal with fischer FFC Firestop Collar installed on both sides of rigid floor

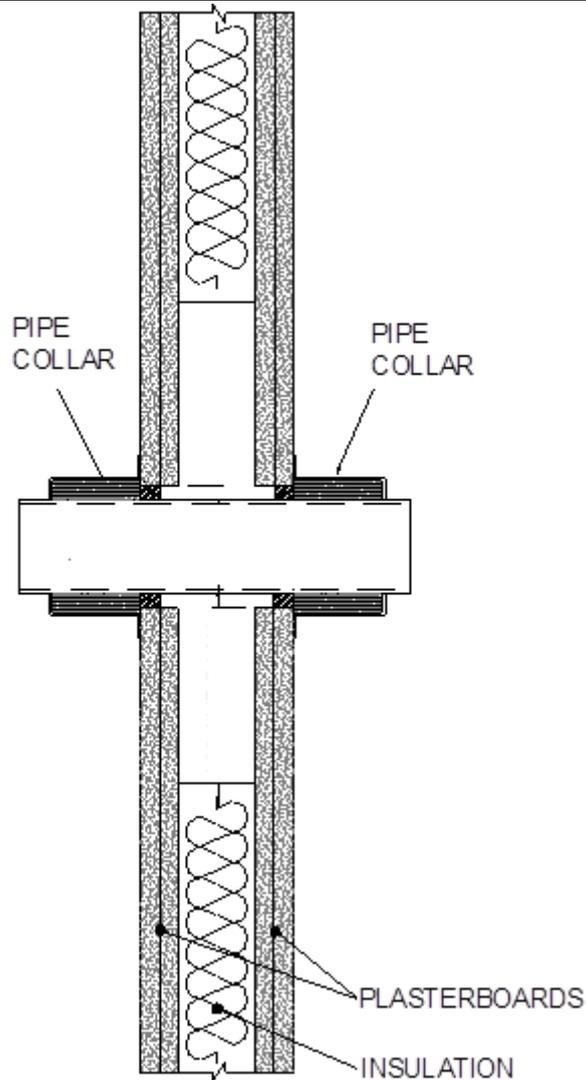
PP pipes according to EN 1451 with Fischer FFC Firestop Collar .

fischer FFC Firestop Collar , Face Fixed on Both Sides of Rigid Floor (min 150 mm thick) PP Pipes					
Penetration Specification	Collar Reference	Intumescent Material	Annulus Space (mm)	Collar Fixing	Classification
PP Pipe 110 mm $\varnothing$ 2.7 mm wall thickness	110 mm	30 mm (W) x 10 mm (T)	10	Fixed on both faces of rigid floor with 3No. fischer FSA $\varnothing$ 8 x 60mm long, with M6 hexagon head bolts	EI 120 U/U
PP Pipe 160 mm $\varnothing$ 4.0 mm wall thickness	160 mm	40 mm (W) x 16 mm (T)			EI 120 C/U

## A.2 Wall construction with thickness of minimum 100 mm

### A.2.1 Penetration seal with fischer FFC Firestop Collar installed on both sides of flexible or rigid wall

Construction details: Combustible pipes installed with a single fischer FFC Firestop Collar to both sides. Maximum 10 mm annular space filled with fischer FiAM Intumescent Acoustic Mastic.



### A.2.1.1 PVC-U pipes with Fischer FFC Firestop Collar installed on both sides of flexible or rigid wall

PVC-U pipes according to EN 1452 with Fischer FFC Firestop Collar.

<b>fischer FFC Firestop Collar , Face Fixed on Both Sides of Flexible or Rigid Wall (min 100 mm thick) PVC-U Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PVC Pipe 32 mm $\varnothing$ 1.8 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Fixed on both sides of the wall with a 6mm x 65mm long fischer HM 6x65 S, steel toggle anchor	<b>EI 120 U/C</b>
PVC Pipe 40 mm $\varnothing$ 1.8 mm wall thickness	40 mm				
PVC Pipe 50 mm $\varnothing$ 1.8 mm wall thickness	50 mm				
PVC Pipe 55 mm $\varnothing$ 2.3- 3.0 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PVC Pipe 63 mm $\varnothing$ 2.3-3.0 mm wall thickness	63 mm				
PVC Pipe 75 mm $\varnothing$ 3.1-4.8 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PVC Pipe 82 mm $\varnothing$ 3.1-4.8 mm wall thickness	82 mm				
PVC Pipe 90 mm $\varnothing$ 4.2-7.4 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PVC Pipe 100 mm $\varnothing$ 4.2-7.4 mm wall thickness	100 mm				
PVC Pipe 110 mm $\varnothing$ 4.2-7.4 mm wall thickness	110 mm				
PVC Pipe 125 mm $\varnothing$ 6.0 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PVC Pipe 140 mm $\varnothing$ 6.1-7.5 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PVC Pipe 160 mm $\varnothing$ 6.2-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

### A.2.1.2 PP pipes with Fischer FFC Firestop Collar installed on both sides of flexible or rigid wall

PP pipes according to EN 1451 with Fischer FFC Firestop Collar .

