

**Firestop wrap strip CFS-W EL**



**Applications**

- Sealing flammable pipes from 50 mm to 160 mm in diameter in penetrations through fire compartment walls and floors
- Pipe materials: PE, PE-HD, PVC-U, PVC, PVC-C
- Suitable for use in openings in concrete, aerated concrete, masonry and drywall
- Different backfilling and sealing materials are covered

**Advantages**

- Quick and easy closure without tools
- Highest flexibility - one product for pipe diameters from 50 mm to 160 mm
- Sound decoupling strip based on PE (foam) can be used
- Ideal for very tight installations



**Technical data**

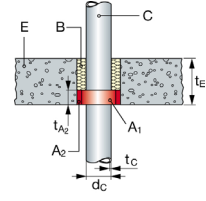
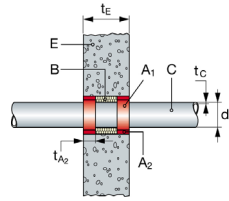
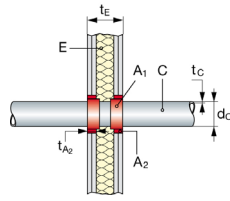
<b>Pipe diameter - min.</b>	50 mm
<b>Base materials</b>	Aerated concrete, Concrete, Drywall, Masonry
<b>Pipe diameter - range</b>	50 - 160 mm
<b>Approvals</b>	ETA-10/0405
<b>Application temperature range</b>	-5 - 50 °C
<b>Temperature resistance range</b>	-20 - 100 °C
<b>Reaction to fire class (EN 13501-1)</b>	E
<b>Dimensions (LxWxH)</b>	10000 x 45 x 5 mm
<b>Shelf life<sup>1)</sup></b>	Not relevant
<b>Can be painted</b>	No

<sup>1)</sup> at 77 °F / 25° C and 50% relative humidity; from date of manufacture



Ordering description	Dimensions (LxWxH)	Height	Sales pack quantity	Item number
Firestop wrap strip CFS-W EL W45/1.8"	10000 x 45 x 5 mm	5 mm	1 pc	429556

General information



Partition	Flexible wall	Rigid wall	Rigid floor
Base material thickness ( $t_E$ )	$\geq 100$ mm	$\geq 100$ mm	$\geq 150$ mm
Annular gap		0 - 9.5 mm*	
Gap filler	CFS-S ACR backed with mineral wool**		
Penetration	Plastic pipes (PVC-U, PE, PVC ...)		

\* Maximum annular gap varies from 1.5 mm to 9.5 mm depending on pipe type

\*\* Alternatively use gypsum plaster or cementitious mortar. See ETA for full details of the correct application.

Main approved applications

Excerpt of ETA document. Check the exact field of application for each pipe (type, diameter and pipe wall thickness) in the ETA 10/0405 document.



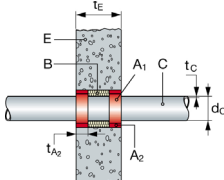
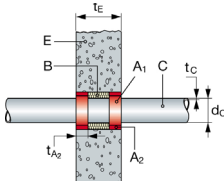
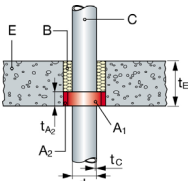

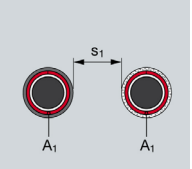
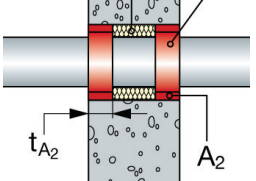
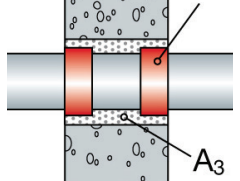


Application	Pipe material	Pipe $\varnothing$	Pipe wall thickness	Flexible wall	Rigid wall	Rigid floor
	PVC-U* PVC-C**	50 - 75 mm	2.2 - 3.6 mm	EI 120 U/C		-
		75 - 125 mm	3.7 - 3.6 mm	EI 90 U/C		EI 120 U/C
		125 - 160 mm	3.4 - 4 mm	EI 60 U/C		
	PE (EN 1519, EN 1201-2, EN 12666-1)	50 - 75 mm	3.0 mm	EI 120 U/C		
		75 - 125 mm	4.8 mm	EI 120 U/C		
		125 - 160 mm	6.2 mm	-		EI 120 U/C
	PE (EN ISO 15494 and DIN 8074/8075)	50 - 75 mm	1.9 - 6.8 mm	EI 120 U/C		-
		75 - 125 mm	3.2 - 7.1 mm	EI 120 U/C		EI 120 U/C
		125 - 160 mm	9.1 mm	EI 190 U/C		

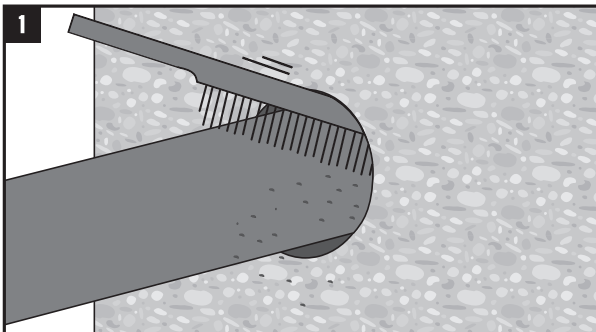
\* PVC-U pipes: EN ISO 15493, EN ISO 1452, DIN 8061/8062, EN 1329-19, EN 1453-1

