

The ideal choice for
refrigeration systems!

Kaiflex[®] KK plus s2

Safe in case of fire. Efficient in everyday use.

- Universal insulation material for busy public and commercial buildings
- Increasing insulation thickness saves material and costs
- Dependable safety: Euroclass B₁/B-s2, d0
- Reliably prevents condensation and reduces the risk of corrosion under the insulation
- Additional protection against micro-organisms and mould



Safe in case of fire. Efficient in everyday use.

Requirements for limited smoke development are tightening across Europe, with more and more demanding measures to restrict smoke from insulation materials in fires. This requirement was made clear in Germany, for example, by the revision of the model administrative regulation MVV TB 2020/1 to define smoke development class s2 as the minimum requirement for flame-resistant building products. The fire resistance duration of building components (e.g. the lead-throughs of piping systems) also plays a significant role.

As a fully coordinated insulation system consisting of sheet, tube, pipe support and adhesive, Kaiflex KKplus s2 meets stricter building and fire protection requirements as well as thermal requirements for very effective technical insulation. The insulation already meets the requirements in the bid tender standard as well as those of MVV TB 2020/1.

Thanks to our patented KaiCene technology, the panels can remain uncoated and, like the tube material, help reduce smoke development and improve personal safety in the event of fire.

With its very low thermal conductivity and a high water vapour diffusion resistance this closed-cell insulation gives long-term protection from energy loss and corrosion, even at low insulation thicknesses.

Protection of refrigeration systems against condensation

As a flexible insulation at the highest technical level with limited smoke development, the Kaiflex KKplus s2 system is particularly suited for insulating cooling systems in highly frequented public and commercial buildings like airports, large office complexes, hospitals and hotels. Due to its antimicrobial and noise-reduction properties and

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its fibre-free nature, the Kaiflex KKplus s2 system also meets the highest hygienic requirements, and can be used in medical facilities without hesitation.

The insulation is ideal for pipe lead-throughs with fire resistance durations of 90 or even 120 minutes per DIN 4102-11. Kaiflex KKplus s2 is self-extinguishing and does not drip.

Kaiflex KKplus s2 reliably prevents the formation of condensation and pipe corrosion. The closed cells provide a full water vapour barrier, effectively reducing dampness and so maintaining the material's high insulation throughout the service life of the insulated system.

Further advantages

Another advantage of the system is that the insulation thickness of Kaiflex KKplus s2 tubes increases within the product group as pipe thickness increases. Thus, for each application, the ideal insulation thickness for condensation prevention is provided, resulting in material and cost savings.



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Reduced smoke development

In the event of a fire, visibility in rooms and corridors must be guaranteed for as long as possible. Through improved fire behaviour, Kaiflex increases personal protection and reduces contamination of building inventory.



Various solutions for preventive fire protection

In the event of a fire, fire, smoke and fire gases can spread to neighbouring rooms via pipe penetrations. Kaiflex offers certified fire protection systems with a minimum fire resistance of 90 minutes.



Reliable prevention of condensation

Dew formation can lead to damage to insulation as well as technical equipment. Due to its closed-cell property, Kaiflex keeps pipes and ducts dry and prevents corrosion under the insulation (CUI).



Further information, technical documents, application guides, services and much more can be found online at

www.kaimann.com

Certified quality



EPD

Transparent ecological balance thanks to an "Environmental Product Declaration".

Related system components and accessories from our product range



Kaiflex

RT-KKplus s1/s2
Insulated pipe support to prevent condensation and thermal bridges.



Kaiflex Pyrostar

Fire protection mat for sealing off insulation on pipelines in wall and ceiling penetrations.



Special Adhesive, Tape, Joints,...

Accessories designed for the optimal and efficient application of Kaiflex products

Kaimann Services



KaiCalc

Insulation thickness calculator for technical insulation in heating and cooling applications.

www.kaicalc.com



Fire Protection Planer

Just a few clicks to the ideal insulation material for a safe fire protection system.

www.sgti-firepenetration.com



Kaiflex KKplus s2 Technical Data

Material type base			Elastomeric foam based on synthetic rubber, Flexible Elastomeric Foam (FEF)	
Cell structure			Closed cell	
Colour	Tube		Black	
	Sheet		Anthracite	
Max. service temperature	Pipe		+110 °C	
	Flat surface		+85 °C	
Min. service temperature			-50 °C (-200 °C)	see remark (1)
Thermal conductivity	Tube (KKplus 1-4) ⁽²⁾	λ_{θ} at -10 °C	$0.033 + 10^{-4} \theta + 2.7105 \cdot 10^{-20} \theta^2$ $\leq 0.032 \text{ W/(m·K)}$	Test acc. to DIN EN ISO 8497
		at 0 °C	$\leq 0.033 \text{ W/(m·K)}$	
		at +10 °C	$\leq 0.034 \text{ W/(m·K)}$	
	Tube (KKplus 5-6)	λ_{θ} at -10 °C	$0.036 + 10^{-4} \theta + 2.7105 \cdot 10^{-20} \theta^2$ $\leq 0.035 \text{ W/(m·K)}$	Test acc. to DIN EN ISO 8497
		at 0 °C	$\leq 0.036 \text{ W/(m·K)}$	
		at +10 °C	$\leq 0.037 \text{ W/(m·K)}$	
Sheet	λ_{θ} at -10 °C	$0.038 + 9.0144 \cdot 10^{-5} \theta + 3.29744 \cdot 10^{-7} \theta^2$ $\leq 0.037 \text{ W/(m·K)}$	Test acc. to DIN EN 12667	
	at 0 °C	$\leq 0.038 \text{ W/(m·K)}$		
	at +10 °C	$\leq 0.039 \text{ W/(m·K)}$		
Water vapour permeability	Tube (KKplus 1-4) ⁽²⁾	Moisture resistance factor μ	$\geq 10,000$	Test acc. to DIN EN 13469
	Tube (KKplus 5-6)	Moisture resistance factor μ	$\geq 7,000$	Test acc. to DIN EN 13469
	Sheet	Moisture resistance factor μ	$\geq 7,000$	Test acc. to DIN EN 12086
Fire behaviour	Tube	Euroclass characteristics ⁽³⁾	B _L -s2, d0	Test acc. to DIN EN 13501-1
	Sheet	Euroclass characteristics ⁽³⁾	B-s2, d0	Test acc. to DIN EN 13501-1
		Characteristics acc. to British Standard	Class O	In acc. with UK Building Regulations
Fire resistance classification			Self-extinguishing, no drips	
			R90	(ABP) Nr.:P-MPA-E-14-001
Resistance to	Corrosion		Satisfies requirements	In acc. with DIN 1988
	Mould and bacteria		No growth	Test acc. to DIN EN ISO 846 Meth. A+C In acc. with VDI 6022
Insulation material index number acc. to AGI	Tube		36.12.02.05.04	
	Sheet		36.07.04.05.01	
Environmental aspects			No biocides added	
Health aspects			Fibre free: For high hygiene requirements	
			Free from heavy metal (e.g. cadmium, lead) and formaldehyde	
Other properties	pH-Value		NPD (No performance determined)	

