

FLAMRO Variant N III Wrap

FI 90 / 120 / 240

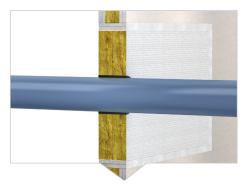
ETA-16-0056 Certificate of constancy of performance 0761 - CPR - 0500 UL approved

Special Benefits

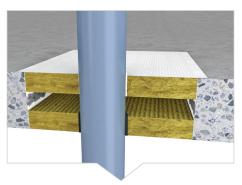
- Only one product for a wide range of pipes
- Easy and excellent usability
- Flexibel and easy installation
- Suitable for the application in wet and humid areas

Permitted Configuration

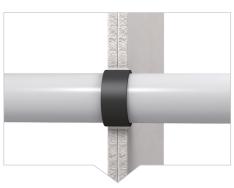
- Plastic pipes up to Ø 200 mm
- Insulated and uninsulated combustible pipes and sound-isolated sewer pipes
- Uninsulated plastic pipes
- Synthetic rubber insulated plastic pipes up to Ø 110 mm



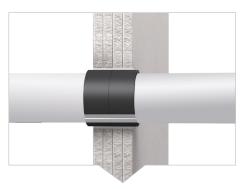
For the application in the BC Seal FM I Combi Seal in walls, the intumescent material must be wrapped around the pipe on both sides.



For floor installations, the intumescent material must be provided only on the underside.



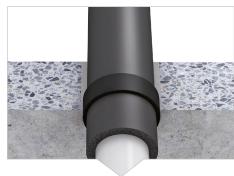
For installations in shaft walls $\ge 2 \times 20$ mm, the intumescent material must be wrapped around the pipe only once.



For EI 120 requirements in shaft walls, the intumescent material must be wrapped around the pipe on both sides.



For drywall partitions and solid wall installations, the intumescent material must be provided on both sides.



For floor installations, the intumescent material must be provided only on the underside.

Form of Delivery

Article Description	Content / Dimensions	Art. No.
FLAMRO Variant N III Wrap,	12500 x 50 x 2 mm	15512
self-adhesive	12500 X 50 X Z IIIIII	13312

Installation Data

	Rigid wall	Solid floors	Lightweight partition walls			
Wall/floor thickness	min. 100 mm	min. 150 mm	min. 100 / 94 mm			
Max. pipe diameter	Ø < 110 / 200 mm	Ø < 100 / 200 mm	Ø < 110 / 200 mm			



How much material is required?

Number of layers Variant N III Wrap

Type of pipes multi-layer composite pipes e.g.:	Pipe diameter (mm)	Pipe wall thickness (mm)	Insulation	Number of layers (wall)	Number of layers (floor)	Fire resistance rating	
aquatherm green pipe, Uponor MLC pipe white, alpex-duo multilayer	≤ 40		without	2	2	EI 90 / 120 U/C	
	> 40 ≤ 75	3,5 - 15,2	PE acoustic insulation ≤ 4 mm	3	3	EI 90 / 120 U/C EI 90 / 120 U/C	
alpex-duo multilayer	> 75 < 110		Synthetic rubber insulation ≤ 31,5 mm	4	4		
Type of pipes	Pipe diameter (mm)	Pipe wall thickness (mm)	Sealing type	Number of layers (wall)	Number of layers (floor)	Fire resistance rating	
PVC	≤ 50	2,4		2	2	EI 60/120 U/U	
PVC	≤ 75	3,6		3,6		3	EI 120 U/U
PVC	≤ 110	5,3		4	4	EI 90/120 U/U	
PVC	≤ 160	7,7	Flamro KSL		6	EI 90 / 120 U/U	
PP	≤ 50	2,9	Combined Penetration Seal	2	2	EI 60/120 U/U	
PP	≤ 75	4,3		3	3	EI 120 U/U	
PP	≤ 110	6,3		4	6	EI 90/120 U/U	
PP	≤ 160	9,1		6	6	EI 90 / 120 U/U	
Type of pipes	Pipe diameter (mm)	Pipe wall thickness (mm)	Sealing type	Number of layers (wall)		Fire resistance rating	
PVC	≤ 50	3,7		2		EI 90 U/U	
PE	≤ 50	4,6	Shaft walls ≥ 2 x 20 mm	2		EI 90 U/U	
PP	≤ 50	4,6		2		EI 90 U/U	

