

MULTITUBE WRAP

Technical Approval: **ETA-15/0511**
 CE Mark: **1488-CPR-0529/W**
 Hygienic Certificate: **HK/B/0227/01/2014**
 Declaration of Conformity: **CARBO/008 17-10-2016**



TECHNICAL DATA:

Fire resistance class	up to EI 120 C/U,UC,C/C
Color	dark graphite
Environmental class	Z1,Z2
Storage temperature range	from + 5 °C to +35 °C
Shelf life, to application with no limit	no limit, recommended no longer than 24 months
Commercial package	30 m roll form
Linear dimensions (thickness x width)	(2.5, 4.0) x 60 mm (4.8) x 100 mm

PRODUCT DESCRIPTION:

Multitube Wrap is the tape wrapped on the drum. Curled from the drum and cut. Multitube Wrap is made of a mixture of polymers and fillers that causing swelling of the band in case of fire.

DESTINY:

Multitube Wrap is designed to make the fireproof penetration seals through the walls or floors through which passes flammable pipes or non flammable pipes insulated with combustible synthetic foam type FEF (Kaflex or Armaflex) pass. It can also be used to seal the cable bundles passing through the walls or floors.

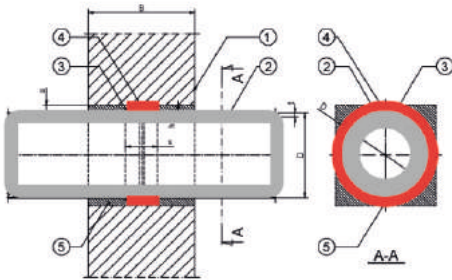
APPLICATION:

1. Install the pipe
2. Prepare the Multitube Wrap to assembly. Number of wraps and the total thickness of tapes necessary to achieve the desired fire resistance is given in the table in the ETA 15/0511 or in the tables given in the following catalog.
3. Wrap the tube with Multitube Wrap. The wraps supposed to be wound on each other to produce a combined required thickness in one or two rows always next to each other. Two rows are used when the required width is 120 mm and we have a wrap with a width of 60 mm.
4. Wounded wrap slide into the hole so as to be located symmetrically in the middle of the width of the wall. In order to protect the wrap from unwinding or slipping out, wrap should be stabilized with electric, elastic band used for the installation electrical cables or other adhesive tape.
5. Mark the made penetration seal to the pipe with the filled information imprint supplied together with each drum.

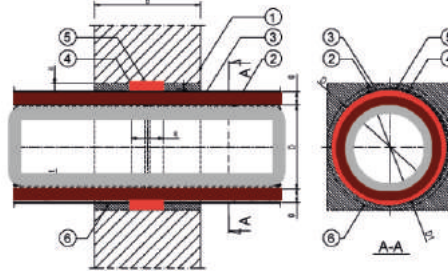


SELECTED EXAMPLES OF APPLICATION

Flammable pipe penetration seal in rigid wall with use of Multitube Wrap



Steel pipe with flammable insulation penetration seal in the rigid wall, made with use of Multitube Wrap.



Cable bundle penetration seal in rigid floor, made with use of Multitube Wrap.

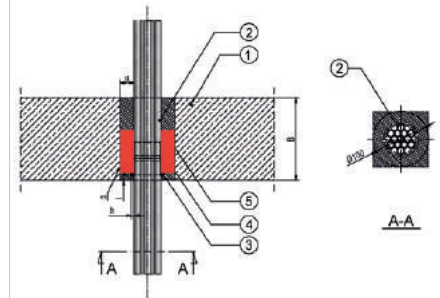


TABLE OF LENGTH SELECTION AND NUMBER OF WRAPS WITH USE OF MULTITUBE WRAP FOR PE-X PIPES

Floor EI 120 Class Width 150 mm, density 1700 kg/m ³				Wall EI 120 Class Width up to 150 mm, density 600 kg/m ³		
Outer diameter PE-X pipe	Multitube Wrap Type	Number of wraps with use of Multitube Wrap	Wrap length to cut	Outer diameter PE-X pipe	Number of wraps with use of Multitube Wrap	Wrap length to cut
mm	mm x mm		mm	mm		mm
up to 17	60x2,5	2	154	17	2	154
	60x4	1	25	17	1	79
	100x4,8	1	30	17	1	84
up to 50	2x60x2,5	2	361	50	2	361
	60x4	1	25	50	1	182
	100x4,8	1	30	50	1	187

