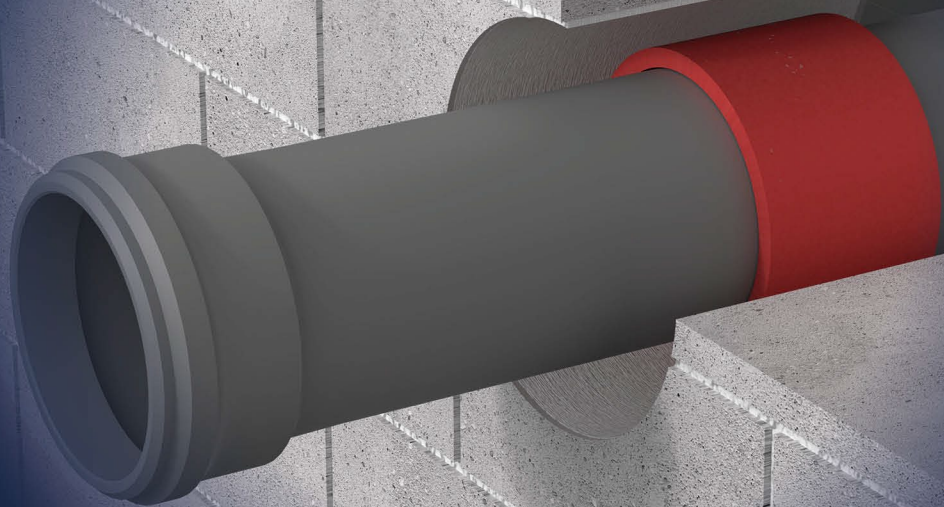


INTU FR WRAP

Intumescent pipe wrap

TECHNICAL DATA SHEET



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INTU FR WRAP

Intumescent pipe wrap

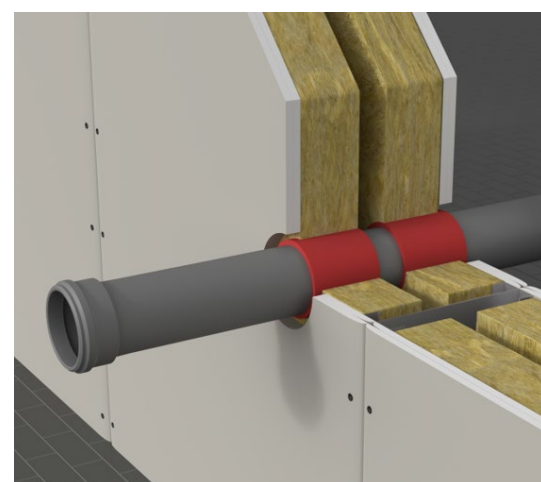
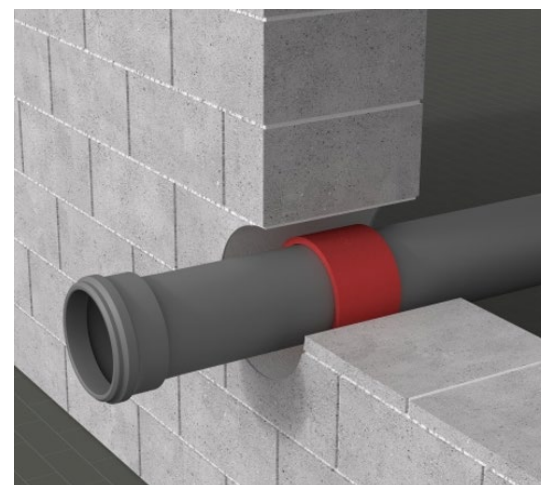
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PRODUCT DESCRIPTION

INTU FR WRAP fire protection strips are made of a graphite-based material which swells during a fire, preventing the spread of fire and creating a barrier that ensures the partition remains airtight and insulated up to EI 240.

APPLICATION

The **INTU FR WRAP** band is used for fire protection of plastic, composite and multi-layer composite pipes passing through fire separation partitions, individually or in bundles, as well as combustible and non-combustible pipes in insulation.