Number of layers and according length of band

	Type of pipes PVC, PE, PP - Pipes Rohre with synthetic rubber for ceilings													
	ceilings Pipe diameter (mm)		32 40			50		63			90		110	
Number of layers		3 (*4)		3 (*4)		3 (*4) 3 (*4)		[*4]	3 (*4)		3 (*4)		3 (*4)	
	Total length for thickness 9 mm	520		600		705	840		965		1120		1330	
	Total length for thickness 13 mm	605		690		790	790 925		1050		1205		1420	
	Total length for thickness 19 mm (*4)	1015		1130		1280	1460		1640		1850		2140	
	Total length for thickness 25 mm (*4)	1190		1310		1450	1640		1810		2030		2320	
	Total length for thickness 32 mm (*4)	1390		1510		1650 1840		840	0 2010		2230		2520	
	Type of pipes	PVC, PE, PP - Pipes Rohre with synthetic rubber for walls												
For walls	Pipe diameter (mm)	32	32 40 50 63 75 90 110											
	Number of layers	3 (*4	()	3 (*4)		3 (*4)	2 x	3 (*4)	3 (*4)		3 (*4)		3 (*4)	
	Total length for thickness 9 mm	2 x 5	20	2 x 600		2 x 705	2 :	x 840	2 x 965		2 x 1120		2 x 1330	
	Total length for thickness 13 mm	2 x 605		2 x 690	90 2x 790		2:	2 x 925		1	2 x 1205		2 x 1420	
with synthetic rubber for walls	Total length for thickness 19 mm (*4)	2x 10	15	2 x 1130		2 x 1280	2 x	2 x 1460 2 x 1640			2 x 1850		2 x 2140	
	Total length for thickness 25 mm (*4)	2 x 1190		2x 1310		2 x 1450		2 x 1640		1	2 x 2030		2 x 2320	
	Total length for thickness 32 mm (*4)	2x 1390		2 x 1510		2 x 1650		2 x 1840			2 x 2230		2 x 2520	
	Type of pipes	Composite Pipe												
For ceilings	Pipe diameter (mm)	14	16	18	20	26	32	40	50	63	75	90	110	
	Number of layers	2	2	2	2	2	2	2	3	3	3	4	4	
	otal length for floors (mm)	97	111	125	138	180	220	276	520	680	780	1300	1590	
	Number of layers	2	2	2	2	2	2	2	2	3	5	5	5	
	Total length for thickness 9 mm	220	235	250	400	445	485	540	610	850	2040	2320	2680	
with synthetic rubber for floors	Total length for thickness 13 mm	280	290	305	320	360	405	460	530	930	1830	2100	2460	
	Total length for thickness 19 mm	360	380	390	402	445	485	540	610	1050	2045	2220	2680	
	Total length for thickness 25 mm	445	460	470	485	530	570	625	700	1180	2260	2530	2900	
	Type of pipes	Composite Pipe												
For walls	Pipe diameter (mm)	14	16	18	20	26	32	40	50	63	75	90	110	
Uninsulated pipes	Number of layers	2	2	2	2	2	2	2	3	3	3	4	4	
	Total length for walls (mm)	2 x 97	2 x 111	2 x 125	2 x 138	2 x 180	2 x 220	2 x 276	2 x 520	2 x 680	2 x 780	2 x 1300	2 x 1590	
	Number of layers	2	2	2	2	2	2	2	2	3	5	5	5	
with synthetic rubber for walls	Total length for thickness 9 mm	2 x 220	2 x 235	2 x 250	2 x 400	2 x 445	2 x 485	2 x 540	2 x 610	2 x 850	2 x 2040	2 x 2320	2 x 2680	
	Total length for thickness 13 mm	2 x 280	2 x 290	2 x 305	2 x 320	2 x 360	2 x 405	2 x 460	2 x 30	2 x 930	2 x 1830	2 x 2100	2 x 2460	
	Total length for thickness 19 mm	2 x 360	2 x 380	2 x 390	2 x 402	2 x 445	2 x 485	2 x 540	2 x 610	2 x 1050	2 x 2045	2 x 2220	2 x 2680	
	Total length for thickness 25 mm	2 x 445	2 x 460	2 x 470	2 x 485	2 x 530	2 x 570	2 x 625	2 x 700	2 x 1180	2 x 2260	2 x 2530	2 x 2900	