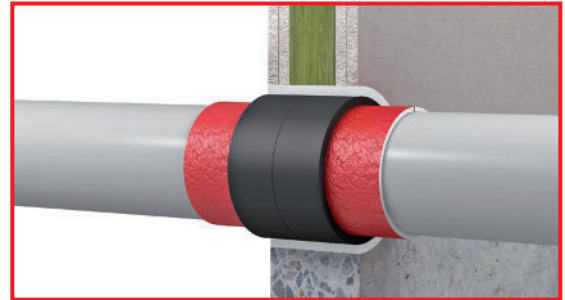


CORH N III

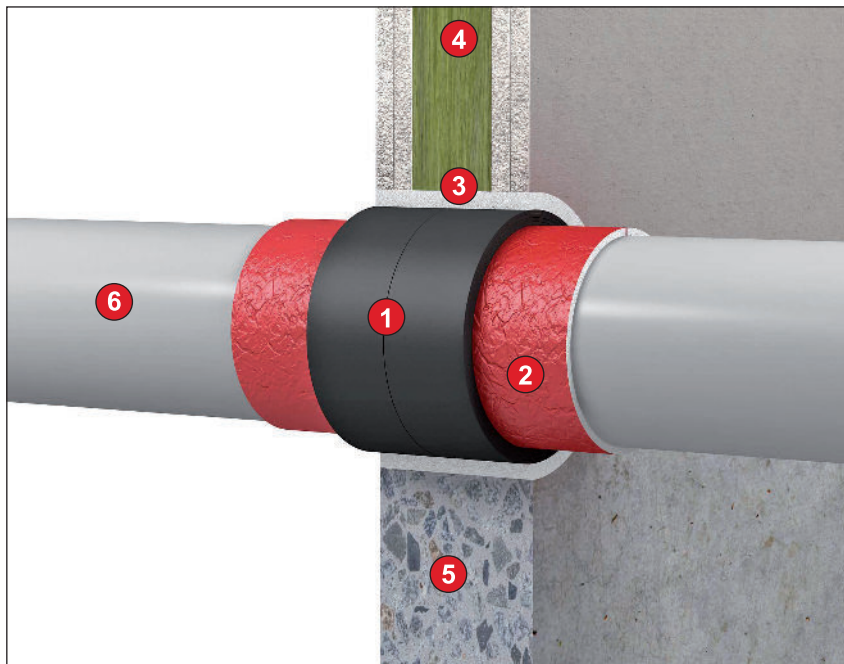
This assembly instruction does not replace the usage information contained in the ETA. This instruction and the ETA must be available at the point of use!

All documents can be downloaded from www.flamro.de/services/downloads.



Description

The CORH N III consists of a high performance intumescent material that is wrapped around the pipe to be sealed off in multiple layers, with or without insulation. In case of fire, the intumescent material responds with strong expansion pressure and closes the structural element opening permanently, preventing the ingress of fire and smoke. The wrap is attached to both sides on walls, and from bottom side on floors.



- 1 CORH N III
- 2 Sound insulation
- 3 Fire Protection mortar / gypsum
- 4 Flexible wall
- 5 Rigid wall
- 6 Plastic pipe

CORH N III

Areas of application

CORH N III wrap is classified according to EN 13501-2 and can be installed in rigid walls, rigid floors, flexible walls and in mineral fibre sealants as well as in shaft walls according to the listed tables.

