

INTU FR WRAP L

Intumescent pipe roll

TDS Technical Data Sheet



•INTUSEAL®
passive fire protection manufacturer

CE



www.intuseal.com

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Intumescent pipe wrap roll

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→ PRODUCT DESCRIPTION

Firestop tape **INTU FR WRAP L** is made of graphite-based material. The material swells under the influence of high temperature (about 140°C), and fills the entire space created after burned flammable systems.

→ APPLICATION

INTU FR WRAP L is used for fire protection of penetrations with plastic pipes (PVC, PP, PE, HDPE, PEX/Al/PEX, PE-RT/Al/PE-RT, PP-R/Al/PP-R, PP-R GLASS) running through fire partitions. It is also possible to protect non-flammable pipes with insulation made of synthetic Armaflex /K-flex or PE foam, penetrating floors or walls.

- protection of flammable and non-flammable pipes insulated with synthetic rubber Armaflex / K-Flex or PE foam
- fire resistance up to 240 minutes
- availability: roll length: 10, 25 or 50 meters; width: 60mm and 100mm
- installation on pipes with large diameters is possible
- easy to cut
- high swelling ratio
- ideal for installation in very tight spaces

Rigid walls:

The wall must be at least 150mm thick and have concrete, cellular concrete structure or masonry structure, with a minimum density of 600kg/m³

Rigid floors:

The floor must be at least 150mm thick and have concrete, cellular concrete structure or masonry structure, with a minimum density of 1700kg/m³

Flexible walls:

The wall must be at least 125mm thick and have a steel profile structure covered on both sides with a minimum of 2 layers of boards with a thickness of 12.5mm.

→ AVAILABILITY

Type	Art. No.
10mb x 60mm	INWRL60X10
10mb x 60mm (AT)	INWRL60X10AT
25mb x 60mm	INWRL60X25
25mb x 60mm (AT)	INWRL60X25AT
10mb x 100mm	INWRL100X10
10mb x 100mm (AT)	INWRL100X10AT
25mb x 100mm	INWRL100X25
25mb x 100mm (AT)	INWRL100X25AT

AT – Adhesive Tape



→ COMPLIANCE:

- Reference standard: EN 1366-3 / ETAG 026-2 / EAD 350454-00-1104
- DoP 1/2019
- ETA-18/0593
- CoC 1488-CPR-0722/W
- TDS
- SDS

→ TRANSPORT AND STORAGE

It is recommended to store in dry internal conditions at temperatures between + 5°C and + 35°C.

➔ FIRE RESISTANCE CLASSIFICATION for flammable pipes

IN WALLS	DIAMETER	32mm	40mm	50mm	55mm	63mm	75mm	90mm	110mm	125mm	160mm	200mm	
	PVC	EI240	EI240	EI240	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120
	PP	EI240	EI240	EI240	EI120	EI120	EI120	EI120	EI120	EI120	EI60	EI60	EI60
	HDPE	EI240	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI90
	PEX/AL./PEX	EI120	EI120	EI120	EI120	EI120	EI120	X	X	X	X	X	X
	PE-RT/AL./PE-RT	EI240	EI240	EI240	EI240	EI240	EI240	X	X	X	X	X	X
	PP-R/AL./PP-R	EI240	EI240	EI240	EI240	EI240	EI240	EI240	EI240	X	X	X	X
	PP-R GLASS	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	X	X	X	X

IN FLOORS	DIAMETER	32mm	40mm	50mm	55mm	63mm	75mm	90mm	110mm	125mm	160mm	200mm	
	PVC	EI240	EI240	EI240	EI240	EI240	EI240	EI120	EI120	EI120	EI120	EI120	EI120
	PP	EI240	EI240	EI240	EI240	EI240	EI240	EI240	EI240	EI90 EI120*	EI90 EI120*	X	X
	HDPE	EI240	EI240	EI240	EI240	EI240	EI240	EI120	EI120	EI120	EI120	EI90 EI120*	X
	PEX/AL./PEX	EI240	EI240	EI240	EI240	EI240	EI240	X	X	X	X	X	X
	PE-RT/AL./PE-RT	EI120	EI120	EI120	EI120	EI120	EI120	X	X	X	X	X	X
	PP-R/AL./PP-R	EI240	EI240	EI240	EI240	EI240	EI240	EI240	EI240	X	X	X	X
	PP-R GLASS	EI240	EI240	EI240	EI240	EI240	EI240	EI240	EI240	X	X	X	X

