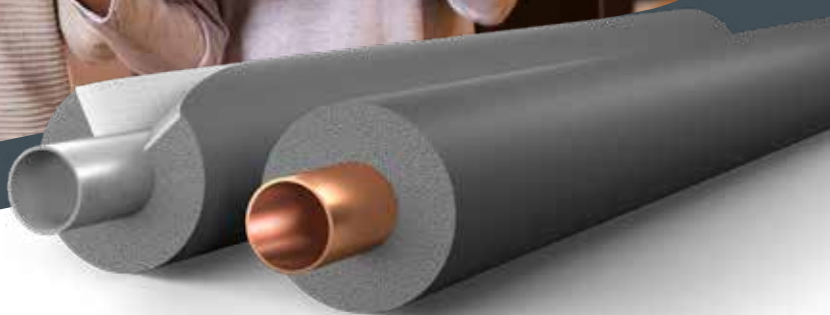




**NEW!** Limited smoke development  
thanks to Euroclass C<sub>L</sub>-s2, d0



## Kaiflex<sup>®</sup> HT s2

### Efficient and hygienic insulation for sanitary and heating systems

- Minimises heat and energy loss
- Adheres to high safety standards
- Dependable safety: Euroclass C<sub>L</sub>-s2, d0
- Additional protection against micro-organisms and mould
- Good noise insulation effect



## Efficient and hygienic insulation for sanitary and heating systems

The all-purpose insulation material Kaiflex HT s2 not only minimises heat and energy loss, but also provides reliable fire protection pursuant to the updated German Technical Building Rules (MVV TB). It therefore excels in two equally important areas, making it the ideal choice for developers who value good energy efficiency as well as adherence to high safety standards.

### The challenge of energy efficiency

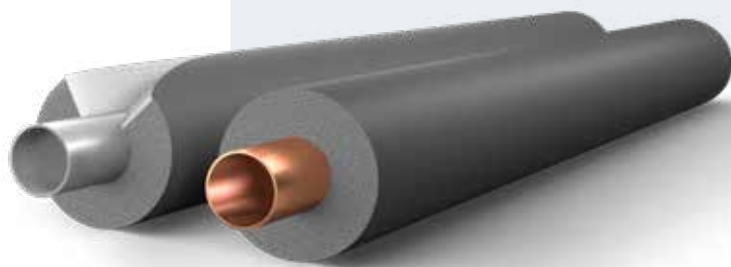
If pipes, valves, flanges or pipe supports are poorly or not continuously insulated, heat loss can be excessively high. In residential buildings or workspaces, this means energy is already lost before the heat even reaches its destination. Kaimann is continually improving its Kaiflex products to meet increasing demands for energy savings, without losing sight of important aspects like room climate, dependable product quality, fire safety and ease of application.

### High performance and versatility

The result: Kaiflex HT s2, a universally usable insulation for interior drinking water, hot and cold water pipes as well as heating pipes, in residential and commercial buildings. The extensive product range offers solutions for all applications addressed by the German Energy Saving Ordinance (GEG). For example, in Application Area A it can be used with 100% insulating layer thickness in unheated cellars. Thanks to its good heat insulation Kaiflex HT s2 can significantly reduce the energy costs of a building simply through insulating the accessible pipework. At the same time, the low heat conductivity ensures that the defined temperatures for cold water pipes (DIN 1988-200) and hot water pipes (DIN EN 806-2) are safely maintained, preventing the growth of legionella bacteria. Free from CFC and H-CFC gases as well as fibres, Kaiflex HT s2 also satisfies elevated hygienic requirements and contributes to a positive room climate.

The tube material with its closed-cell structure acts as a water vapour barrier and thereby pre-

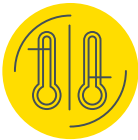
- Minimises heat and energy loss
- Adheres to high safety standards
- Dependable safety: Euroclass C<sub>L</sub>-s2, d0
- Additional protection against micro-organisms and mould
- Good noise insulation effect



vents the formation of condensation. Thanks to its antimicrobial properties, the insulation provides effective protection against mould and bacteria growth (Eurofin-certified). Furthermore, Kaiflex HT s2 reduces unwanted flow and tap noises of fluids in pipes.

### The challenge of fire protection

The requirements for limiting smoke development have become more stringent across Europe. The new German Technical Building Rules (MVV TB) mandate that flame-retardant building products fulfil the new minimum requirement C/C<sub>L</sub>-s2, d0. With Kaiflex HT s2, Kaimann offers dependable fire protection. This insulation material in construction material class C<sub>L</sub>-s2, d0 develops only small amounts of smoke, is self-extinguishing and doesn't drip off burning, and so in every category meets the requirements of the tightened definition of "flame-retardant" products pursuant to the revised Technical Building Rules (MVV TB).