<b>fischer FFC Firestop Collar , Face Fixed on Both Sides of Flexible or Rigid Wall (min 100 mm thick) PVC-U Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PVC Pipe 32 mm ø 1.8 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Fixed on both sides of the wall with a 6mm x 65mm long fischer HM 6x65 S, steel toggle anchor	<b>EI 120 U/C</b>
PVC Pipe 40 mm ø 1.8 mm wall thickness	40 mm				
PVC Pipe 50 mm ø 1.8mm wall thickness	50 mm				
PVC Pipe 55 mm ø 2.3-3.0 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PVC Pipe 63 mm ø 2.3-3.0 mm wall thickness	63 mm				
PVC Pipe 75 mm ø 3.1-4.8 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PVC Pipe 82 mm ø 3.1-4.8 mm wall thickness	82 mm				
PVC Pipe 90 mm ø 4.2-7.4 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PVC Pipe 100 mm ø 4.2-7.4 mm wall thickness	100 mm				
PVC Pipe 110 mm ø 4.2-7.4 mm wall thickness	110 mm				
PVC Pipe 125 mm ø 6.0 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PVC Pipe 140 mm ø 6.1-7.5 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PVC Pipe 160 mm ø 6.2-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

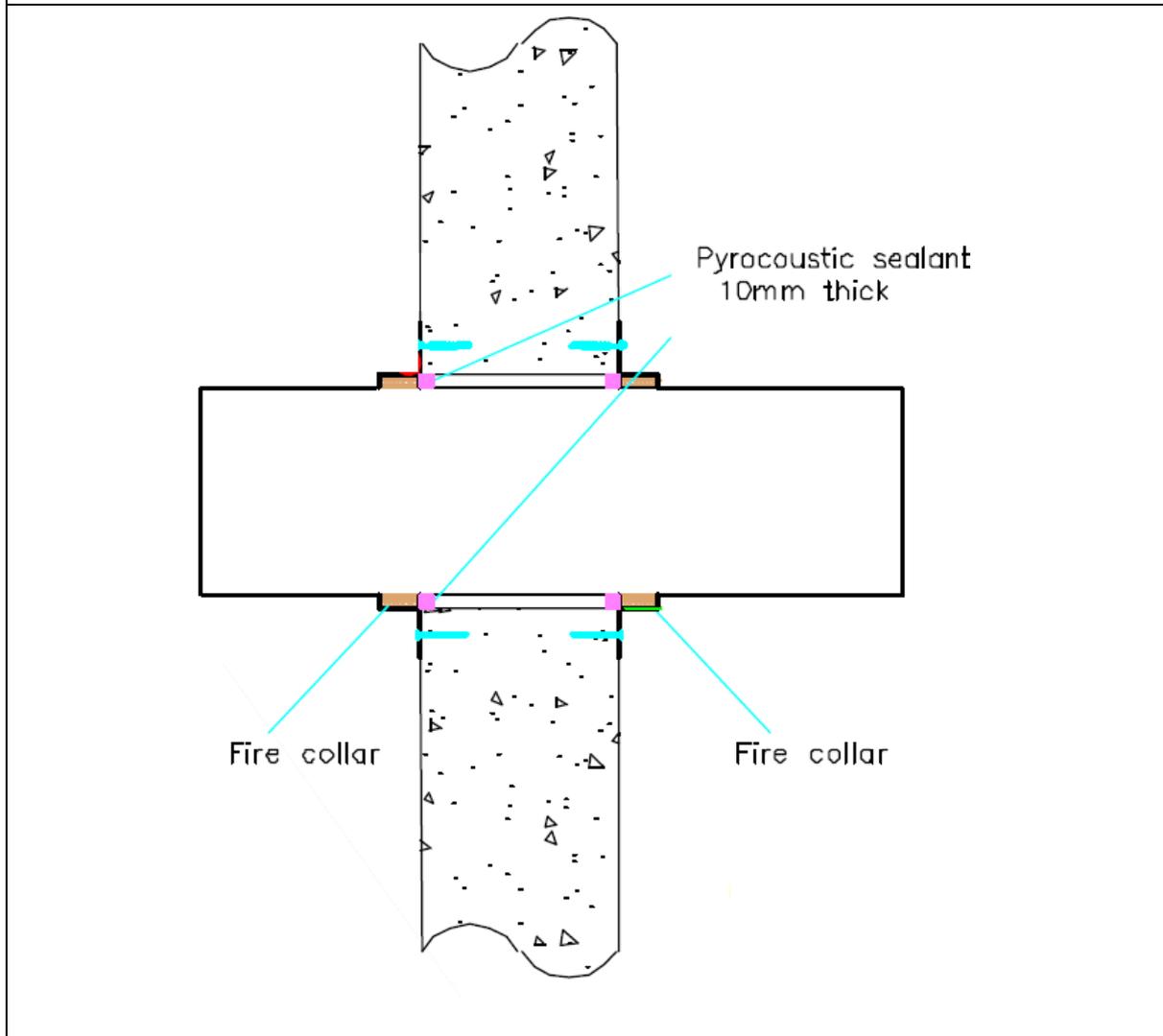
### A.2.1.3 PE pipes with Fischer FFC Firestop Collar installed on both sides of flexible or rigid wall