FLEXIBLE WALL	DIAMETER	32mm	40mm	50mm	55mm	63mm	75mm	90mm	110mm	
	PVC	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120
	PP	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120
	HDPE	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120	EI120

➔ FIRE RESISTANCE CLASSIFICATION for non-flammable pipes with flammable insulation

Steel pipes in synthetic rubber insulation	Partition	INSULATION synthetic rubber	Material	42,4mm	88,9mm	159,0mm	219,0mm
	Wall	9mm	steel	EI120	EI240	EI60	EI60
	Wall	50mm	steel	EI120	EI120	EI120	EI90
	Floor	9mm	steel	EI240	EI120	EI120	EI60*
	Floor	50mm	steel	EI240	EI120	EI120	EI90*
	Flexible wall	9mm	steel	EI120	EI90	EI60*	X
	Flexible wall	50mm	steel	EI120	EI120	X	X

Copper pipes in synthetic rubber insulation	Partition	INSULATION synthetic rubber	Material	15mm	54,0mm	108,0mm
	Wall	9mm	copper	EI120	EI240	EI60
	Wall	50mm	copper	EI120	EI120	EI60
	Floor	9mm	copper	EI240	EI120	X
	Floor	50mm	copper	EI240	EI120	X
	Flexible wall	9mm	copper	EI120*	X	X
	Flexible wall	50mm	copper	EI120*	EI60*	X

→ FIRE RESISTANCE CLASSIFICATION for a bundle of copper pipes

Copper pipes in PE foam insulation	Partition	INSULATION PE foam	Material	1/4"	5/8"	bundle (separate wrapping) 1/4" 1/4" 5/8"	bundle (collective wrapping) 1/4" 1/4" 5/8"	Numbers of wrap
	Wall	9mm	copper	EI240	EI120	EI120	EI120	2
	Floor	9mm	copper	EI120	EI120	EI120	EI120	2

→ FIRE RESISTANCE CLASSIFICATION for a bundle of pipes copper, flammable and cables

Copper pipes in PE +flammable pipes + cabel	Partition	Type	EI	Numbers of wrap
	Wall	Copper in PE (1/4" i 5/8") + cable Ø 21mm + PP pipe Ø 25mm	EI120*	4
	Floor	Copper in PE (1/4" i 5/8") + cable Ø 21mm + PP pipe Ø 32mm	EI240*	4

*outside of ETA, result based on the test report

→ FIRE RESISTANCE CLASSIFICATION – outside ETA

Combustible insulated pipes (rubber) *

TYPE	DN	THICKNESS RUBBER [mm]	PARTITION	EI	Numbers of wrap
HDPE	110	2x9	wall	EI 120	4
PP-R GLASS	110	2x9	wall	EI 120	4
PP-R	110	2x9	wall	EI 120	4
HDPE	110	2x9	floor	EI 120	4
PP	110	2x9	floor	EI 120	4
HDPE	110	2x13	floor	EI 120	4
PP-R	110	2x9	floor	EI 120	4
PP-R GLASS	110	2x9	floor	EI 120	4
HDPE	160	2x23	floor	EI 120	8

Combustible insulated pipes (Tubolit)*

TYPE	DN	Tubolit DG Plus [mm]	PARTITION	EI	Numbers of wrap
PP	75	2x9	wall	EI 60	2
PP	110	2x13	wall	EI 60	4
PP	75	2x9	floor	EI 240	2

Other combustible pipes *

TYPE	DN	PARTITION	EI	Numbers of wrap
PP Basalt	110	wall	EI 240	2
PP Basalt	110	floor	EI 90	2

Other combustible pipes next to each other*

TYPE	DN	PARTITION	EI	Numbers of wrap
PP + PP	110	wall	EI 120	2
PP + HDPE	110	floor	EI 120	2
3x HDPE	3x32	floor	EI 240	1
3x HDPE	3x32	wall	EI 120	1