### Excellent thermal values minimise energy loss

A technical system with suboptimal insulation generates increased operational costs. Kaiflex has low thermal conductivity, which leads to lower energy loss and increases the efficiency of the overall system.



### In-built anti-microbial resistance

Mould growth can have a negative impact on indoor air quality. Kaiflex offers effective protection against moisture penetration, is naturally anti-microbial and resistant to the development of mould and eliminates any chance for bacteria.



### Effective soundproofing reduces noise disturbance

Acoustic comfort improves quality of life. Kaimann products have noise insulation characteristics that reduce the noise level of technical systems, helping to make the surrounding environment quieter.



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

[www.kaimann.com](http://www.kaimann.com)

### Certified quality



EPD (Pending)  
Transparent ecological balance thanks to an "Environmental Product Declaration".

### Related system components and accessories from our product range



**Kaiflex HT Tape**  
Reliable sealing of seams along the insulation.



**Kaiflex Special Adhesive 414**  
Fast curing adhesive that creates a water vapour tight bond between Kaiflex surfaces, pipe and ductwork.

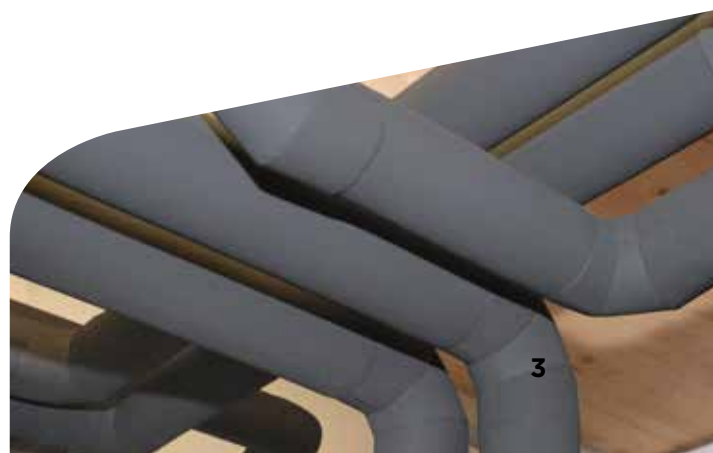
### Kaimann Services



**KaiCalc**  
Insulation thickness calculator for technical insulation in heating and cooling applications.  
[www.kaicalc.com](http://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](http://www.sgti-firepenetration.com)



## Kaiflex HT s2

### Technical Data

<b>Material type base</b>			Elastomeric foam based on synthetic rubber, Flexible Elastomeric Foam (FEF)	
<b>Cell structure</b>			Closed cell	
<b>Colour</b>			Anthracite	see remark (1)
<b>Max. service temperature</b>	Pipe Flat surface		+110 °C +85 °C	
<b>Min. service temperature</b>			As typical for sanitary and heating installations	
<b>Thermal conductivity</b>	$\lambda_9$ at +30 °C at +40 °C at +50 °C		0.038850 – 3.9643 · 10 <sup>-5</sup> $\vartheta$ + 1.607 · 10 <sup>-6</sup> $\vartheta^2$ ≤0.039 W/(m·K) ≤0.040 W/(m·K) ≤0.041 W/(m·K)	Test acc. to DIN EN ISO 8497 Test acc. to DIN EN 12667
<b>Fire behaviour</b>	Tube  Tape	Euroclass characteristics <sup>(1)</sup>  Euroclass characteristics <sup>(1)</sup>	C <sub>L</sub> -s2, d0  C <sub>L</sub> -s2, d0 (as part of a system incl. Kaiflex HT s2 tubes)	  Test acc. to DIN EN 13501-1
<b>Resistance to</b>	Corrosion		Satisfies requirements	In acc. with DIN 1988
<b>Health aspects</b>			Fibre free: For high hygiene requirements Free from heavy metal (e.g. cadmium, lead) and formaldehyde	
<b>Environmental aspects</b>			ODP Zero GWP Zero CFC & H-CFC-free	
<b>Other properties</b>	pH-Value		7	
<b>Storage</b>	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)	
<b>Tolerances &amp; limits</b>			Satisfies requirements	In acc. with EN 14304:2009+A1:2013
<b>Outdoor applications</b>			Needs protection against UV-radiation	see remark (2)

Remark (1) The Euroclass rating applies to metallic or solid mineral substrates.