Space-enclosing component	Thickness	Pipe diameter
Flexible walls (with steel or wooden frames)	≥ 94 mm	≤ 110 mm
Rigid walls (porous concrete, concrete, brickwork)	≥ 100 mm	≤ 110 mm
Rigid floors (porous concrete, concrete)	≥ 150 mm	≤ 160 mm
Mineral fibre sealant	≥ 100 mm	≤ 160 mm
Shaft walls	≥ 2 x 20 mm	≤ 110 mm

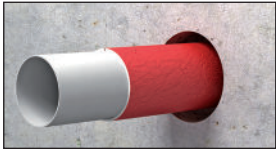
Permitted tubes	Outer diameter	Pipe wall thickness
Plastic pipes (PVC pipes, PP pipes and PE pipes)	≤ 160 mm / pipe	up to max. 12.3 mm
Multi-layer composite pipes	≤ 110 mm / pipe	according to system manufacturer

Permitted insulation	Thickness
PE foam strips	≤ 4 mm
Synthetic rubber	≤ 31.5 mm

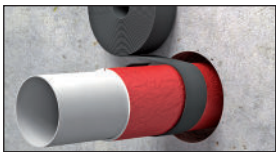
Wall application	Page 4 - 8
Floor application	Page 9 - 14
Mineral fibre sealant wall application	Page 15
Mineral fibre sealant floor application	Page 16
Shaft wall application	Page 17
Shaft wall with double wall application	Page 18

CORH N III

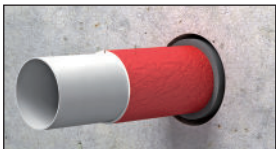
Assembly steps



The strip, which will foam in case of fire, is wrapped around the pipe with the necessary number of layers (see tables below) around the pipe and mounted flush with the outer wall surfaces or bottom side of the floor.



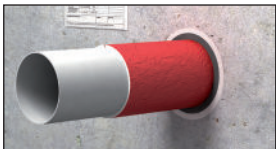
The strip is wrapped around the pipe, before the opening, and the individual layers of the strip are affixed to each other by pull off the self-adhesive protective film. With the non-self-adhesive variant, the end of the strip must be secured with adhesive tape.



Then, the strip is pushed into the respective component opening as deep as possible so it is flush with the component.



Remaining annular gaps/joins in the component openings must be filled with mortar or gypsum to fill any gaps.



Then, the pipe bushing must be permanently labelled with a sign. The length of the intumescent strip or the number of coils is defined according to the table below and the strip is cut to length using scissors or a knife.

For further information regarding installation see ETA-16/0056.

CORH N III

Wall installation

Pipes	PVC-U pipes according to EN 1452-1
Insulation	4 mm PE - sound insulation (e.g. - Thermocompact TF) Synthetic rubber AF/Armaflex AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe ø (mm)	Wall thickness (mm)	Number of layers CORH N III	Insulation thickness (mm)	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8 - 5.6	2x2	without	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - 12.3	2x3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8 - 5.6	2x3	4 mm PE	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - ≤ 2.2	2x4		EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	2.2 - 12.3	2x3		EI 120 - U/C	E 120 - U/C
Insulation synthetic rubber AF Armaflex in thicknesses AF 1 - AF 5					
≤ 50	1.8 - 5.6	2x3	up to 9.5 mm	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	5.6 - 12.3	2x3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8 - 5.6	2x3	up to 31.5 mm	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - 2.7	2x3	17- 18 mm	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - 12.3	2x4	up to 31.5 mm	EI 120 - U/C	E 120 - U/C

CORH N III

Pipes	PE-HD pipes according to EN 1519-1
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber AF/Armaflex AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8	2x2	without	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8	2x3	4 mm PE	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
Insulation synthetic rubber like AF Armaflex in thickness groups AF 1 - AF 5					
≤ 50	1.8	2x3	up to 9.5 mm	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 10	2x4	up to 31.5 mm	EI 120 - U/C	E 120 - U/C

Pipes	PP pipes according to EN ISO 15494
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber AF/Armaflex AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe ø (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8	2x2	without	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8	2x2	4 mm PE	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
Insulation synthetic rubber like AF Armaflex in thickness groups AF 1 - AF 5					
≤ 50	1.8	2x3	up to 9.5 mm	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 75	1.8 - 10	2x3		EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 10	2x4	up to 31.5 mm	EI 120 - U/C	E 120 - U/C