* outside of ETA, result based on the test report

➔ TAPE YIELD

FLAMMABLE PIPES

Wrap type [width]	Diameters [mm]	Pipe type	Number of wraps	Amount from a roll 10m [pcs.]
60mm	≤32	PVC, PP, PE, HDPE	1	88,5
	≤40		1	72,4
	≤50		1	59,0
	≤55		1	54,0
	≤63		1	47,5
	≤75		1	40,3
	≤82		2	18,1
	≤90		2	16,6
100mm	≤110		2	13,7
	≤125		4	5,9
	≤160	5	3,7	
	≤200	8	1,8	

LAYERED FLAMMABLE PIPES

Wrap type [width]	Diameters [mm]	Pipe type	Number of wraps	Amount from a roll 10m [pcs.]	
60mm	≤20	PP STABI (Aluminium/Glass)	1	132,7	
	≤25		1	109,8	
	≤32		1	88,5	
	≤40		1	72,4	
	≤50		1	59,0	
	≤63		1	47,5	
	≤75		1	40,3	
	≤90		2	16,6	
60mm	≤110		2	13,7	
	≤20		PEX/AL/PEX	1	132,7
	≤25	1		109,8	
	≤32	1		88,5	
	≤40	1		72,4	
	≤50	1		59,0	
≤63	1	47,5			
60mm	≤75	1		40,3	
	≤20	PE-RT/AL/PE-RT		1	132,7
	≤25			1	109,8
	≤32			1	88,5
	≤40		1	72,4	
	≤50		1	59,0	
≤63	1		47,5		
60mm	≤75		1	40,3	

NON-FLAMMABLE PIPES IN SYNTHETIC RUBBER INSULATION **

Wrap type [width]	Diameters [mm]	Thickness of the pipe wall [mm]	Armaflex thickness	Number of wraps
60mm	≤159,0 mm	2,0 - 14,2	9	1
			10	2
			13	2
			16	2
			19	2
			25	3
			32	3
			40	4
50	4			

** detailed information in calculator

➔ INSTALLATION METHOD

Prepare the appropriate length of the tape (cut off from the roll). Wrap the pipe. Slide inside the fire partition. Fill the gap with cement mortar.

FLAMMABLE PIPES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

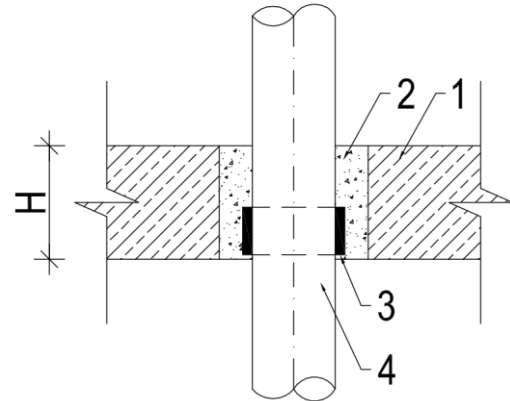


Fig. 1. A single pipe in a floor

- 1 – floor
- 2 – cement mortar filling
- 3 – INTU FR WRAP L firestop tape max 1 cm above floor
- 4 – flammable pipe

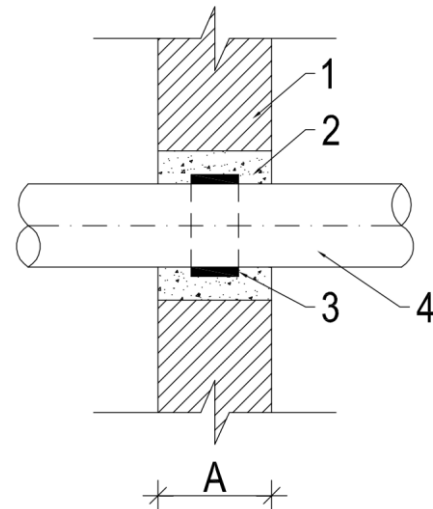
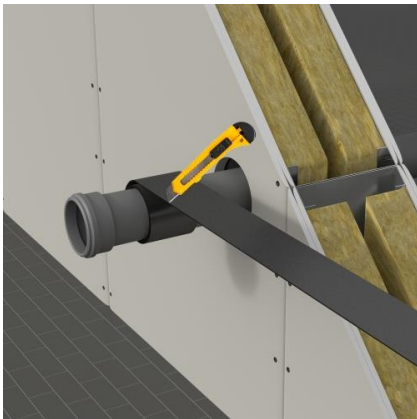