Kaiflex KKplus s2

Technical Data

Other certificates / approvals	Tube	CE-compliant FIW-audited (European Insulation Keymark Scheme for Thermal Insulation Products)	035-FIW-2-008.0-04
	Sheet	FIW-audited (European Insulation Keymark Scheme for Thermal Insulation Products) FM-approved DNV, Lloyd's Register, See BG	035-FIW-2-008.0-07
Storage	Self-adhesive products	The material must be installed within one year after delivery and proper storage. Store in a dry room at a typical relative humidity (between 50 % and 70 %) and room temperature (between 0 °C and +35 °C)	
Tolerances & limits		Satisfies requirements	In acc. with EN 14304:2009+A1:2013
Outdoor applications		Needs protection against UV-radiation	see remark (3)

Remark (1) For temperatures below -50 °C please contact our Technical Support Team for advice.

Remark (2) For tubes with an average insulation thickness ≥ 25 mm, the Technical Value corresponds to the specifications of the tubes in groups KKplus 5-6.

Remark (3) The Euroclass rating applies to metallic or solid mineral substrates.

Remark (4) To protect against UV-induced deterioration Kaiflex must be either painted using Kaifinish Color paint or covered with a suitable UV resistant cladding system within 1 day of being installed outdoors.



Kaiflex KKplus s2
Tube



Colour: Black - Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 1 Insulation thickness 7.0 - 10.0 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
6.0	4				7.0	KK+s2-T-2m-1/006	4000000	466
8.0	6				7.0	KK+s2-T-2m-1/008	4000001	406
10.0	8	1/8	10.2	6	7.5	KK+s2-T-2m-1/010	4000002	284
12.0	10		12.5		7.5	KK+s2-T-2m-1/012	4000003	234
15.0	10	1/4	13.5	8	8.0	KK+s2-T-2m-1/015	4000004	192
18.0	15	3/8	17.2	10	8.0	KK+s2-T-2m-1/018	4000005	168
22.0	20	1/2	21.3	15	8.5	KK+s2-T-2m-1/022	4000006	132
28.0	25	3/4	26.9	20	8.5	KK+s2-T-2m-1/028	4000008	96
35.0	32	1	33.7	25	9.0	KK+s2-T-2m-1/035	4000010	70
42.0	40	1 1/4	42.4	32	9.0	KK+s2-T-2m-1/042	4000012	60
			44.5		9.0	KK+s2-T-2m-1/045	4000013	56
		1 1/2	48.3	40	9.0	KK+s2-T-2m-1/048	4000014	50
54.0	50		54.0		9.0	KK+s2-T-2m-1/054	4000015	40
57.0	50		57.0		9.0	KK+s2-T-2m-1/057	4000016	40
		2	60.3	50	9.0	KK+s2-T-2m-1/060	4000017	36
64.0			63.5		9.5	KK+s2-T-2m-1/064	4000018	32
70.0			70.0		9.5	KK+s2-T-2m-1/070	4000019	32
76.1	65	2 1/2	76.1	65	9.5	KK+s2-T-2m-1/076	4000020	24
80.0					9.5	KK+s2-T-2m-1/080	4000021	24
88.9	80	3	88.9	80	9.5	KK+s2-T-2m-1/089	4000022	20
108.0	100		108.0		9.5	KK+s2-T-2m-1/108	4000024	16
114.0	100	4	114.3	100	9.5	KK+s2-T-2m-1/114	4000025	16
			125.0		9.5	KK+s2-T-2m-1/125	4000026	12
		5	139.7	125	10.0	KK+s2-T-2m-1/140	4000028	12
159.0	150		160.0		10.0	KK+s2-T-2m-1/160	4000029	8

Slit tubes available on request.

Kaiflex KKplus s2
Tube



Colour: Black - Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 2 Insulation thickness 9.5 - 16.0 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
6.0	4				9.5	KK+s2-T-2m-2/006	4000030	288
8.0	6				10.0	KK+s2-T-2m-2/008	4000031	240
10.0	8	1/8	10.2	6	11.0	KK+s2-T-2m-2/010	4000032	192
12.0	10		12.5		11.0	KK+s2-T-2m-2/012	4000033	168
15.0	10	1/4	13.5	8	11.0	KK+s2-T-2m-2/015	4000034	144
18.0	15	3/8	17.2	10	11.5	KK+s2-T-2m-2/018	4000035	120
22.0	20	1/2	21.3	15	12.0	KK+s2-T-2m-2/022	4000036	96
28.0	25	3/4	26.9	20	12.5	KK+s2-T-2m-2/028	4000038	80
35.0	32	1	33.7	25	13.0	KK+s2-T-2m-2/035	4000040	60
42.0	40	1 1/4	42.4	32	13.5	KK+s2-T-2m-2/042	4000041	40
			44.5		13.5	KK+s2-T-2m-2/045	4000042	40
		1 1/2	48.3	40	13.5	KK+s2-T-2m-2/048	4000043	40
54.0	50		54.0		13.5	KK+s2-T-2m-2/054	4000044	32
57.0	50		57.0		14.0	KK+s2-T-2m-2/057	4000045	32
		2	60.3	50	14.0	KK+s2-T-2m-2/060	4000046	32
64.0			63.5		14.0	KK+s2-T-2m-2/064	4000047	28
70.0			70.0		14.0	KK+s2-T-2m-2/070	4000048	28
76.1	65	2 1/2	76.1	65	14.0	KK+s2-T-2m-2/076	4000049	28
80.0					14.5	KK+s2-T-2m-2/080	4000050	24
88.9	80	3	88.9	80	14.5	KK+s2-T-2m-2/089	4000051	20
108.0	100		108.0		14.5	KK+s2-T-2m-2/108	4000053	16
114.0	100	4	114.3	100	15.0	KK+s2-T-2m-2/114	4000054	16
			125.0		15.0	KK+s2-T-2m-2/125	4000055	12
		5	139.7	125	15.5	KK+s2-T-2m-2/140	4000057	8
159.0	150		160.0		16.0	KK+s2-T-2m-2/160	4000058	8