Remark (2) 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 HT s2 Tube



**Colour: Anthracite · Length: 2 m**

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	9.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	9.0	HTs2-T-2m-09x015	4013374	204
18.0	15	3/8	17.2	10		9.0	HTs2-T-2m-09x018	4013375	168
22.0	20	1/2	21.3	15		9.0	HTs2-T-2m-09x022	4013376	112
		3/4	26.9	20		9.0	HTs2-T-2m-09x028	4013377	108
35.0	32	1	33.7	25		9.0	HTs2-T-2m-09x035	4013258	70
42.0	40	1 1/4	42.4	32		9.0	HTs2-T-2m-09x042	4013259	60
		1 1/2	48.3	40		9.0	HTs2-T-2m-09x048	4013261	50
54.0	50		54.0			9.0	HTs2-T-2m-09x054	4013263	44
		2	60.3	50		9.0	HTs2-T-2m-09x060	4013265	40
76.1	65	2 1/2	76.1	65	75.0	9.0	HTs2-T-2m-09x076	4013268	34
88.9	80	3	88.9	80		9.0	HTs2-T-2m-09x089	4013269	30

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	12.5-13.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	13.0	HTs2-T-2m-10x015	4013250	132
18.0	15	3/8	17.2	10		13.0	HTs2-T-2m-10x018	4013252	116
22.0	20	1/2	21.3	15		12.5	HTs2-T-2m-10x022	4013254	96
		3/4	26.9	20		12.5	HTs2-T-2m-10x028	4013256	72

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	18.5 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
28.0	25					18.5	HTs2-T-2m-15x028	4013378	48
35.0	32	1	33.7	25		18.5	HTs2-T-2m-15x035	4013379	44

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	24.0-27.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	27.0	HTs2-T-2m-20x015	4013271	40
18.0	15	3/8	17.2	10		26.5	HTs2-T-2m-20x018	4013273	40
22.0	20	1/2	21.3	15		26.0	HTs2-T-2m-20x022	4013275	40
		3/4	26.9	20		25.5	HTs2-T-2m-20x028	4013277	36
42.0	40	1 1/4	42.4	32		24.0	HTs2-T-2m-20x042	4013279	24
		1 1/2	48.3	40		26.0	HTs2-T-2m-24x048	4013381	24

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	30.5-53.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
28.0	25					39.0	HTs2-T-2m-30x028	4013384	18
35.0	32	1	33.7	25		38.0	HTs2-T-2m-30x035	4013386	16
42.0	40	1 1/4	42.4	32		49.5	HTs2-T-2m-40x042	4013389	8
		1 1/2	48.3	40		53.0	HTs2-T-2m-40x048	4013397	8
54.0	50		54.0			30.5	HTs2-T-2m-30x054	4013382	16
		2	60.3	50		37.0	HTs2-T-2m-30x060	4013383	10
76.1	65	2 1/2	76.1	65	75.0	44.0	HTs2-T-2m-40x076	4013388	8
88.9	80	3	88.9	80		52.0	HTs2-T-2m-40x089	4013391	6

**Kaiflex HT s2**

Tube · self-adhesive · with tangential cut


**Colour: Anthracite · Length: 2 m**

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	9.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
42.0	40	1 1/4	42.4	32		9.0	HTs2-T-2m-09x042-SA	4013260	60
		1 1/2	48.3	40		9.0	HTs2-T-2m-09x048-SA	4013262	50
54.0	50		54.0			9.0	HTs2-T-2m-09x054-SA	4013264	44
		2	60.3	50		9.0	HTs2-T-2m-09x060-SA	4013266	40

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	12.5-13.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	13.0	HTs2-T-2m-10x015-SA	4013251	132
18.0	15	3/8	17.2	10		13.0	HTs2-T-2m-10x018-SA	4013253	116
22.0	20	1/2	21.3	15		12.5	HTs2-T-2m-10x022-SA	4013255	96
		3/4	26.9	20		12.5	HTs2-T-2m-10x028-SA	4013257	72

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	18.5 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
28.0	25					18.5	HTs2-T-2m-15x028-SA	4013517	48
35.0	32	1	33.7	25		18.5	HTs2-T-2m-15x035-SA	4013380	44