Fig. 2. A single pipe in a wall

- 1 – wall
- 2 – cement mortar filling
- 3 – INTU FR WRAP L firestop tape
- 4 – flammable pipe

FLAMMABLE PIPES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

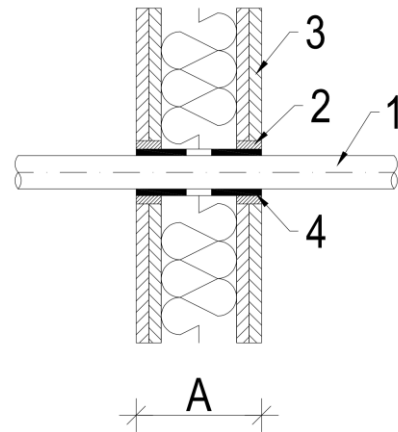


Fig. 3. A single pipe in a drywall

- 1 – flammable pipe
- 2 – cement mortar filling
- 3 – drywall
- 4 – 2 x INTU FR WRAP L firestop tape flush with the partition

INTU FR WRAP L

Intumescent pipe wrap roll

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FLAMMABLE PIPES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

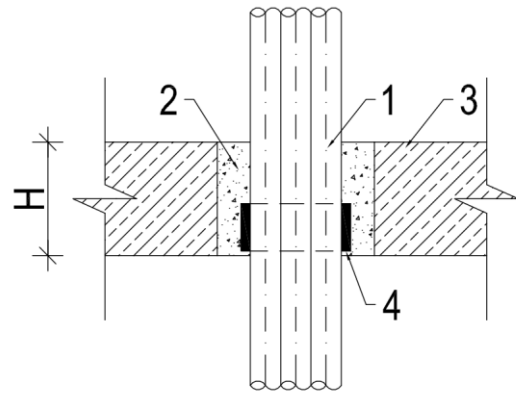


Fig. 4. A bundle of pipes in a floor

- 1 – a bundle of flammable pipes
- 2 – cement mortar filling
- 3 – floor
- 4 – INTU FR WRAP L firestop tape max 1 cm above bottom of the floor

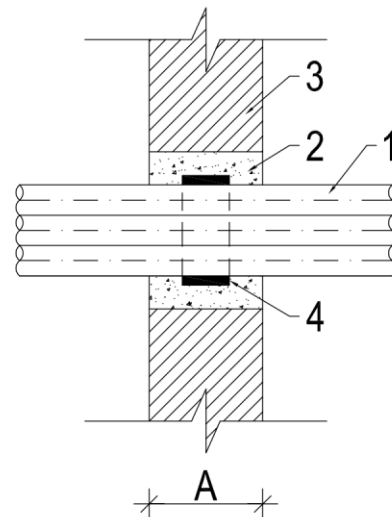
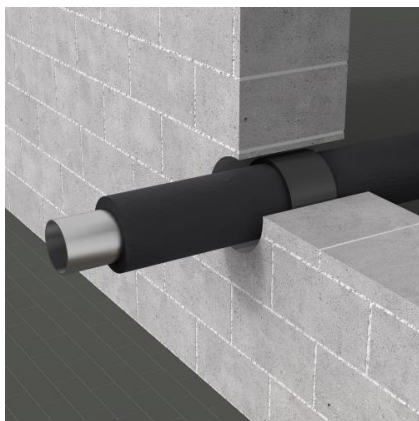
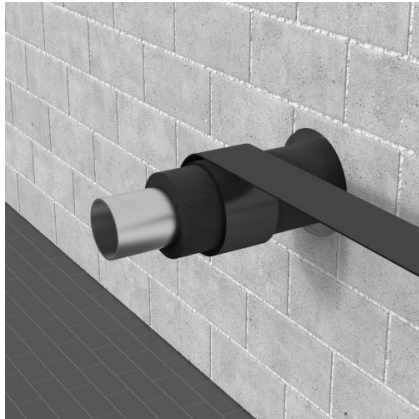