Flexible wall:	The wall should be at least 100 mm thick. It should be made of double-sided cladding consisting of at least two plasterboard panels.
Rigid wall:	The wall should be at least 100 mm thick. It should be made of concrete or masonry elements with a density of not less than 450 kg/m ³ .
Rigid ceiling:	The ceiling should be at least 150 mm thick. It should be made of concrete, reinforced concrete or aerated concrete with a density of at least 550 kg/m ³ .

AVAILABILITY

Product	Type	Delivery form	Article number
INTU FR WRAP	32 mm	1 pcs.	1203206010
	40 mm	1 pcs.	1204006010
	55 mm	1 pcs.	1205506010
	63 mm	1 pcs.	1206306010
	75mm	1 pcs.	1207506010
	82 mm	1 pcs.	1208206020
	110 mm	1 pcs.	1211006020
	125 mm	1 pcs.	1212510040
	160 mm	1 pcs.	1216010050
	200 mm	1 pcs.	1220010080

COMPLIANCE

European Technical Assessment:

ETA-18/0593

Declaration of performance:

DoP 1/2019

Certificate of Constancy of Performance:

1488-CPR-0722/W



TRANSPORT AND STORAGE

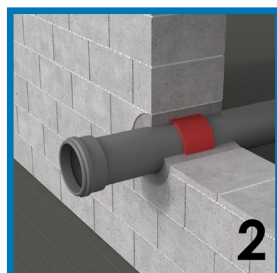
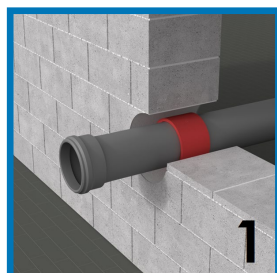
Transport and store in a dry and cool place at a temperature between +5°C and +35°C.

INTU FR WRAP

Intumescent pipe wrap

TECHNICAL DATA SHEET

ASSEMBLY



1. Wrap the pipe. Insert the **INTU FR WRAP** band into the partition.

2. Fill the gap with mortar.

TECHNICAL DATA

Table 1 Specification **INTU FR WRAP**

Band type	Insert dimensions		Number of inserts in the band [pcs.]
	Thickness [mm]	Width [mm]	
32 mm	2,0	60	1
40 mm	2,0	60	1
55 mm	2,0	60	1
63 mm	2,0	60	1
75 mm	2,0	60	1
82 mm	2 x 2,0	60	2
110 mm	2 x 2,0	60	2
125 mm	4 x 2,0	100	4
160 mm	5 x 2,0	100	5
200 mm	8 x 2,0	100	8

FIRE CLASSIFICATION

Table 2 Fire resistance classification for PP pipe penetrations $\varnothing \leq 50$

Pipe material: PP					
INTU FR WRAP type	Diameter Ø [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling	Wall compliant *1 / rigid
			EI classification		
32 mm	Ø ≤ 32	1,8	240	240	120
		1,9 – 12,5	180		
		12,6-18,4		-	-
40 mm	32 < Ø ≤ 40	1,8	240	240	120
		1,9 - 12,5	180		
		12,6 -18,4		-	-
50 mm	40 < Ø ≤ 50	1,8	240	240	120
		1,9 - 12,5	180		
		12,6 -18,4		-	-

Table 3 Fire resistance classification for PE-RT, PE-RT/AI/PE-RT and PE-X pipe penetrations

Diameter Ø [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling
		EI classification	
Pipe material: PE-RT			
Ø ≤ 20	2,0	240	-
Pipe material: PE-RT/AI/PE-RT			
Ø ≤ 20	2,0	240	240
	2,1-7,5		180
20 < Ø ≤ 75	7,5		
Pipe material: PE-X			
Ø ≤ 20	2,0	240	-

INTU FR WRAP

Intumescent pipe wrap

TECHNICAL DATA SHEET

*1 For flexible walls, use INTU FR WRAP L in two rows (SOLUTION DETAILS below).