Tolerances Armaflex AF: AF 1 - AF 2 + - 1.0 mm; AF 3 - AF 4 + - 1.5 mm, AF 5 + - 2.5 mm

Pipes	Wavin SiTECH pipes
Insulation	4 mm PE sound insulation (e.g. Thermacompact TF)

Pipe ø (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	2.0	2x2	4 mm PE Sound insulation like Thermacompact TF	EI 120 - U/C	E 120 - U/C
> 50 – ≤ 75	2.0 - 2.55	2x3		EI 120 - U/C	E 120 - U/C
> 50 – ≤ 90	2.0 - 3.05	2x4		EI 120 - U/C	E 120 - U/C
> 50 – ≤ 110	2.0 - 3.7	2x5		EI 120 - U/C	E 120 - U/C

Pipes	Aquatherm green pipe MS
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber AF/Armaflex AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	5.6	2x2	without, with PE sound insulation or with synthetic rubber AF Armaflex up to 31.5 mm	EI 120 - U/C	E 120 - U/C
$> 40 - \leq 75$	5.6 - 10.4	2x3		EI 120 - U/C	E 120 - U/C
$> 40 - \leq 110$	10.4 - 15.2	2x4		EI 120 - U/C	E 120 - U/C

Pipes	Uponor MLC pipe white
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber AF/Armaflex AF- 1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe ø (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	5.6	2x2	without, PE or synthetic rubber Armaflex AF	EI 120 - U/C	E 120 - U/C
> 40 – ≤ 75	5.6 - 10.4	2x3	without	EI 90 - U/C	E 120 - U/C
		2x4		EI 120 - U/C	E 120 - U/C
		2x3	4 mm PE	EI 120 - U/C	E 120 - U/C
		2x3	up to 31.5 mm	EI 120 - U/C	E 120 - U/C
> 40 – ≤ 110	10.4–≤15.2	2x4	without	EI 90 - U/C	E 120 - U/C
		2x5		EI 120 - U/C	E 120 - U/C
		2x4	4 mm PE	EI 120 - U/C	E 120 - U/C
		2x4	up to 31.5 mm	EI 120 - U/C	E 120 - U/C
120 mm wall thickness					
> 40 – ≤ 110	10.4 – ≤ 15.2	2x4	without	EI 120 - U/C	E 120 - U/C

Pipes		Alpex Duo multilayer pipes			
Insulation		PE sound insulation or Armaflex AF thickness group AF 1 - AF 5			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	3.5	2x2	without, PE or with synthetic rubber like Armaflex AF	EI 120 - U/C	E 120 - U/C
$> 40 - \leq 75$	3.5 - 5.0	2x3	without	EI 120 - U/C	E 120 - U/C
		2x3	up to 9.5 mm	EI 90 - U/C	E 120 - U/C
		2x4	12.5 to 18 mm	EI 90 - U/C	E 120 - U/C
		2x4	25 to 31.5 mm	EI 120 - U/C	E 120 - U/C
		2x5	up to 31.5 mm	EI 120 - U/C	E 120 - U/C

Floor installation

Pipes	PVC-U pipes according to EN 1452-1
Insulation	4 mm PE - sound insulation (e.g. - Thermacompact TF) Synthetic rubber like AF/Armaflex thickness groups AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8 - 5.6	2	without	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	1.8 - 12.3	3		EI 120 - U/C	E 120 - U/C
50	3.7	2		EI 240 - U/C	E 240 - U/C
≤ 110	1.8 - 12.3	3	4 mm PE	EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 12.3	3	up to 9.5 mm	EI 90 - U/C	E 90 - U/C
≤ 110	12.3	3	up to 18 mm	EI 90 - U/C	E 90 - U/C
≤ 110	1.8 - <12.3	4	up to 23 mm	EI 90 - U/C	E 90 - U/C
110	12.3	4	15.5 - 23 mm	EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - <12.3	5	12.5 - 31.5 mm	EI 90 - U/C	E 90 - U/C
≤ 110	12.3	5		EI 120 - U/C	E 120 - U/C
≤ 160	4.7	6	without	EI 240 - U/C	E 240 U/C