Fig. 5. A bundle of pipes in a wall

- 1 – a bundle of flammable pipes
- 2 – cement mortar filling
- 3 – wall
- 4 – INTU FR WRAP L firestop tape

NON-FLAMMABLE PIPES WITH FLAMMABLE INSULATION



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

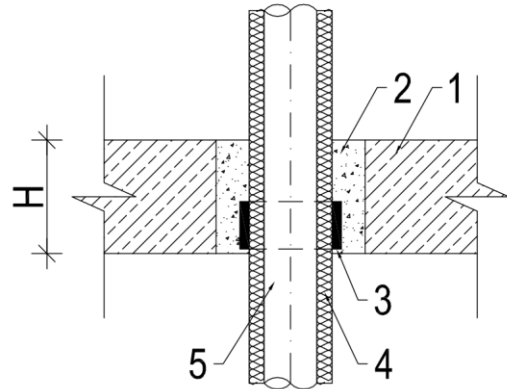


Fig. 6. A single pipe with rubber in a floor

- 1 – floor
- 2 – cement mortar filling
- 3 – INTU FR WRAP L firestop tape max 1 cm above floor
- 4 – rubber (flammable insulation)
- 5 – non-flammable pipe

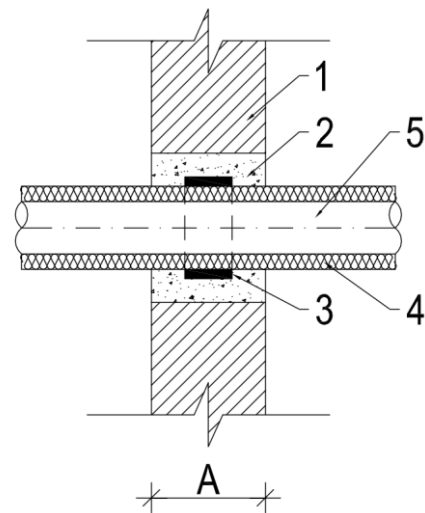
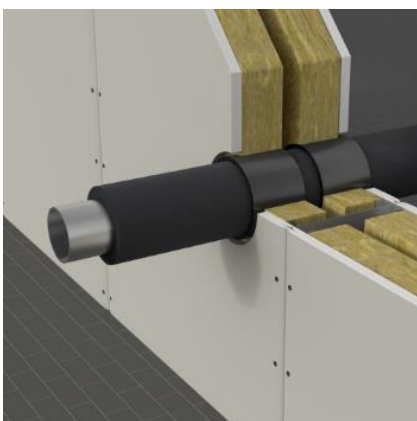
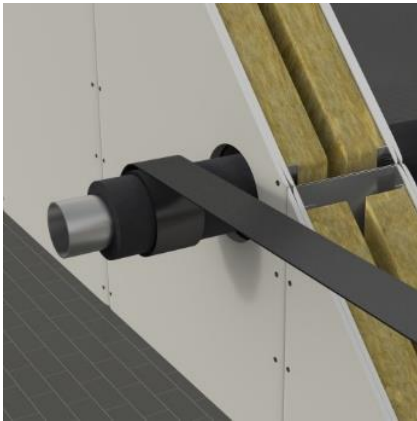


Fig. 7. A single pipe with rubber in a wall

- 1 – wall
- 2 – cement mortar filling
- 3 – INTU FR WRAP L firestop tape
- 4 – rubber (flammable insulation)
- 5 – non-flammable pipe