Slit tubes available on request.

Kaiflex KKplus s2
Tube



Colour: Black - Length: 2 m								
Copper pipe Cu		Iron & steel pipe Fe			KKplus 3 Insulation thickness 12.5 - 19.0 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
10.0	8	1/8	10.2	6	12.5	KK+s2-T-2m-3/010	4000059	156
12.0	10		12.5		13.0	KK+s2-T-2m-3/012	4000060	144
15.0	10	1/4	13.5	8	13.5	KK+s2-T-2m-3/015	4000061	108
18.0	15	3/8	17.2	10	14.0	KK+s2-T-2m-3/018	4000062	96
22.0	20	1/2	21.3	15	14.5	KK+s2-T-2m-3/022	4000063	84
28.0	25	3/4	26.9	20	15.0	KK+s2-T-2m-3/028	4000065	60
35.0	32	1	33.7	25	15.5	KK+s2-T-2m-3/035	4000067	50
42.0	40	1 1/4	42.4	32	16.0	KK+s2-T-2m-3/042	4000068	40
			44.5		16.0	KK+s2-T-2m-3/045	4000069	36
		1 1/2	48.3	40	16.0	KK+s2-T-2m-3/048	4000070	32
54.0	50		54.0		16.5	KK+s2-T-2m-3/054	4000071	24
57.0	50		57.0		16.5	KK+s2-T-2m-3/057	4000072	24
		2	60.3	50	16.5	KK+s2-T-2m-3/060	4000073	24
64.0			63.5		16.5	KK+s2-T-2m-3/064	4000074	20
70.0			70.0		17.0	KK+s2-T-2m-3/070	4000075	18
76.1	65	2 1/2	76.1	65	17.0	KK+s2-T-2m-3/076	4000076	16
80.0					17.0	KK+s2-T-2m-3/080	4000077	16
88.9	80	3	88.9	80	17.5	KK+s2-T-2m-3/089	4000078	16
108.0	100		108.0		18.0	KK+s2-T-2m-3/108	4000080	12
114.0	100	4	114.3	100	18.0	KK+s2-T-2m-3/114	4000081	12
			125.0		18.5	KK+s2-T-2m-3/125	4000082	12
		5	139.7	125	19.0	KK+s2-T-2m-3/140	4000084	8
159.0	150		160.0		19.0	KK+s2-T-2m-3/160	4000085	6

Slit tubes available on request.

Kaiflex KKplus s2
Tube



Colour: Black - Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 4 Insulation thickness 7.0 - 10.0 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
10.0	8	1/8	10.2	6	15.5	KK+s2-T-2m-4/010	4000087	110
12.0	10		12.5		16.0	KK+s2-T-2m-4/012	4000088	100
15.0	10	1/4	13.5	8	17.0	KK+s2-T-2m-4/015	4000089	90
18.0	15	3/8	17.2	10	17.5	KK+s2-T-2m-4/018	4000090	72
22.0	20	1/2	21.3	15	18.0	KK+s2-T-2m-4/022	4000091	64
28.0	25	3/4	26.9	20	19.0	KK+s2-T-2m-4/028	4000093	50
35.0	32	1	33.7	25	19.5	KK+s2-T-2m-4/035	4000095	40
42.0	40	1 1/4	42.4	32	20.0	KK+s2-T-2m-4/042	4000096	32
			44.5		20.5	KK+s2-T-2m-4/045	4000097	28
		1 1/2	48.3	40	20.5	KK+s2-T-2m-4/048	4000098	24
54.0	50		54.0		21.0	KK+s2-T-2m-4/054	4000099	24
57.0	50		57.0		21.0	KK+s2-T-2m-4/057	4000100	20
		2	60.3	50	21.5	KK+s2-T-2m-4/060	4000101	20
64.0			63.5		21.5	KK+s2-T-2m-4/064	4000102	18
70.0			70.0		22.0	KK+s2-T-2m-4/070	4000103	16
76.1	65	2 1/2	76.1	65	22.0	KK+s2-T-2m-4/076	4000104	16
80.0					22.5	KK+s2-T-2m-4/080	4000105	16
88.9	80	3	88.9	80	22.5	KK+s2-T-2m-4/089	4000107	12
108.0	100		108.0		23.0	KK+s2-T-2m-4/108	4000109	10
114.0	100	4	114.3	100	23.5	KK+s2-T-2m-4/114	4000110	10
			125.0		23.5	KK+s2-T-2m-4/125	4000111	8
		5	139.7	125	24.5	KK+s2-T-2m-4/140	4000113	6
159.0	150		160.0		25.0	KK+s2-T-2m-4/160	4000114	6

Slit tubes available on request.