Pipes	PE-HD pipes according to EN 1519-1
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber like AF/Armaflex thickness groups AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORH N III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8	2	without	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	1.8 - 10	3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8	3	4 mm PE	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	1.8 - 10	3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8	3	up to 9.5 mm	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 75$	1.8 - 1.9	3		EI 120 - U/C	E 120 - U/C
50	4.6	2	without	EI 240 - U/C	E 240 - U/C
$> 75 - \leq 110$	1.9 - 10	3	up to 9.5 mm	EI 90 - U/C	E 90 - U/C
110	10	3		EI 90 - U/C	E 120 - U/C
110	10	4		EI 90 - U/C	E 120 - U/C
110	10	3	9.5 - 18 mm	EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 10	4	9.5 - 31.5 mm	EI 120 - U/C	E 120 - U/C
110	6.3	4	without	EI 240 - U/C	E 240 - U/C

Pipes	PP pipes according to EN ISO 15494
Insulation	4 mm PE - sound insulation (e.g. - Thermacompact TF) Synthetic rubber like AF/Armaflex thickness groups AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8	2	without	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - 10	3		EI 120 - U/C	E 120 - U/C
≤ 50	1.8	2	4 mm PE	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	1.8 - 10	3		EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 10	3	up to 9.5 mm	EI 120 - U/C	E 120 - U/C
≤ 110	1.8 - 10	4	up to 31.5 mm	EI 120 - U/C	E 120 - U/C

Pipes	Wavin SiTECH pipes
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF)

Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	2.0	2	4 mm PE sound insulation	EI 120 - U/C	E 120 - U/C
> 50 - ≤ 75	2.0 - 2.55	3		EI 120 - U/C	E 120 - U/C
> 50 - ≤ 90	2.0 - 3.05	4		EI 120 - U/C	E 120 - U/C
> 50 - ≤ 110	2.0 - 3.7	5		EI 120 - U/C	E 120 - U/C

Pipes		POLO-KAL NG pipes			
Insulation		4 mm PE sound insulation (e.g. - Thermacompact TF)			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	2.0	2	4 mm PE sound insulation	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 75$	2.0 - 2.5	3		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 90$	2.0 - 2.9	4		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	2.0 - 3.4	5		EI 120 - U/C	E 120 - U/C

Pipes		Geberit Silent PP pipes			
Insulation		4 mm PE sound insulation (e.g. - Thermacompact TF)			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	2.0	2	4 mm PE sound insulation	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 75$	2.0 - 2.5	3		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 90$	2.0 - 3.1	4		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	2.0 - 3.6	5		EI 120 - U/C	E 120 - U/C

Pipes		Rehau Raupiano pipes			
Insulation		4 mm PE sound insulation [e.g. - Thermacompact TF]			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 50	1.8	2	4 mm PE sound insulation	EI 120 - U/C	E 120 - U/C
$> 50 - \leq 75$	1.8 - 2.1	3		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 90$	1.8 - 2.4	4		EI 120 - U/C	E 120 - U/C
$> 50 - \leq 110$	1.8 - 2.7	5		EI 120 - U/C	E 120 - U/C

Pipes		PVC pipes and multilayer pipes like Unipipe, Alpex Duo, Uponor MLC pipe white and Aquatherm green pipe MS with zero relative distance			
Insulation		4 mm PE sound insulation [e.g. - Thermacompact TF] Synthetic rubber like AF/Armaflex thickness group AF-1 to AF-5 (up to a thickness of 31.5 mm, tolerances + - 2.5 mm)			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 110	1.8 - 12.3	2	without / 4 mm PE / Armaflex AF up to 9.5 mm	EI 90 - U/C	E 90 - U/C
≤ 110	1.8 - 12.3	3	Armaflex AF 9.5 - 31.5 mm		