TABLE OF LENGTH SELECTION AND NUMBER OF WRAPS WITH USE OF MULTITUBE WRAP FOR CABLE BUNDLES

Floor EI 120 Class Width 150 mm, density 1700 kg/m ³				Wall EI 120 Class Width up to 150 mm, density 600 kg/m ³		
Outer diameter cable bundles	Multitube Wrap Type	Number of wraps with use of Multitube Wrap	Wrap length to cut	Outer diameter cable bundles	Number of wraps with use of Multitube Wrap	Wrap length to cut
mm	mm x mm		mm	mm		mm
up to 50	60x2,5	2	361	50	2	361
	60x4	2	75	50	2	389
	100x4,8	2	90	50	2	404
up to 100	2x60x2,5	2	675	100	2	675
	2x60x4	2	75	100	2	703
	100x4,8	2	90	100	2	718

TABLE OF LENGTH SELECTION AND NUMBER OF WRAPS WITH USE OF MULTITUBE WRAP FOR PVC, PEHD, PE, PP, ABS, PVC SAN PIPES

Outer diameter of the flammable pipes	Select the type of Multitube Wrap			FLOOR EI 120 CLASS Width 150 mm, density 1700 kg/m ³			WALL EI 120 CLASS Width up to 150 mm, density 600 kg/m ³			Pipe penetration seal in wall and floor for selected from ETA 15/0511 flammable pipe wall thickness					
	Selected from ETA width of Multitube Wrap	Selected from ETA thickness of Multitube Wrap	Number of wraps with use of Multitube Wrap	Number of wraps in one row with use of Multitube Wrap	Wrap length to cut in one row of Multitube Wrap	Number of wraps in one row with use of Multitube Wrap	Wrap length to cut in one row of Multitube Wrap	FLOOR EI 120 CLASS Width 150 mm density 1700 kg/m ³			FLOOR EI 120 CLASS Width 150 mm density 600 kg/m ³				
								PVC	PEHD/PE/ABS/SAN +PVC	PP	PVC	PEHD/PE/ABS/SAN+PVC	PP		
mm	mm	mm			mm	mm	mm	mm	mm	mm	mm	mm	mm		
15	60	2,5	1	1	63	1	63	1,6-4	2,7-7,4	1,8-4	1,9-2,2	2,4-8	1,8-4		
	60	4,0	1	1	72	1	72	2,2-5,1	3-8	2,6-5,5	2,3-3,6	3,8-8,7	2,5-5,5		
	100	4,8	1	1	77	1	77	2,2-5,1	3-9,6	2,6-5,5	2,3-3,6	3,8-9,2	2,5-5,5		
25	60	2,5	1	1	94	1	94	1,6-4	2,7-7,4	1,8-4	1,9-2,2	2,4-8	1,8-4		
	60	4,0	1	1	104	1	104	2,2-5,1	3-8	2,6-5,5	2,3-3,6	3,8-8,7	2,5-5,5		
	100	4,8	1	1	109	1	109	2,2-5,1	3-9,6	2,6-5,5	2,3-3,6	3,8-9,2	2,5-5,5		
32	60	2,5	1	1	116	1	116	1,6-4	2,7-7,4	1,8-4	1,9-2,2	2,4-8	1,8-4		
	60	4,0	1	1	126	1	126	2,2-5,1	3-8	2,6-5,5	2,3-3,6	3,8-8,7	2,5-5,5		
	100	4,8	1	1	131	1	131	2,2-5,1	3-9,6	2,6-5,5	2,3-3,6	3,8-9,2	2,5-5,5		
40	60	2,5	1	1	141	1	141	1,6-4	2,7-7,4	1,8-4	1,9-2,2	2,4-8	1,8-4		
	60	4,0	1	1	151	1	151	2,2-5,1	3-8	2,6-5,5	2,3-3,6	3,8-8,7	2,5-5,5		
	100	4,8	1	1	156	1	156	2,2-5,1	3-9,6	2,6-5,5	2,3-3,6	3,8-9,2	2,5-5,5		
50	60	2,5	2	2	361	2	361	2,2-5,8	3-8,4	2,6-6,6	2,3-4,6	3,8-9,2	2,5-6,5		
	60	4,0	2	1	182	1	182	2,2-5,1	3-8	2,6-5,5	2,3-3,6	3,8-8,7	2,5-5,5		
	100	4,8	1	1	187	2	404	2,2-5,1	3-9,6	2,6-5,5	2,3-3,6	3,8-9,2	2,5-5,5		
63	60	2,5	2	2	443	2	443	2,6-5,8	3,3-8,4	3,1-6,6	2,6-4,6	4,7-9,2	2,9-6,5		