Kaiflex KKplus s2
Tube



Colour: Black - Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 5 Insulation thickness 21.5 - 30.0 mm				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton	
18.0	15	3/8	17.2	10	21.5	KK+s2-T-2m-5/018	4000115	50	
22.0	20	1/2	21.3	15	22.5	KK+s2-T-2m-5/022	4000116	42	
28.0	25	3/4	26.9	20	23.5	KK+s2-T-2m-5/028	4000117	40	
35.0	32	1	33.7	25	24.5	KK+s2-T-2m-5/035	4000118	24	
42.0	40	1 1/4	42.4	32	25.5	KK+s2-T-2m-5/042	4000119	22	
		1 1/2	48.3	40	26.0	KK+s2-T-2m-5/048	4000120	18	
54.0	50		54.0		26.5	KK+s2-T-2m-5/054	4000121	16	
		2	60.3	50	27.0	KK+s2-T-2m-5/060	4000122	12	
64.0			63.5		27.0	KK+s2-T-2m-5/064	4000123	12	
70.0			70.0		27.5	KK+s2-T-2m-5/070	4000124	12	
76.1	65	2 1/2	76.1	65	27.5	KK+s2-T-2m-5/076	4000125	10	
88.9	80	3	88.9	80	28.5	KK+s2-T-2m-5/089	4000126	8	
108.0	100		108.0		29.0	KK+s2-T-2m-5/108	4000127	6	
114.0	100	4	114.3	100	29.0	KK+s2-T-2m-5/114	4000128	6	
		5	139.7	125	30.0	KK+s2-T-2m-5/140	4000129	4	

Copper pipe Cu		Iron & steel pipe Fe			KKplus 6 Insulation thickness 26.5 - 42.0 mm				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton	
12.0	10		12.5		26.5	KK+s2-T-2m-6/012	4000130	40	
15.0	10	1/4	13.5	8	28.0	KK+s2-T-2m-6/015	4000131	32	
18.0	15	3/8	17.2	10	29.0	KK+s2-T-2m-6/018	4000132	32	
22.0	20	1/2	21.3	15	30.0	KK+s2-T-2m-6/022	4000133	32	
28.0	25	3/4	26.9	20	31.5	KK+s2-T-2m-6/028	4000134	24	
35.0	32	1	33.7	25	33.0	KK+s2-T-2m-6/035	4000135	22	
42.0	40	1 1/4	42.4	32	34.0	KK+s2-T-2m-6/042	4000136	16	
		1 1/2	48.3	40	35.0	KK+s2-T-2m-6/048	4000137	12	
54.0	50		54.0		35.5	KK+s2-T-2m-6/054	4000138	12	
57.0	50		57.0		36.0	KK+s2-T-2m-6/057	4000139	12	
		2	60.3	50	36.5	KK+s2-T-2m-6/060	4000140	10	
64.0			63.5		37.0	KK+s2-T-2m-6/064	4000141	10	
70.0			70.0		37.5	KK+s2-T-2m-6/070	4000142	8	
76.1	65	2 1/2	76.1	65	38.0	KK+s2-T-2m-6/076	4000143	8	
80.0					38.0	KK+s2-T-2m-6/080	4000144	8	
88.9	80	3	88.9	80	39.0	KK+s2-T-2m-6/089	4000145	6	
114.0	100	4	114.3	100	40.0	KK+s2-T-2m-6/114	4000148	4	
		5	139.7	125	41.5	KK+s2-T-2m-6/140	4000150	2	
159.0	150		160.0		42.0	KK+s2-T-2m-6/160	4000151	2	

Slit tubes available on request.

Kaiflex KKplus s2

Tube · self-adhesive · with tangential cut



Colour: Black · Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe				KKplus 1 Insulation thickness 8.0 - 9.0 mm		
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	8.0	KK+s2-T-2m-1/015-SA	4000152	192
18.0	15	3/8	17.2	10	8.0	KK+s2-T-2m-1/018-SA	4000153	168
22.0	20	1/2	21.3	15	8.5	KK+s2-T-2m-1/022-SA	4000154	132
28.0	25	3/4	26.9	20	8.5	KK+s2-T-2m-1/028-SA	4000155	96
35.0	32	1	33.7	25	9.0	KK+s2-T-2m-1/035-SA	4000156	70
42.0	40	1 1/4	42.4	32	9.0	KK+s2-T-2m-1/042-SA	4000157	60
		1 1/2	48.3	40	9.0	KK+s2-T-2m-1/048-SA	4000158	50
54.0	50	2	54.0	50	9.0	KK+s2-T-2m-1/054-SA	4000159	40
			60.3	50	9.0	KK+s2-T-2m-1/060-SA	4000160	36

Copper pipe Cu		Iron & steel pipe Fe				KKplus 2 Insulation thickness 11.0 - 14.5 mm		
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	11.0	KK+s2-T-2m-2/015-SA	4000164	144
18.0	15	3/8	17.2	10	11.5	KK+s2-T-2m-2/018-SA	4000165	120
22.0	20	1/2	21.3	15	12.0	KK+s2-T-2m-2/022-SA	4000166	96
28.0	25	3/4	26.9	20	12.5	KK+s2-T-2m-2/028-SA	4000167	80
35.0	32	1	33.7	25	13.0	KK+s2-T-2m-2/035-SA	4000168	60
42.0	40	1 1/4	42.4	32	13.5	KK+s2-T-2m-2/042-SA	4000169	40
		1 1/2	48.3	40	13.5	KK+s2-T-2m-2/048-SA	4000170	40
54.0	50	2	54.0	50	13.5	KK+s2-T-2m-2/054-SA	4000171	32
			60.3	50	14.0	KK+s2-T-2m-2/060-SA	4000172	32
76.1	65	2 1/2	76.1	65	14.0	KK+s2-T-2m-2/076-SA	4000173	28
88.9	80	3	88.9	80	14.5	KK+s2-T-2m-2/089-SA	4000174	20

Copper pipe Cu		Iron & steel pipe Fe				KKplus 3 Insulation thickness 13.5 - 17.5 mm		
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	13.5	KK+s2-T-2m-3/015-SA	4000175	108
18.0	15	3/8	17.2	10	14.0	KK+s2-T-2m-3/018-SA	4000176	96
22.0	20	1/2	21.3	15	14.5	KK+s2-T-2m-3/022-SA	4000177	84
28.0	25	3/4	26.9	20	15.0	KK+s2-T-2m-3/028-SA	4000178	60
35.0	32	1	33.7	25	15.5	KK+s2-T-2m-3/035-SA	4000179	50
42.0	40	1 1/4	42.4	32	16.0	KK+s2-T-2m-3/042-SA	4000180	40
		1 1/2	48.3	40	16.0	KK+s2-T-2m-3/048-SA	4000181	32
54.0	50	2	54.0	50	16.5	KK+s2-T-2m-3/054-SA	4000182	24
			60.3	50	16.5	KK+s2-T-2m-3/060-SA	4000183	24
76.1	65	2 1/2	76.1	65	17.0	KK+s2-T-2m-3/076-SA	4000184	16
88.9	80	3	88.9	80	17.5	KK+s2-T-2m-3/089-SA	4000185	16