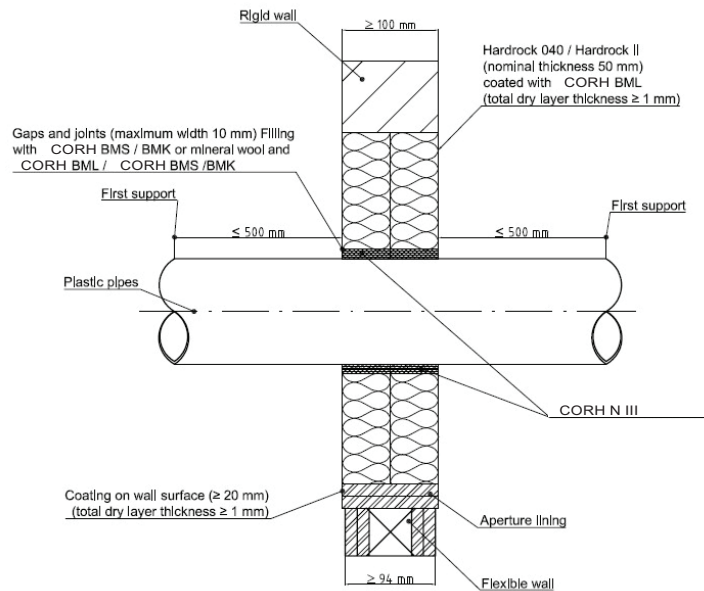
Pipes		Aquatherm green pipe MS			
Insulation		4 mm PE sound insulation [e.g. - Thermacompact TF] Synthetic rubber like AF/Armaflex thickness group AF-1 to AF-5 (up to a thickness of 31.5 mm, tolerances + - 2.5 mm)			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	5.6	2	Without / PE / synthetic rubber Armaflex AF	EI 120 - U/C	E 120 - U/C
$> 40 - \leq 75$	5.6 - 10.4	3		EI 120 - U/C	E 120 - U/C
$> 40 - \leq 110$	10.4 - 15.2	4		EI 120 - U/C	E 120 - U/C

Pipes		Uponor MLC pipe white			
Insulation		4 mm PE sound insulation [e.g. - Thermacompact TF] Synthetic rubber like AF/Armaflex thickness group AF-1 to AF-5 (up to 31.5 mm thickness, tolerances + - 2.5 mm)			
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	5.6	2	Without / PE / Synthetic rubber Armaflex AF	EI 120 - U/C	E 120 - U/C
$> 40 - \leq 75$	5.6 - 10.4	3		EI 120 - U/C	E 120 - U/C
$> 40 - \leq 110$	10.4 - 15.2	4		EI 120 - U/C	E 120 - U/C

Pipes	Alpex Duo multilayer pipes
Insulation	4 mm PE sound insulation (e.g. - Thermacompact TF) Synthetic rubber like AF/Armaflex thickness group AF-1 to AF-5 (up to a thickness of 31.5 mm, tolerances + - 2.5 mm)