PE pipes according to EN ISO 15494 with Fischer FFC Firestop Collar.

<b>fischer FFC Firestop Collar , Face Fixed on Both Sides of Flexible or Rigid Wall (min 100 mm thick) PVC-U Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PVC Pipe 32 mm ø 1.8 mm wall thickness	32 mm	30 mm (W) x 4 mm (T)	10	Fixed on both sides of the wall with a 6mm x 65mm long fischer HM 6x65 S, steel toggle anchor	<b>EI 120 U/C</b>
PVC Pipe 40 mm ø 1.8 mm wall thickness	40 mm				
PVC Pipe 50 mm ø 1.8 mm wall thickness	50 mm				
PVC Pipe 55 mm ø 2.3-3.0 mm wall thickness	55 mm	30 mm (W) x 6 mm (T)			
PVC Pipe 63 mm ø 2.3-3.0 mm wall thickness	63 mm				
PVC Pipe 75 mm ø 3.1-4.8 mm wall thickness	75 mm	30 mm (W) x 8 mm (T)			
PVC Pipe 82 mm ø 3.1-4.8 mm wall thickness	82 mm				
PVC Pipe 90 mm ø 4.2-7.4 mm wall thickness	90 mm	30 mm (W) x 10 mm (T)			
PVC Pipe 100 mm ø 4.2-7.4 mm wall thickness	100 mm				
PVC Pipe 110 mm ø 4.2-7.4 mm wall thickness	110 mm				
PVC Pipe 125 mm ø 6.0 mm wall thickness	125 mm	40 mm (W) x 12 mm (T)			
PVC Pipe 140 mm ø 6.1-7.5 mm wall thickness	140 mm	40 mm (W) x 16 mm (T)			
PVC Pipe 160 mm ø 6.2-9.5 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)			

### A.2.2 Penetration seal with fischer FFC Firestop Collar installed on both sides of rigid wall

Construction details: Combustible pipes installed with a single fischer FFC Firestop Collar to both sides. Maximum 10 mm annular space filled with fischer FiAM Intumescent Acoustic Mastic.



### A.2.2.1 PP pipes with Fischer FFC Firestop Collar installed on both sides of rigid wall

PP pipes according to EN 1451 with Fischer FFC Firestop Collar.

<b>fischer FFC Firestop Collar, Face Fixed on Both Sides of Rigid Wall (min 100 mm thick) PP Pipes</b>					
<b>Penetration Specification</b>	<b>Collar Reference</b>	<b>Intumescent Material</b>	<b>Annulus Space (mm)</b>	<b>Collar Fixing</b>	<b>Classification</b>
PP Pipe 110 mm $\varnothing$ 2.7 mm wall thickness	110 mm	30 mm (W) x 10 mm (T)	10	Fixed on both faces of the wall with 3No. 40mm fischer pins	<b>EI 120 U/U</b>
PP Pipe 160 mm $\varnothing$ 4.0 mm wall thickness	160 mm	40 mm (W) x 18 mm (T)		Fixed on both faces of the wall with 3No. $\varnothing$ 4 x 70mm wood screws and penny washers	<b>EI 120 U/U</b>
PP Pipe 250 mm $\varnothing$ 6.2 mm wall thickness	250 mm	40 mm (W) x 24 mm (T)		<b>EI 120 U/C</b>	