Table 4 Fire resistance classification for PP pipe penetrations $50 < \varnothing \leq 200$

Pipe material: PP					
INTU FR WRAP type	Diameter $\varnothing$ [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling	Wall compliant *1 / rigid
			EI classification		
55 mm	$50 < \varnothing \leq 55$	1,9 - 12,5	180	240	120
		12,6 - 18,4		-	-
63 mm	$55 < \varnothing \leq 63$	1,9 - 12,5	180	240	120
		12,6 - 18,4		-	-
75 mm	$63 < \varnothing \leq 75$	1,9 - 12,5	180	240	120
		12,6 - 18,4		-	-
82 mm	$75 < \varnothing \leq 82$	2,3 - 8,3	180	240	120
		8,4 - 18,4		-	90
110 mm	$82 < \varnothing \leq 110$	2,7	180	240	120
		2,8 - 18,4		-	90
125 mm	$110 < \varnothing \leq 125$	3,6 - 3,7	-	45	-
		3,8 - 14,8	60	90	
		14,9 - 16,7		45	
160 mm	$125 < \varnothing \leq 160$	5,5 - 6,1	60	90	-
		6,2		-	
200 mm	$160 < \varnothing \leq 200$	7,7	60	45	-

*1 For flexible walls, use INTU FR WRAP L in two rows (SOLUTION DETAILS below).

Table 6 Fire resistance classification for PE-HD, PE, ABS or SAN+PVC pipe penetrations $\varnothing \leq 55$

Pipe material: PE-HD, PE, ABS or SAN+PVC					
INTU FR WRAP type	Diameter $\varnothing$ [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling	Wall compliant *1 / rigid
			EI classification		
32 mm	$\varnothing \leq 32$	2,0 - 3,0	240	240	120
		3,1 - 6,8		-	-
		6,9 - 10,0		-	-
40 mm	$32 < \varnothing \leq 40$	2,2	-	-	120
		2,3 - 3,0	120	240	90
		3,1 - 6,7			
		6,8	240	-	-
50 mm	$40 < \varnothing \leq 50$	6,9 - 10,0	120	-	-
		2,5	-	-	120
		2,6 - 3,0	120	240	90/120*2
		3,1 - 6,7			
55 mm	$50 < \varnothing \leq 55$	6,8	240	-	-
		6,9 - 10,0	120	-	-
		2,6	-	-	120
		2,7 - 3,0	120	240	90/120*2
		3,1 - 6,7			
		6,8	240	-	-

*1 For flexible walls, use INTU FR WRAP L in two rows (SOLUTION DETAILS below).

Table 5 Fire resistance classification for PE-X/Al/PE-X, PP-R, PP-R/Al/PP-R, PP-R/PP-R-GF/PP-R pipe penetrations

Średnica $\varnothing$ [mm]	Grubość ścianki rury [mm]	Ściana sztywna	Strop sztywny
EI classification			
Pipe material: PE-X/Al/PE-X			
$\varnothing \leq 75$	2,0 - 7,4	-	240
	7,5	120	
$20 < \varnothing \leq 75$	7,5	-	-
Pipe material: PP-R			
$\varnothing \leq 20$	3,4	240	-
Pipe material: PP-R/Al/PP-R			
$\varnothing \leq 20$	3,4 - 12,4	-	240
	12,6 - 18,4		-
$20 < \varnothing \leq 75$	12,5		240
	12,6 - 18,4		-
$20 < \varnothing \leq 110$	18,3	240	-
	18,4	-	240
Pipe material: PP-R/PP-R-GF/PP-R			
$\varnothing \leq 20$	2,8 - 12,5	-	240
$20 < \varnothing \leq 75$	12,5		-
	12,6 - 18,2		-
$\varnothing \leq 110$	18,3	180	-
	18,4	-	240

Table 7 Fire resistance classification for PVC-U or PVC-C pipe penetrations $\varnothing \leq 63$