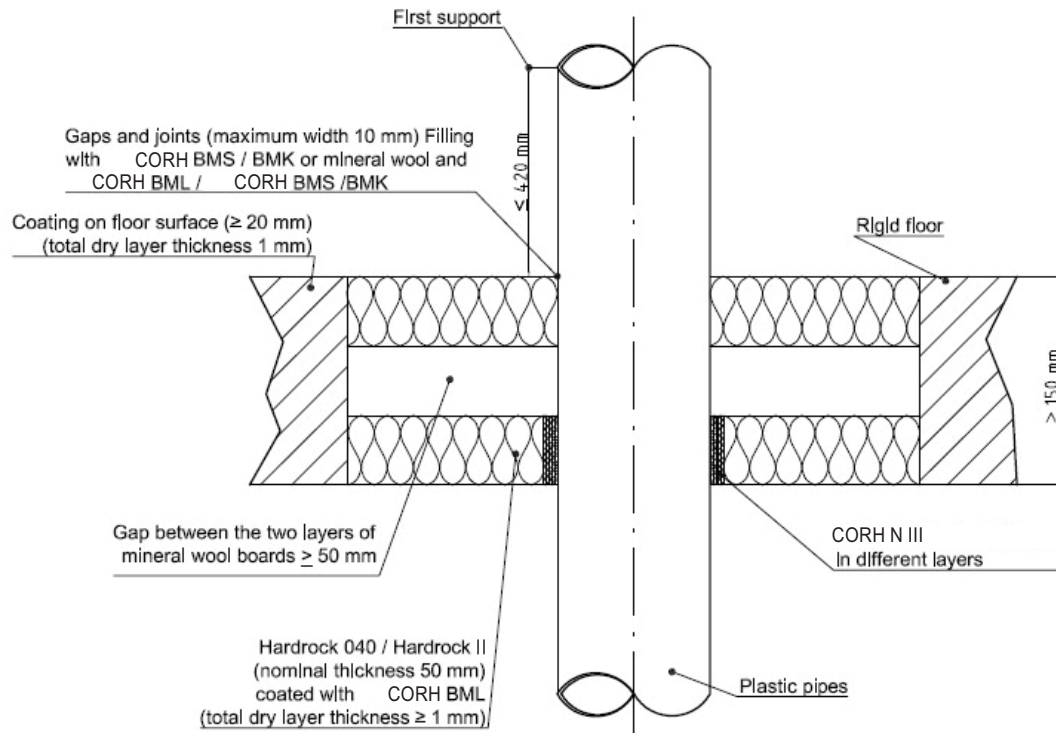
Pipe \varnothing (mm)	Wall thickness (mm)	Number of layers CORHN III	Insulation	Maximum achieved classification	
				E = Integrity and I = Insulation	E = Integrity
≤ 40	3.5	2	without	EI 120 - U/C	E 120 - U/C
$> 40 - \leq 75$	3.5 - 5.0	3	without	EI 120 - U/C	E 120 - U/C
		3	4 mm PE	EI 90 - U/C	E 120 - U/C
		5		EI 120 - U/C	E 120 - U/C
		3	Armaflex AF up to 9.5 mm	EI 120 - U/C	E 120 - U/C
		4	Armaflex AF up to 31.5 mm	EI 120 - U/C	E 120 - U/C

Application in 2x50mm mineral fibre sealant in the wall



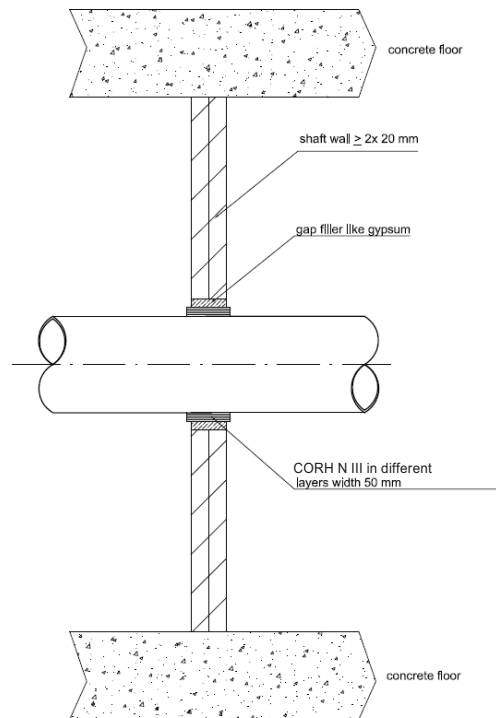
Pipe and number of layers CORH N III	E = Integrity and I = Insulation	E = Integrity
PVC ø 50 x 2.4 mm - 2 layers	EI 120 U / U	E 120 U / U
PVC ø 75 x 3.6 mm - 3 layers	EI 120 U / U	E 120 U / U
PVC ø 110 x 5.3 mm - 4 layers	EI 120 U / U	E 120 U / U
PP ø 50 x 2.9 mm - 2 layers	EI 120 U / U	E 120 U / U
PP ø 75 x 4.3 mm - 3 layers	EI 120 U / U	E 120 U / U
PP ø 160 x 9.1 mm - 6 layers	EI 120 U / U	E 120 U / U