\*\* PVC-C pipes: EN 1566-18

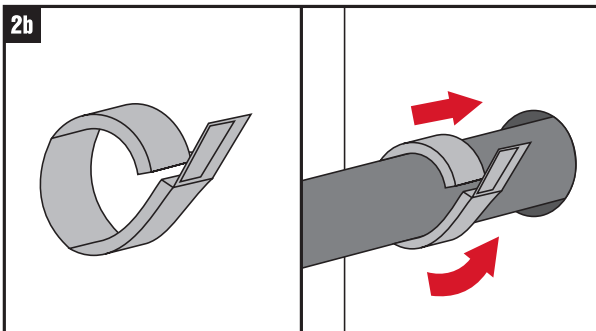
**Other approved applications**

<p>Other PVC-U pipes covered</p>			<p><a href="#">View ETA-10/0405 for detail of all approved pipes configurations</a></p> <p>Ratings always depend on substrate, pipe type, diameter and thickness</p>
<p>EI 180 U/C in rigid walls <math>\geq 150</math> mm density <math>\geq 650</math> mm kg/m<sup>3</sup></p>		<p>EI 180 U/C</p>	<p><a href="#">View ETA-10/0405 for details of approved pipes</a></p> <p>EI 180 U/C for large PVC-U, PVC-C and PE pipes (125 mm <math>&lt;\varnothing \leq</math> 160 mm)</p>
<p>EI 240 U/C in rigid walls <math>\geq 175</math> mm density <math>\geq 1100</math> mm kg/m<sup>3</sup></p>		<p>EI 240 U/C</p>	<p><a href="#">View ETA-10/0405 for details of approved pipes</a></p> <p>EI 240 U/C for PVC-U, PVC-C and PE pipes (<math>\varnothing \leq</math> 160 mm)</p>
<p>More tested pipes in rigid walls <math>\geq 200</math> mm density <math>\geq 2400</math> mm kg/m<sup>3</sup></p>		<p>up to EI 240 U/C</p>	<p><a href="#">View ETA-10/0405 for details of approved pipes</a></p> <p>PVC-U, PVC-C and PE pipes (<math>\varnothing \leq</math> 160 mm)</p>
<p>Sound decoupling</p>		<p><a href="#">View ETA-10/0405 for various approved sound decoupling means</a></p> <p>Either use Firestop Acrylic Sealant CFS-S ACR to fill the annular gap, or alternatively a PE foam strip around the pipe (max 5 mm thick)</p>	
<p>Distance between penetrations</p>		<p>-</p>	<p>Minimum distance between 2 penetrations (s1): 200 mm</p>
<p>Annular gap filling options</p>			<p><a href="#">View ETA-10/0405 for various alternatives of gap filling</a></p> <p>When using sealant (CFS-S ACR), apply 25 mm thick in flexible wall, 15 mm thick for rigid walls and 10 mm in floors</p>

General instructions for use

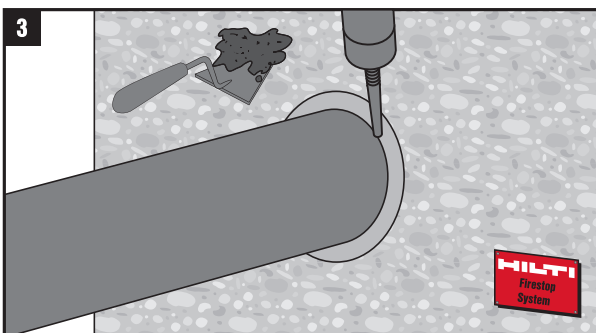


Clean the plastic pipe in the area where the Hilti Firestop Wrap CFS-W is to be installed.1



Cut the Hilti Firestop Wrap CFS-W EL to length according to the outer diameter of the pipe, taking the required number of layers into consideration. If sound decoupling means are installed around the pipe this has to be considered when cutting the wrap to length. Wrap the Hilti Firestop Wrap CFS-W EL around the pipe and secure it with a short strip of adhesive tape. Push the Hilti Firestop Wrap CFS-W into the annular gap until its outer edge is flush with the surface of the wall or floor.

Do not install Hilti Firestop Wrap CFS-W in the centre of the wall/floor or using single layers of CFS-W EL one behind the other.



Seal the remaining gap with Hilti Firestop Acrylic Sealant CFS-S ACR or a cementitious mortar. Use minimum 25 mm Hilti Firestop Acrylic Sealant CFS-S ACR in case of flexible wall constructions, minimum 15 mm in rigid wall constructions and minimum 10 mm, backfilled with mineral wool, in case of rigid floor constructions. In case of use of mortar the gap is to be filled completely over the entire thickness of the wall or floor.

Consumption guide (per box of 10m)

Pipe Ø (mm)	#layers	CFS-W EL Length (cm) per side	#penetrations per box (2 sides of wall)	#penetrations per box (1 side for floor)	Suggested opening size
32	1	12	41	83	47
50	1	17	29	58	67
63	1	21	23	47	77
75	1	25	20	40	92
90	2	64	7	15	112
110	2	76	6	13	132
125	2	86	5	11	152
160	3	166	3	6	202

**Characteristics of CFS-W EL**

Characteristics	Assessment of characteristics	Norm, standard, test
<b>Health and the environment</b> Dangerous substances	CFS-W is in compliance concerning the registration, evaluation, authorisation and restriction of Chemicals (REACH). The product does not contain any constituents contained in the list of dangerous substances of the European Commission above the acceptable limits.	Material safety data sheet
<b>Durability and serviceability</b>	Use category Y2, <sup>(-20/+70)°C</sup> Intended for use in external sheltered conditions at temperatures between -20 °C and +70 °C, but no exposure to rain or UV, as well as humid and dry internal conditions.	ETAG 026-2 and 3
<b>Reaction to fire</b>	Class E	EN 13501-1