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	24.0-27.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	27.0	HTs2-T-2m-20x015-SA	4013272	40
18.0	15	3/8	17.2	10		26.5	HTs2-T-2m-20x018-SA	4013274	40
22.0	20	1/2	21.3	15		26.0	HTs2-T-2m-20x022-SA	4013276	40
28.0	25	3/4	26.9	20		25.5	HTs2-T-2m-20x028-SA	4013278	36
42.0	40	1 1/4	42.4	32		24.0	HTs2-T-2m-20x042-SA	4013284	24
		1 1/2	48.3	40		26.0	HTs2-T-2m-24x048-SA	4013519	24

**Kaiflex HT s2**

Tube · endless





**Colour: Anthracite**

Copper pipe Cu		Iron & steel pipe Fe		Plastic pipe	12.5-13.0 mm Insulation thickness				
OD mm	Nom. width DN	Inch	OD mm	Nom. width DN	OD mm	act. thickn. mm	Dimension / Reference	Order No.	m/ carton
15.0	10	1/4	13.5	8	14.0	13.0	HTs2-T-e-10x015	4013283	21
18.0	15	3/8	17.2	10		13.0	HTs2-T-e-10x018	4013282	20
22.0	20	1/2	21.3	15		12.5	HTs2-T-e-10x022	4013281	19
28.0	25	3/4	26.9	20		12.5	HTs2-T-e-10x028	4013280	17