Application in 2x50 mm mineral fibre sealant in the floor



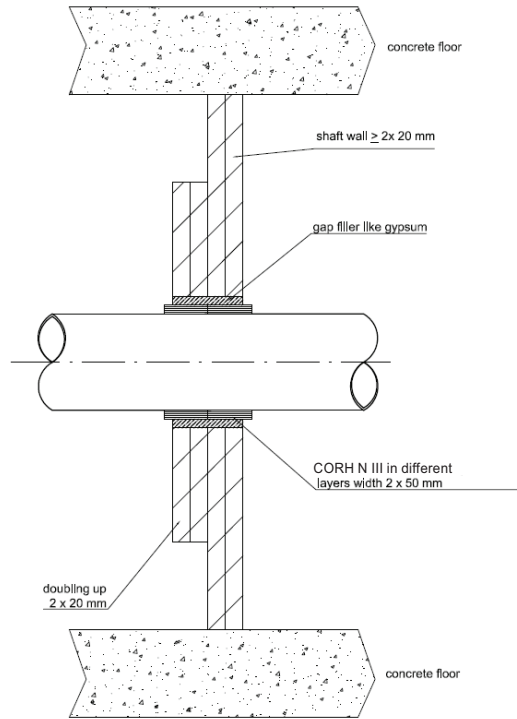
Pipe and number of layers CORH N III	E = Integrity and I = Insulation	E = Integrity
PVC \varnothing 50 x 2.4 mm - 2 layers	EI 60 U / U	E 120 U / U
PVC \varnothing 75 x 3.6 mm - 3 layers	EI 120 U / U	E 120 U / U
PVC \varnothing 110 x 5.3 mm - 4 layers	EI 90 U / U	E 120 U / U
PVC \varnothing 160 x 7.7 mm - 6 layers	EI 90 U / U	E 120 U / U
PP \varnothing 50 x 2.9 mm - 2 layers	EI 60 U / U	E 120 U / U
PP \varnothing 75 x 4.3 mm - 3 layers	EI 120 U / U	E 120 U / U
PP \varnothing 110 x 6.3 mm - 4 layers	EI 90 U / U	E 120 U / U
PP \varnothing 160 x 9.1 mm - 6 layers	EI 120 U / U	E 120 U / U

Application in a min. 40 mm thick shaft wall



Pipe and number of layers CORH N III	E = Integrity and I = Insulation	E = Integrity
PE ø 110 x 6.3 mm - 4 layers	EI 90 U / C	E 90 U / C
PP ø 110 x 6.3 mm - 4 layers	EI 90 U / C	E 90 U / C
PVC ø 110 x 5.3 mm - 4 layers	EI 90 U / C	E 90 U / C
PE ø 50 x 4.6 mm - 2 layers	EI 90 U / U	E 90 U / U
PP ø 50 x 4.6 mm - 2 layers	EI 90 U / U	E 90 U / U
PVC ø 50 x 3.7 mm - 2 layers	EI 90 U / U	E 90 U / U

Application in a min. 40 mm thick shaft wall with double wall



Pipe and number of layers CORH N III	E = Integrity and I = Insulation	E = Integrity
PE ø 110 x 6.3 mm - 4 layers	EI 120 U / C	E 120 U / C
PP ø 110 x 6.3 mm - 4 layers	EI 120 U / C	E 120 U / C
PVC ø 110 x 5.3 mm - 4 layers	EI 120 U / C	E 120 U / C