Kaiflex KKplus s2

Tube · self-adhesive · with tangential cut



Colour: Black · Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 4 Insulation thickness 17.0 - 22.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	17.0	KK+s2-T-2m-4/015-SA	4000186	90
18.0	15	3/8	17.2	10	17.5	KK+s2-T-2m-4/018-SA	4000187	72
22.0	20	1/2	21.3	15	18.0	KK+s2-T-2m-4/022-SA	4000188	64
28.0	25	3/4	26.9	20	19.0	KK+s2-T-2m-4/028-SA	4000189	50
35.0	32	1	33.7	25	19.5	KK+s2-T-2m-4/035-SA	4000190	40
42.0	40	11/4	42.4	32	20.0	KK+s2-T-2m-4/042-SA	4000191	32
		11/2	48.3	40	20.5	KK+s2-T-2m-4/048-SA	4000192	24
54.0	50		54.0		21.0	KK+s2-T-2m-4/054-SA	4000193	24
		2	60.3	50	21.5	KK+s2-T-2m-4/060-SA	4000194	20
76.1	65	2 1/2	76.1	65	22.0	KK+s2-T-2m-4/076-SA	4000195	16
88.9	80	3	88.9	80	22.5	KK+s2-T-2m-4/089-SA	4000196	12

Kaiflex KKplus s2

Tube · self-adhesive · with SA-overlap (3 mm Tape)



Colour: Black · Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 1 Insulation thickness 8.0 - 9.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	8.0	KK+s2-T-2m-1/015-SA-T	4000198	192
18.0	15	3/8	17.2	10	8.0	KK+s2-T-2m-1/018-SA-T	4000199	168
22.0	20	1/2	21.3	15	8.5	KK+s2-T-2m-1/022-SA-T	4000200	132
28.0	25	3/4	26.9	20	8.5	KK+s2-T-2m-1/028-SA-T	4000201	96
35.0	32	1	33.7	25	9.0	KK+s2-T-2m-1/035-SA-T	4000202	70
42.0	40	11/4	42.4	32	9.0	KK+s2-T-2m-1/042-SA-T	4000203	60
		11/2	48.3	40	9.0	KK+s2-T-2m-1/048-SA-T	4000204	50
54.0	50		54.0		9.0	KK+s2-T-2m-1/054-SA-T	4000205	40
		2	60.3	50	9.0	KK+s2-T-2m-1/060-SA-T	4000206	36
76.1	65	2 1/2	76.1	65	9.5	KK+s2-T-2m-1/076-SA-T	4000208	24
88.9	80	3	88.9	80	9.5	KK+s2-T-2m-1/089-SA-T	4000209	20

Copper pipe Cu		Iron & steel pipe Fe			KKplus 2 Insulation thickness 11.0 - 14.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	11.0	KK+s2-T-2m-2/015-SA-T	4000210	144
18.0	15	3/8	17.2	10	11.5	KK+s2-T-2m-2/018-SA-T	4000211	120
22.0	20	1/2	21.3	15	12.0	KK+s2-T-2m-2/022-SA-T	4000212	96
28.0	25	3/4	26.9	20	12.5	KK+s2-T-2m-2/028-SA-T	4000214	80
35.0	32	1	33.7	25	13.0	KK+s2-T-2m-2/035-SA-T	4000215	60
42.0	40	11/4	42.4	32	13.5	KK+s2-T-2m-2/042-SA-T	4000216	40
		11/2	48.3	40	13.5	KK+s2-T-2m-2/048-SA-T	4000217	40
54.0	50		54.0		13.5	KK+s2-T-2m-2/054-SA-T	4000218	32
		2	60.3	50	14.0	KK+s2-T-2m-2/060-SA-T	4000219	32
76.1	65	2 1/2	76.1	65	14.0	KK+s2-T-2m-2/076-SA-T	4000220	28
88.9	80	3	88.9	80	14.5	KK+s2-T-2m-2/089-SA-T	4000221	20

Kaiflex KKplus s2

Tube · self-adhesive · with SA-overlap (3 mm Tape)



Colour: Black · Length: 2 m

Copper pipe Cu		Iron & steel pipe Fe			KKplus 3 Insulation thickness 8.0 - 9.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	13.5	KK+s2-T-2m-3/015-SA-T	4000222	108
18.0	15	3/8	17.2	10	14.0	KK+s2-T-2m-3/018-SA-T	4000223	96
22.0	20	1/2	21.3	15	14.5	KK+s2-T-2m-3/022-SA-T	4000224	84
28.0	25	3/4	26.9	20	15.0	KK+s2-T-2m-3/028-SA-T	4000225	60
35.0	32	1	33.7	25	15.5	KK+s2-T-2m-3/035-SA-T	4000226	50
42.0	40	1 1/4	42.4	32	16.0	KK+s2-T-2m-3/042-SA-T	4000227	40
		1 1/2	48.3	40	16.0	KK+s2-T-2m-3/048-SA-T	4000228	32
54.0	50	2	54.0		16.5	KK+s2-T-2m-3/054-SA-T	4000229	24
			60.3	50	16.5	KK+s2-T-2m-3/060-SA-T	4000230	24
76.1	65	2 1/2	76.1	65	17.0	KK+s2-T-2m-3/076-SA-T	4000231	16
88.9	80	3	88.9	80	17.5	KK+s2-T-2m-3/089-SA-T	4000232	16