	60	4,0	2	2	471	2	471	2,6-8	3,3-9,6	3,1-9,6	2,6-7,4	4,7-10,6	2,9-9,6		
	100	4,8	1	2	486	2	486	2,6-8	3,3-9,6	3,1-9,6	2,6-7,4	4,7-10,6	2,9-9,6		
75	60	2,5	2	3	801	3	801	3,2-7,6	3,6-9,4	3,9-9,1	3,1-6,9	6,1-10,4	3,6-9,1		
	60	4,0	2	2	546	2	546	3,2-8	3,3-9,6	3,9-9,6	3,1-7,4	6,1-10,6	3,6-9,6		
	100	4,8	1	2	561	2	561	2,6-8	3,3-9,6	3,9-9,6	3,1-7,4	6,1-10,6	3,6-9,6		
83	60	2,5	2	3	876	3	876	3,2-7,6	3,6-9,4	3,9-9,1	3,1-6,9	6,1-10,4	3,6-9,1		
	60	4,0	2	2	597	2	597	3,2-8	3,3-9,6	3,9-9,6	3,1-7,4	6,1-10,6	3,6-9,6		
	100	4,8	1	2	612	2	612	2,6-8	3,6-9,6	3,1-9,6	3,1-7,4	6,1-10,6	3,6-9,6		
90	60	2,5	2	3	942	3	942	3,2-7,6	3,6-9,4	3,9-9,1	3,1-6,9	7-10,4	4-9,6		
	60	4,0	2	2	641	2	641	3,2-8	3,3-9,6	3,9-9,6	3,1-7,4	7-10,6	4-9,6		
	100	4,8	1	2	656	2	656	3,2-8	3,6-9,6	4,6-9,6	3,1-7,4	7-10,6	4-9,6		
110	60	2,5	2	4	1539	4	1130	3,8-9,4	3,9-10,5	4,6-11,7	3,4-6,9	4(8,4-11,6)*	4-9,1		
	60	4,0	2	2	766	2	766	3,8-8	3,3-9,6	4,6-9,6	3,5-7,4	8,4-11,1*	4,7-13,6*		
	100	4,8	1	2	781	2	781	3,8-8	3,9-9,6	4,6-9,6	3,5-7,4	8,4-11,1*	4,7-13,6*		
125	60	2,5	2	4	1727	4	1727	4,5-9,4	4,4-11,3	5,7-11,7	4,1-9,3	9,4-11,6	5,1-11,6		
	60	4,0	2	3	1328	3	1328	4,5-10,8	4,4-11,3	5,7-13,8	4,1-11,2	9,4-12,6	5,1-13,6		
	100	4,8	1	3	1358	3	1358	4,5-10,8	4,4-11,3	5,7-13,8	4,1-11,2	9,4-12,6	5,1-13,6		
135	60	2,5	2	5	2355	5	2355	4,5-11,2	4,4-11,3	5,9-14,3	4,1-9,3	10,8-12,6	5,3-13,6		
	60	4,0	2	3	1422	3	1422	4,5-10,8	4,4-11,3	5,7-13,8	4,1-11,2	10,8-12,6	5,3-13,6		
	100	4,8	1	3	1453	3	1453	4,5-10,8	4,4-11,3	5,7-13,8	4,1-11,2	10,8-12,6	5,3-13,6		
145	60	2,5	2	5	2512	5	2512	5,1-11,2	4,7-11,3	6,4-14,3	4,6-11,2	10,8-12,8	5,8-14,1		
	60	4,0	2	3	1517	3	1517	5,1-10,8	4,7-11,3	6,4-13,8	4,6-11,2	11,2-12,6	5,8-13,6		
	100	4,8	1	3	1547	3	1547	5,1-10,8	4,7-11,3	6,4-13,8	4,6-11,2	11,2-12,6	5,8-13,6		
150	60	2,5	2	5	2591	5	2591	5,1-11,2	4,7-11,3	6,4-14,3	4,6-11,2	11-12,8	6-14,1		
	60	4,0	2	3	1564	3	1564	5,1-10,8	4,7-11,3	6,4-13,8	4,6-11,2	11,2-12,6	6-13,6		
	100	4,8	1	3	1594	3	1594	5,1-10,8	4,7-11,3	6,4-13,8	4,6-11,2	11,2-12,6	6-13,6		
160	60	2,5	2	5	2748	5	2748	5,3-11,2	4,8-11,3	6,7-14,3	4,7-11,6	6(12,1-14)**	6,2-14,1		
	60	4,0	2	3	1658	3	1658	5,3-10,8	4,8-11,3	6,7-13,8	4,7-11,2	12,1-14**	6,2-17,5**		
	100	4,8	1	3	1688	3	1688	5,3-10,8	4,8-11,3	6,7-13,8	4,7-11,2	12,1-14**	6,2-17,5**		
185	60	2,5	2	6	3815	6	3815	6,1-12,3	5,3-12,5	14,9-17	5,3-14	14	8,4-17,5		
	60	4,0	2	4	2575	4	2575	6,1-12,3	5,3-12,5	14,9-17	5,3-14	14	8,4-17,5		
	100	4,8	1	4	2625	4	2625	6,1-12,3	5,3-12,5	14,9-17	5,3-14	14	8,4-17,5		
200	60	2,5	2	6	4098	6	4098	6,5-13	5,5-12,5	0	5,6-14		9-17,5		
	60	4,0	2	4	2763	4	2763	6,5-13	5,5-12,5	14,9-17	5,6-14		9-17,5		
	100	4,8	1	4	2813	4	2813	6,5-13	5,5-12,5	14,9-17	5,6-14		9-17,5		