NON-FLAMMABLE PIPES WITH FLAMMABLE INSULATION



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

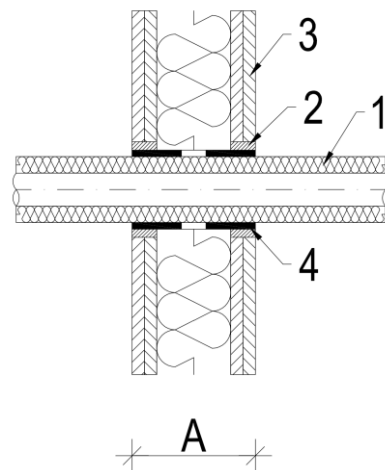
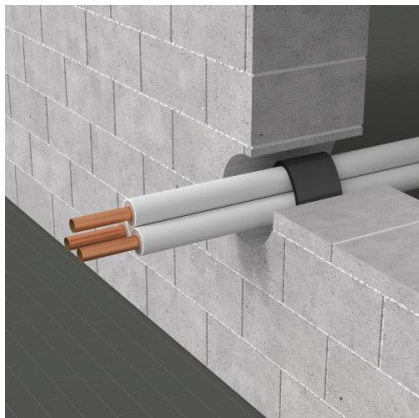
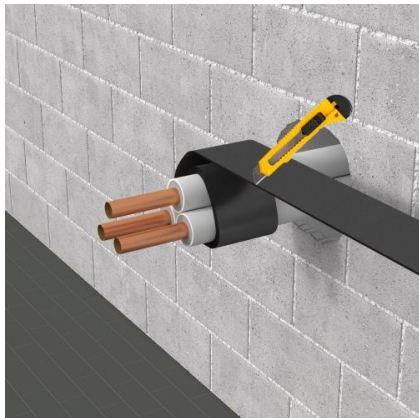
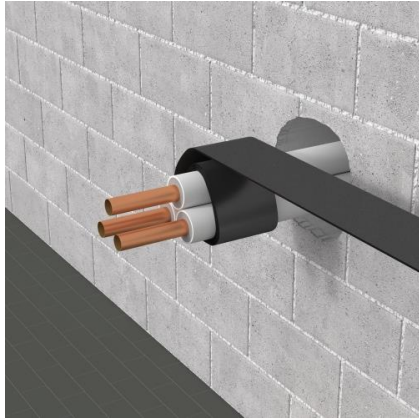


Fig. 8. A single pipe with rubber in a drywall

- 1 – rura niepalna w izolacji palnej
- 2 – wypełnienie zaprawą cementową
- 3 – ściana G/K
- 4 – 2 x INTU FR WRAP L firestop tape flush with the partition

BUNDLE OF COPPER PIPES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

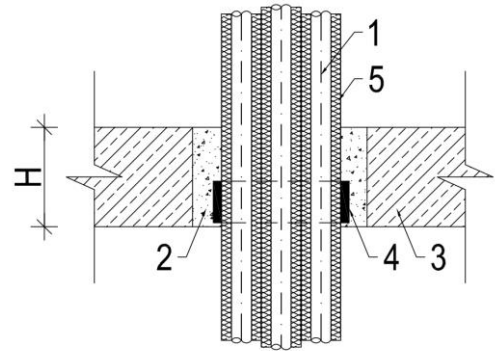


Fig. 9. A bundle of copper pipes insulated with PE foam in a floor

- 1 – a bundle of copper pipes $\leq \varnothing 5/8"$ in PE foam insulation
- 2 – cement mortar filling
- 3 – floor
- 4 – INTU FR WRAP L firestop tape max 1 cm above floor
- 5 – PE foam insulation