Copper pipe Cu		Iron & steel pipe Fe			KKplus 4 Insulation thickness 17.0 - 22.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	17.0	KK+s2-T-2m-4/015-SA-T	4000233	90
18.0	15	3/8	17.2	10	17.5	KK+s2-T-2m-4/018-SA-T	4000234	72
22.0	20	1/2	21.3	15	18.0	KK+s2-T-2m-4/022-SA-T	4000235	64
28.0	25	3/4	26.9	20	19.0	KK+s2-T-2m-4/028-SA-T	4000236	50
35.0	32	1	33.7	25	19.5	KK+s2-T-2m-4/035-SA-T	4000237	40
42.0	40	1 1/4	42.4	32	20.0	KK+s2-T-2m-4/042-SA-T	4000238	32
		1 1/2	48.3	40	20.5	KK+s2-T-2m-4/048-SA-T	4000239	24
54.0	50	2	54.0		21.0	KK+s2-T-2m-4/054-SA-T	4000240	24
			60.3	50	21.5	KK+s2-T-2m-4/060-SA-T	4000241	20
76.1	65	2 1/2	76.1	65	22.0	KK+s2-T-2m-4/076-SA-T	4000244	16
88.9	80	3	88.9	80	22.5	KK+s2-T-2m-4/089-SA-T	4000245	12

Kaiflex KKplus s2

Sheet · endless



Colour: Anthracite · Width: 1.2 m · OD coil: 40 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m ² / carton
6	KK+s2-Sh-e-1,2m-40BX-06	4003754	18	21.6
10	KK+s2-Sh-e-1,2m-40BX-10	4003755	10	12.0
13	KK+s2-Sh-e-1,2m-40BX-13	4003756	8	9.6
19	KK+s2-Sh-e-1,2m-40BX-19	4003758	6	7.2
25	KK+s2-Sh-e-1,2m-40BX-25	4003759	4	4.8
32	KK+s2-Sh-e-1,2m-40BX-32	4003760	3	3.6

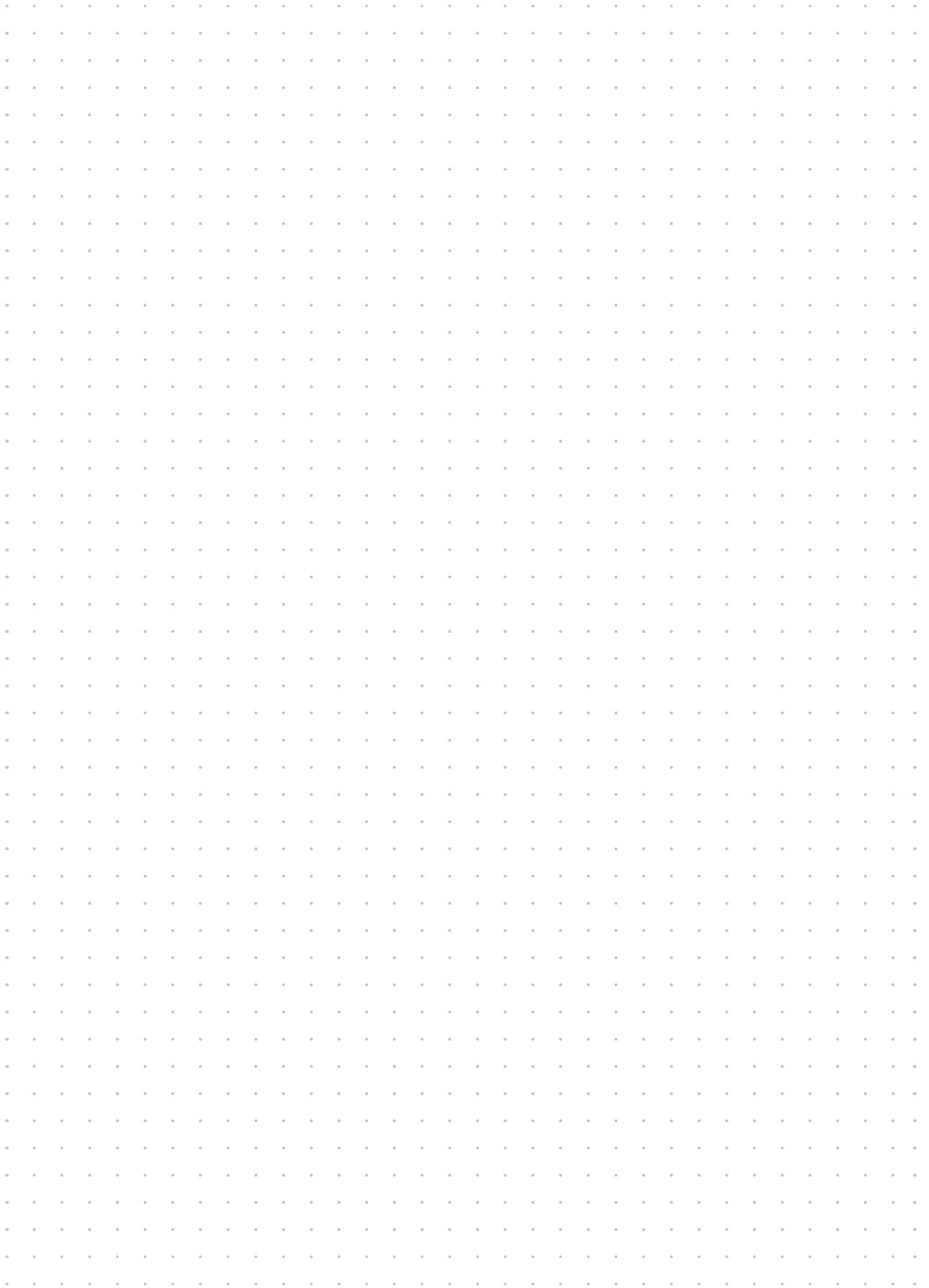
Kaiflex KKplus s2

Sheet · endless · self-adhesive



Colour: Anthracite · Width: 1.2 m · OD coil: 40 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m ² / carton
6	KK+s2-Sh-e-1,2m-40BX-06-SA	4003762	18	21.6
10	KK+s2-Sh-e-1,2m-40BX-10-SA	4003763	10	12.0
13	KK+s2-Sh-e-1,2m-40BX-13-SA	4003764	8	9.6
19	KK+s2-Sh-e-1,2m-40BX-19-SA	4003766	6	7.2
25	KK+s2-Sh-e-1,2m-40BX-25-SA	4003767	4	4.8
32	KK+s2-Sh-e-1,2m-40BX-32-SA	4003768	3	3.6