NOTE: Thickness marked with (*, **) require the addition of one extra winding and adding an extra length of the band by one scroll.

TABLE OF LENGTH SELECTION AND NUMBER OF WRAPS WITH USE OF MULTITUBE WRAP 100 X 4,8 MM FOR METAL PIPE WITH SYNTETIC FLEXIBLE ELASTOMETRIC FOAM INSULATION FEF (KAFLEX OR ARMAFLEX)

STEEL	FLOOR EI 120				WALL EI 120		COPPER	FLOOR EI 120			WALL EI 120	
	Thickness of insulation 25 mm		Thickness of insulation 32 mm		Thickness of insulation 25 mm			Thickness of insulation 32 mm			Thickness of insulation 25 mm	
Nominal diameter of the pipe	Number of wraps with use of Multitube Wrap on the pipe	Wrap length to cut	Number of wraps with use of Multitube Wrap on the pipe	Wrap length to cut	Number of wraps with use of Multitube Wrap on the pipe	Wrap length to cut	Nominal diameter of the pipe	Number of wraps with use of Multitube Wrap on the pipe	Wrap length to cut	Number of wraps with use of Multitube Wrap on the pipe	Wrap length to cut	
mm		mm		mm		mm	mm		mm		mm	
17,2	2	512	2	399	1	163	8	1	156	1	156	
25	2	561	2	448	2	404	10	1	162	1	162	
26,9	2	573	2	460	2	416	12	2	367	2	323	
31,8	2	604	2	491	2	447	14	2	379	2	335	
38	2	643	2	530	2	486	15	2	386	2	342	
42,4	2	671	2	558	2	514	18	2	404	2	360	
48,3	2	708	2	595	2	551	22	2	430	2	386	
54	2	744	2	631	2	587	28	2	467	2	423	
57,2	2	764	2	651	2	607	35	2	511	2	467	
60,3	2	783	2	670	2	626	42	2	555	2	511	
76,1	2	882	3	1199	2	725	54	2	631	2	587	
88,9	3	1489	3	1320	3	1254	64	2	693	2	649	
101,6	3	1609	3	1439	3	1373	76,1	2	769	3	1133	
108,7	3	1676	3	1506	3	1440	88,9	3	1320	3	1254	
133,9	3	1913	3	1744	3	1678	108	3	1500	3	1434	
159,11	3	2151	4	2702	3	1915	CAST IRON	Thickness of insulation 32 mm			Thickness of insulation 13 mm	
168	3	2234	4	2813	3	1999	Nominal diameter of the pipe	Number of wraps with use of Multitube Wrap on the pipe	Thickness of insulation	Number of wraps with use of Multitube Wrap on the pipe	Thickness of insulation	
219	4	3680	4	3454	4	3366	mm		mm		mm	
225	4	3755	4	3529	4	3441	56	2	643	2	524	
249	4	4057	4	3831	4	3743	66	2	706	2	587	
273	4	4358	4	4132	4	4044	82	2	806	2	687	
							98	2	907	2	788	
							118	2	1032	2	913	
							144	3	1839	2	1076	
							170	3	2084	2	1240	
							222	3	2574	2	1566	
							273	3	3054	2	1887	

Examples: Copper pipe with syntetic flexible elastometric foam insulation FEF (Kaflex or Armaflex) with a thickness of 25 mm and cast iron pipe with syntetic flexible elastometric foam insulation FEF (Kaflex or Armaflex) with a thickness of 13 mm and 32 mm. Maximum wall thickness of steel, copper, cast, iron pipe is 14.2 mm. Pipe diameters marked in red indicated as an example calculation.

Note: Other specifications and when required other dimensions of the pipe or wall, see ETA-15/0511.