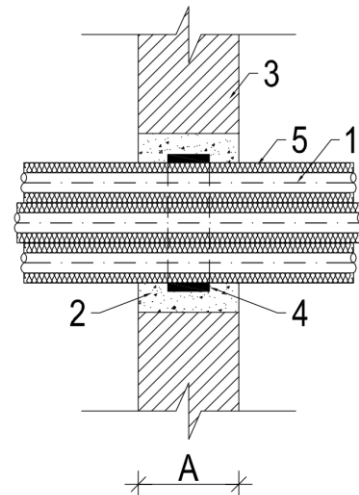
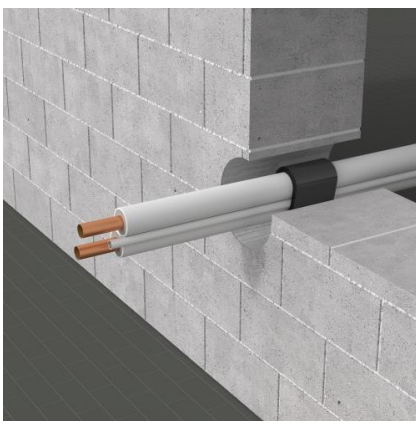
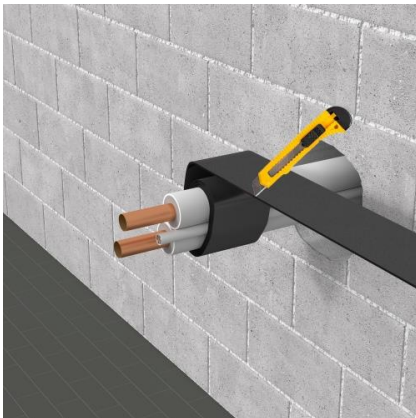
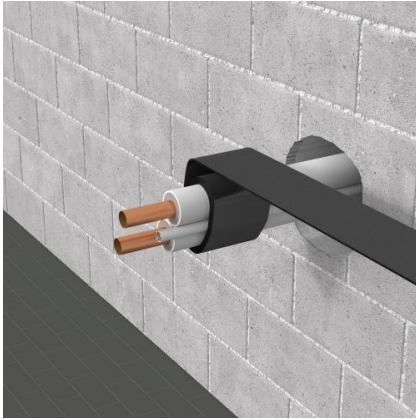


Fig. 10. A bundle of copper pipes insulated with PE foam in a wall

- 1 – a bundle of copper pipes $\leq \varnothing 5/8"$ in PE foam insulation
- 2 – cement mortar filling
- 3 – wall
- 4 – INTU FR WRAP L firestop tape
- 5 – PE foam insulation

BUNDLE OF COPPER PIPES AND CABLES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

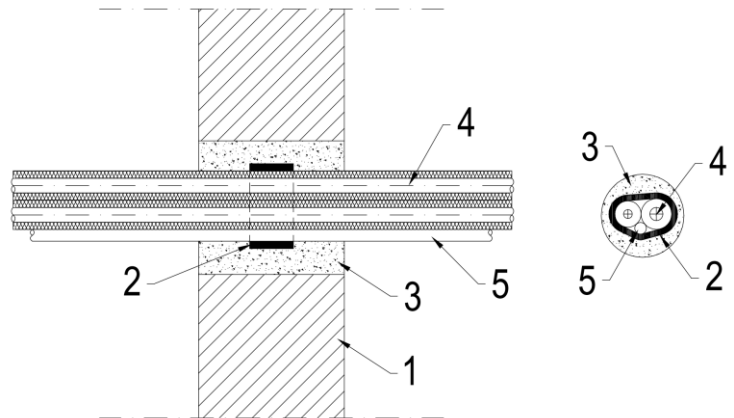


Fig. 11. A bundle of copper pipes insulated with PE foam, electric cables in a wall

- 1 – wall
- 2 – INTU FR WRAP L firestop tape
- 3 – cement mortar filling
- 4 – a bundle of copper pipes \varnothing 1/4" and \varnothing 5/8" in PE foam insulation
- 5 – single or bundled electric cable max. \varnothing 21mm