Kaiflex ECplus
Joint · self-adhesive



Colour: Black								
Copper pipe Cu		Iron & steel pipe Fe			KKplus 2 Insulation thickness 11.5 - 14.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	Pcs./ carton
18.0	15	3/8	17.2	10	11.5	EC+-Jo-2/018-SA	4004995	300
22.0	20	1/2	21.3	15	12.0	EC+-Jo-2/022-SA	4004996	240
28.0	25	3/4	26.9	20	12.5	EC+-Jo-2/028-SA	4004997	200
35.0	32	1	33.7	25	13.0	EC+-Jo-2/035-SA	4004998	150
42.0	40	1 1/4	42.4	32	13.5	EC+-Jo-2/042-SA	4004999	100
		1 1/2	48.3	40	13.5	EC+-Jo-2/048-SA	4005000	100
54.0	50		54.0		13.5	EC+-Jo-2/054-SA	4005001	80
		2	60.3	50	14.0	EC+-Jo-2/060-SA	4005002	80
76.1	65	2 1/2	76.1	65	14.0	EC+-Jo-2/076-SA	4005003	70
88.9	80	3	88.9	80	14.5	EC+-Jo-2/089-SA	4005004	50

Copper pipe Cu		Iron & steel pipe Fe			KKplus 4 Insulation thickness 17.5 - 22.5 mm			
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	avg. IT mm	Dimension / Reference	Order No.	Pcs./ carton
18.0	15	3/8	17.2	10	17.5	EC+-Jo-4/018-SA	4005005	180
22.0	20	1/2	21.3	15	18.0	EC+-Jo-4/022-SA	4005006	160
28.0	25	3/4	26.9	20	19.0	EC+-Jo-4/028-SA	4005007	125
35.0	32	1	33.7	25	19.5	EC+-Jo-4/035-SA	4005008	100
42.0	40	1 1/4	42.4	32	20.0	EC+-Jo-4/042-SA	4005009	80
		1 1/2	48.3	40	20.5	EC+-Jo-4/048-SA	4005010	60
54.0	50		54.0		21.0	EC+-Jo-4/054-SA	4005011	60
		2	60.3	50	21.5	EC+-Jo-4/060-SA	4005012	50
76.1	65	2 1/2	76.1	65	22.0	EC+-Jo-4/076-SA	4005013	40
88.9	80	3	88.9	80	22.5	EC+-Jo-4/089-SA	4005014	30

Accessories

Adhesive · Cleaner · Protective Coating

		Details	Dimension / Reference	Order No.	Container type	Content	Pcs./ PU
Adhesive							
	Kaiflex Special Adhesive 415		Ad-415-CA660	4007232	Can	660 g	20
	Kaiflex Special Adhesive 414	incl brush · toluene-free	Ad-414-CA220	4004706	Can	220 g	24
	Kaiflex Special Adhesive 414	toluene-free	Ad-414-CA660	4004708	Can	660 g	20
	Kaiflex Special Adhesive 414	toluene-free	Ad-414-CN2200	4004710	Canister	2200 g	6
Cleaner							
	Kaiflex Cleaner		Clean-CA1000	4004732	Can	1.0 l	12
Protective Coating							
	Kaifinish Color	Colour: White (approx. RAL 9010)	KF-Co-wh-CA750	4004719	Can	0.75 l	4
		Colour: Grey (approx. RAL 7035)	KF-Co-gr-CA750	4004720	Can	0.75 l	4