Pipe material: PVC-U or PVC-C					
Typ INTU FR WRAP	Średnica $\varnothing$ [mm]	Grubość ścianki rury [mm]	Ściana sztywna	Strop sztywny	Ściana podatna *1 / sztywna
			EI classification		
32 mm	$\varnothing \leq 32$	1,8 - 3,6	240	240	120
		3,7 - 4,2	180		-
40 mm	$32 < \varnothing \leq 40$	1,8 - 3,6	240	240	120
		3,7 - 4,2	180		-
50 mm	$40 < \varnothing \leq 50$	1,8 - 3,6	240	240	120
		3,7 - 4,2	180		-
55 mm	$50 < \varnothing \leq 55$	1,9 - 3,5	240	240	120
		3,6			-
		3,7 - 4,2			-
63 mm	$55 < \varnothing \leq 63$	1,9 - 3,5	240	240	120
		3,6			-
		3,7 - 4,2	180	-	-

INTU FR WRAP

Intumescent pipe wrap

TECHNICAL DATA SHEET

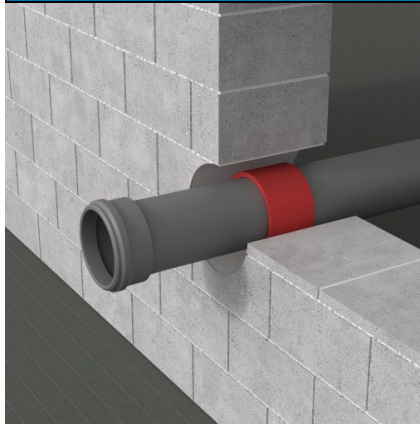
Table 8 Fire resistance classification for PE-HD, PE, ABS or SAN+PVC pipe penetrations $55 < \varnothing \leq 200$

Pipe material: PE-HD, PE, ABS or SAN+PVC					
Typ INTU FR WRAP	Diameter Ø [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling	Wall compliant *1/ rigid
			EI classification		
63 mm	55 <Ø ≤ 63	2,8	-	240	120
		2,9 - 3,0	120		90
		3,1 - 6,7			
		6,8	240	-	-
		6,9-10,0	120	-	-
75 mm	63 <Ø ≤ 75	3,0	-	240	120
		3,1- 3,2	-		90/120*2
		3,3 - 6,7	120		
		6,8	240	-	-
		6,9-10,0	120	-	-
82 mm	75 <Ø ≤ 82	3,6	-	240	120
		3,7 - 5,7	120	120	
		5,8-10,0			
110 mm	82<Ø≤ 110	4,2-5,6	-	-	120
		5,7	120	240	
		5,8-10,0	-	120	
125 mm	110<Ø≤ 125	4,8-5,8	120	240	-
		5,9 - 6,2		120	
		6,3 - 9,4			
		9,5	-	120	
		9,6 - 9,9			
160 mm	125<Ø≤ 160	6,2 - 9,4	120	240	-
		9,5	180		
200 mm	160<Ø≤ 200	6,6 - 7,7	90	90	-
		7,8-11,9	60		

Table 9 Fire resistance classification for PVC-U or PVC-C pipe penetrations $75 < \varnothing \leq 200$

Pipe material: PVC-U or PVC-C						
Typ INTU FR WRAP	Diameter Ø [mm]	Pipe wall thickness [mm]	Rigid wall	Rigid ceiling	Wall compliant *1/ rigid	
			EI classification			
75 mm	63 < Ø ≤ 75	1,9 - 3,5		240	120	
		3,6	240		-	
		3,7 - 4,2	180			
82 mm	75 < Ø ≤ 82	2,1 - 3,4	120	240	120	
		3,5		180		
		3,6	240			
		3,6 - 4,1	180			
		4,2				
110 mm	82 < Ø ≤ 110	2,2	120	240	120	
		2,3 - 3,5		180		
		3,6	240			
		3,6 - 4,1	180			
		4,2				
125 mm	110 < Ø ≤ 125	2,5 - 3,3	120	120	-	
		3,4 - 3,9		240		
		4,0 - 5,3				240
		5,4 - 6,1				-
		6,2				
160 mm	125 < Ø ≤ 160	3,2 - 6,1	-	120	-	
		6,2	240			
		6,3 - 7,6	180			240
		7,7				-
		7,8 - 9,5				
200 mm	160 < Ø ≤ 200	4,4 - 5,8	-	120	-	
		5,9	180			
		6,0 - 7,7	120			240