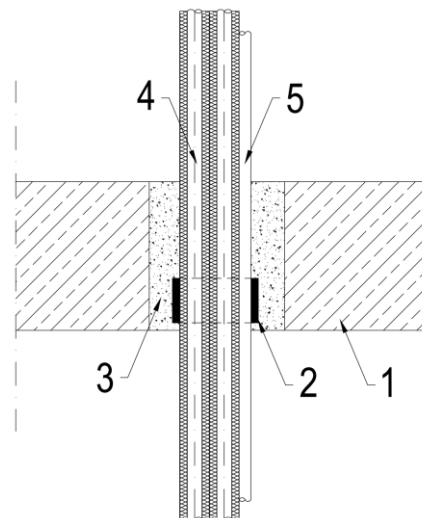
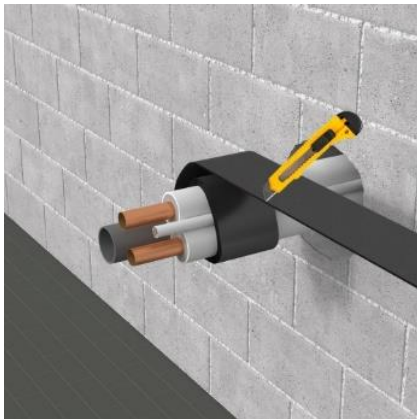
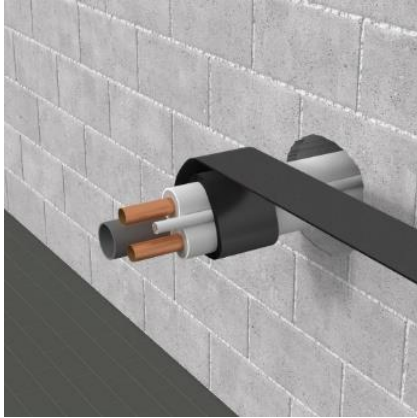


Fig. 12. A bundle of copper pipes insulated with PE foam, electric cables in a floor

- 1 – floor
- 2 – INTU FR WRAP L firestop tape max 1 cm above floor
- 3 – cement mortar filling
- 4 – a bundle of copper pipes \varnothing 1/4" and \varnothing 5/8" in PE foam insulation
- 5 – single or bundled electric cable max. \varnothing 21mm

BUNDLE OF COPPER / FLAMMABLE PIPES AND CABLES



THE NUMBER OF WRAPS MUST MATCH WITH FIRE CLASSIFICATION.

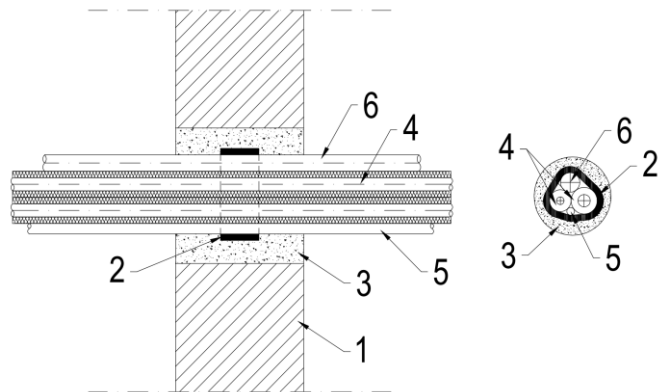


Fig. 13. A bundle of copper pipes insulated with PE foam, electric cables, combustible pipe in a wall

- 1 – wall
- 2 – INTU FR WRAP L firestop tape
- 3 – cement mortar filling
- 4 – a bundle of copper pipes \varnothing 1/4" and \varnothing 5/8" in PE foam insulation
- 5 – single or bundled electric cable max. \varnothing 21mm
- 6 – combustible pipe PP max. \varnothing 32mm

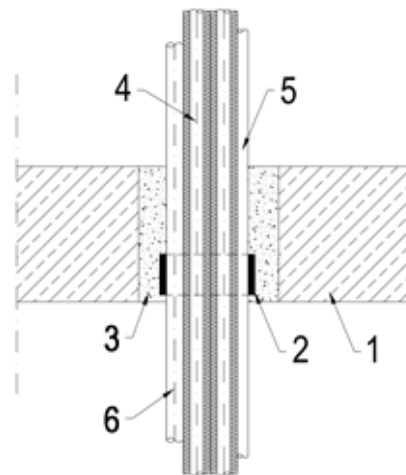


Fig. 14. A bundle of copper pipes insulated with PE foam, electric cables, combustible pipe in a floor

- 1 – floor
- 2 – INTU FR WRAP L firestop tape max 1 cm above floor
- 3 – cement mortar filling
- 4 – a bundle of copper pipes \varnothing 1/4" and \varnothing 5/8" in PE foam insulation
- 5 – single or bundled electric cable max. \varnothing 21mm
- 6 – combustible pipe PP max. \varnothing 32mm