Accessories

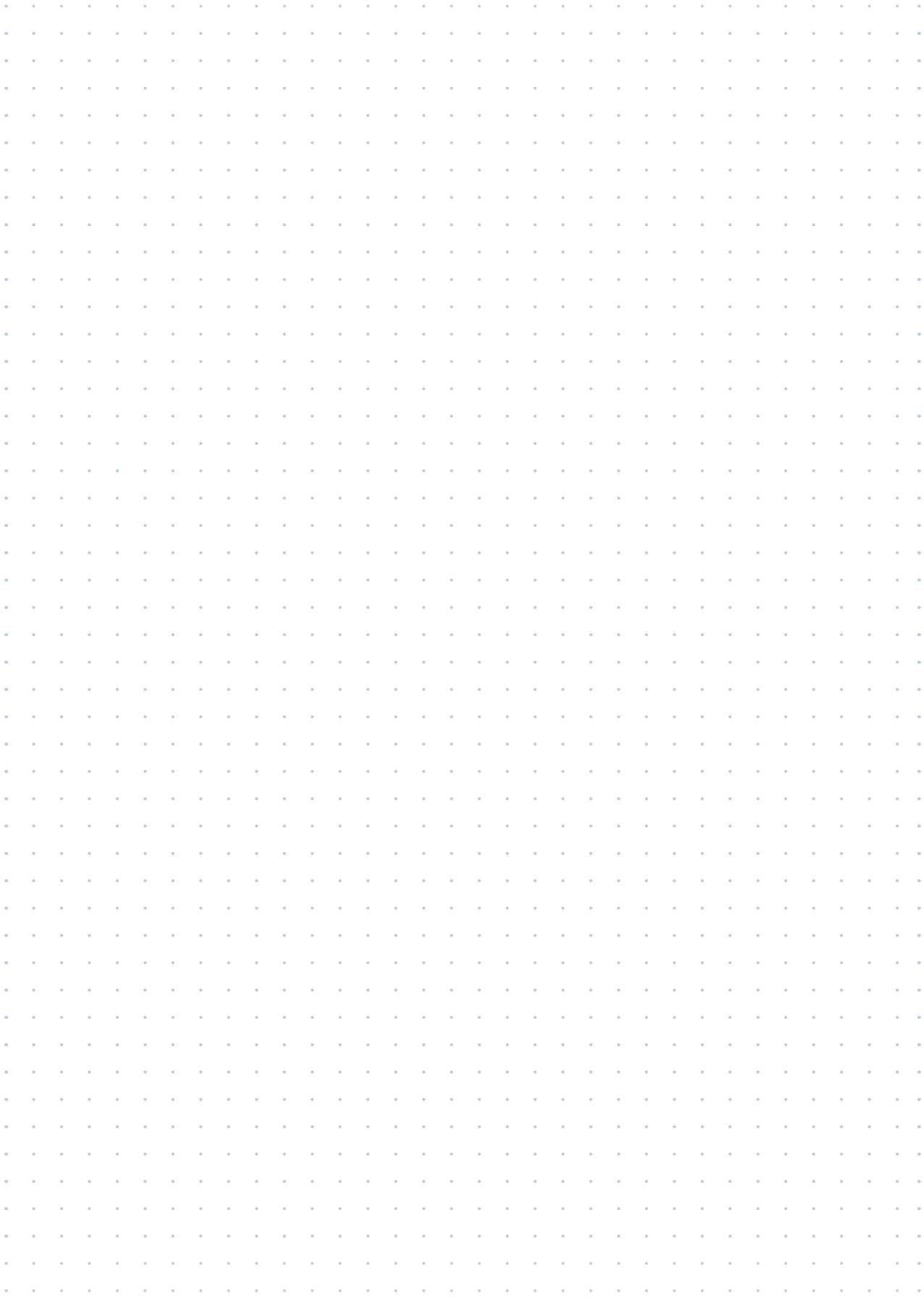
Glue pump · Knife · Gel ink pen

		Details	Dimension / Reference	Order No.	Pcs./ PU
Glue pump					
	Glue pump	long spout · 17 mm brush	GI-Pmp-long	4004718	1
	Glue pump	short spout · 17 mm brush	GI-Pmp-short	4004715	1
	11 mm brush	for glue pump	GI-Pmp-Brush-11	4004716	1
	17 mm brush	for glue pump	GI-Pmp-Brush-17	4004717	1
Knife					
	Ceramic knife	with ceramic blade (15 cm) and plastic handle (14 cm)	Knf-Ceramic	4004737	1
	Sheet knife		Knf-Sheet	4004735	1
	Set of knives	3 knives, 1 whetstone	Knf-Set	4004736	1
Gel ink pen					
	Gel ink pen	Colour: Silver · for marking on insulation materials	Gelpen	4004730	12

Accessories

Tape

		Details	Dimension / Reference	Order No.	Width mm	Length m	Thickness mm	Pcs./ PU
	Kaiflex KKplus s2 Tape	self-adhesive	Tp-KK+s2-50/15/3-SA	4010453	50	15	3	12



Tolerances, Limits

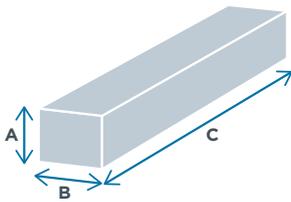
EN 14304:2009+A1:2013 · Flexible Elastomeric Foam (FEF)

Delivery form	Length	Width	Thickness		Perpendicularity	Inner diameter	
			Stated	Limits		$D_i \leq 100$	$D_i > 100$
Tube	±1.5 %	-	$d_b \leq 8$ $8 < d_b \leq 18$ $18 < d_b \leq 31$ $d_b > 31$	±1.0 ±1.5 ±2.5 ±3.0	3.0 mm	$D_{iD} + 1 \leq D_i \leq D_{iD} + 4$	$D_{iD} + 1 \leq D_i \leq D_{iD} + 6$
Sheet · endless	+5.0 % -1.5 %	±2.0 %	$d_b \leq 6$ $6 < d_b \leq 19$ $d_b > 19$	±1.0 ±1.5 ±2.0	3.0 mm/m (Length/Width) - 3.0 mm (Thickness)	-	-
Tape	+5.0 % -1.5 %	±2.0 %	$d_b = 3$	-0.1 +1.5	-	-	-

Measurements in mm · D_i = inner diameter · d_b = Nominal thickness of product · D_{iD} = Nominal thickness of a tube

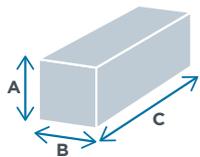
Kaiflex KKplus s2

Packaging types



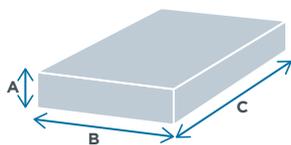
Tube · Length: 2 m

A: 320 mm
B: 410 mm
C: 2120 mm
Volume: 0.278 m³



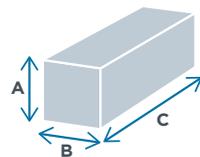
Sheet · endless Width: 1.2 m OD coil: 40 cm

A: 400 mm
B: 400 mm
C: 1.200 mm
Volume: 0.192 m³



Joint

A: 110 mm
B: 270 mm
C: 250 mm
Volume: 0.007 m³



Tape

A: 300 mm
B: 300 mm
C: 620 mm
Volume: 0.056 m³

General information

- Delivery in full packing units only.
- Delivery of 2 m tubes in shorter length: Up to 10 % of carton content may be supplied in length of 1 m. Carton content of less than 20 m tubes of 2 m length may be delivered in two pieces of 1 m length.
- The pipe dimensions given in the tables refer to DIN EN 1057 for copper pipes and DIN EN 10255 for steel pipes.
- Kaimann accessories are to be used to ensure proper installation.

We create solutions

Always finding the best solution for customers – this simple resolution is what produces innovative ideas and continuous progress at Kaimann. The company is one of the leading suppliers of technology and innovation in elastomeric insulation and offers a broad product portfolio for a wide range of applications, e.g. in building services and technology as well as industry.

These products ensure higher energy efficiency and sustainability, combined with effective protection against corrosion, fire and noise. Thanks to environmental product declarations (EPDs), Kaimann insulation also provides more transparency for its life cycle assessment.



Kaimann GmbH

Hansastraße 2-5
33161 Hövelhof · Germany
Phone: +49 5257 9850-0
E-Mail: info.kaimann@saint-gobain.com
www.kaimann.com

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