SOLUTION DETAILS



Rigid wall with a thickness of $A \geq 150$ mm

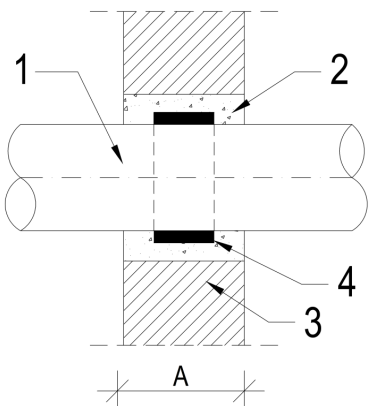


Fig. 1. Combustible pipe $A \geq 150$ mm

1 – combustible pipe
2 – cement mortar
3 – rigid wall
4 – INTU FR WRAP installed in the wall axis

A susceptible wall with a thickness of $A \geq 125$ mm

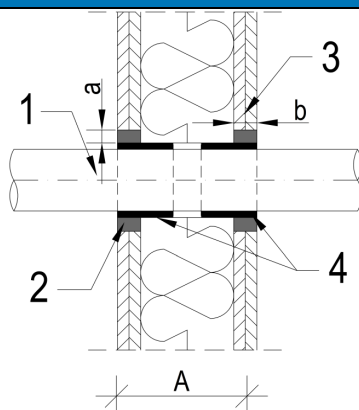
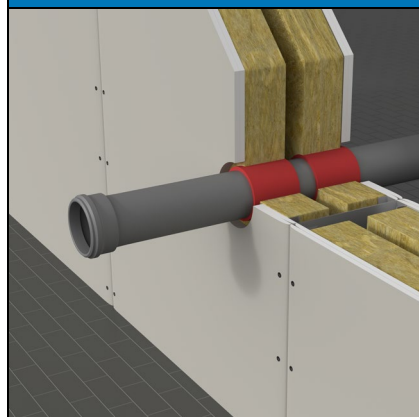


Fig. 2. Pipe in a flexible wall $A \geq 125$ mm

1 – combustible pipe
2 – filling with **ALFA FR MASTIC**:
width $0 \leq a \leq 20$ mm;
depth $b \geq 25$ mm
3 – susceptible wall
4 – 2 x **INTU FR WRAP**, installed in two rows, flush with the edge of the partition

Rigid ceiling with a thickness of $A \geq 150$ mm

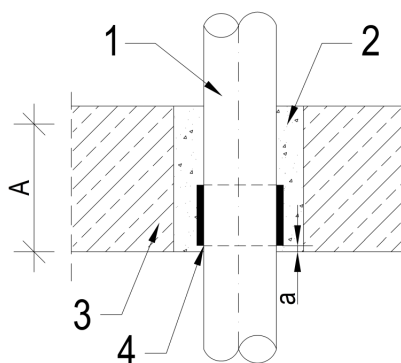
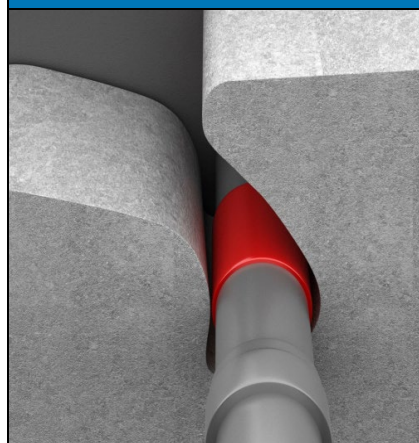


Fig. 3. Pipe in a rigid ceiling $A \geq 150$ mm

1 – combustible pipe
2 – cement mortar
3 – ceiling
4 – **INTU FR WRAP**, installed at a distance of $a \leq 10$ mm from the bottom edge of the ceiling