## Accessories

### Adhesive · Cleaner · Protective Coating

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


## Accessories

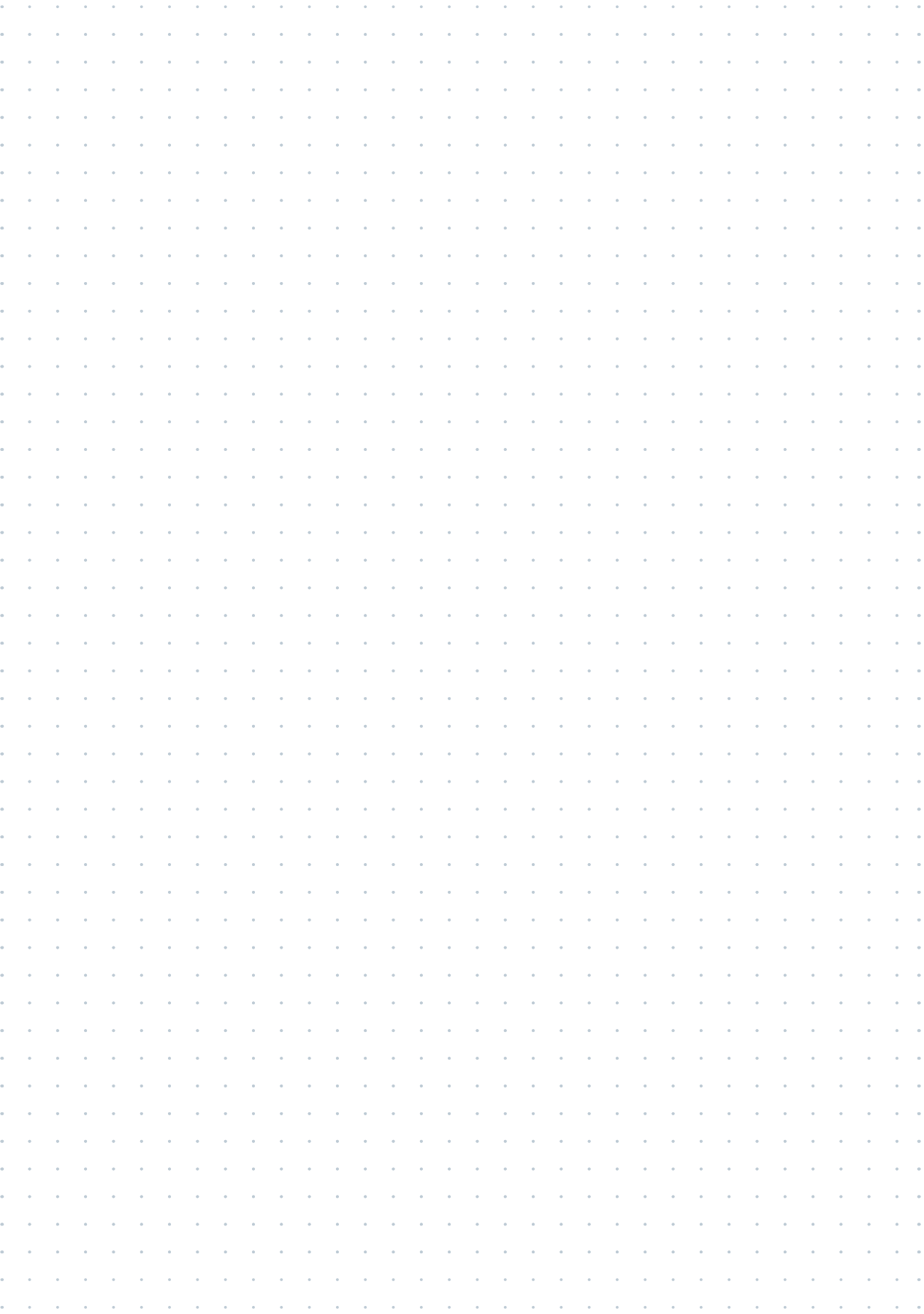
### Glue pump · Knife · Gel ink pen

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

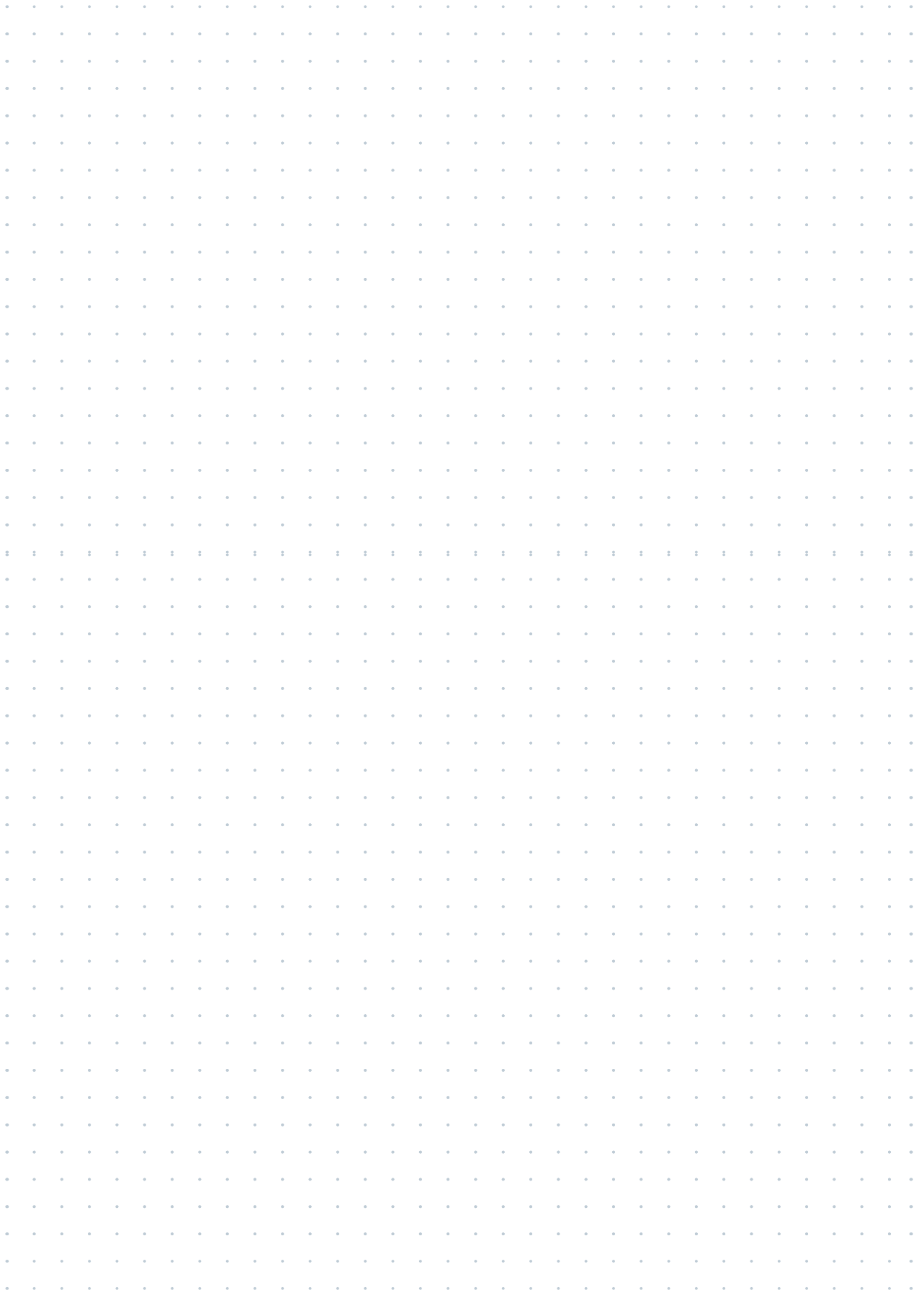
## Accessories

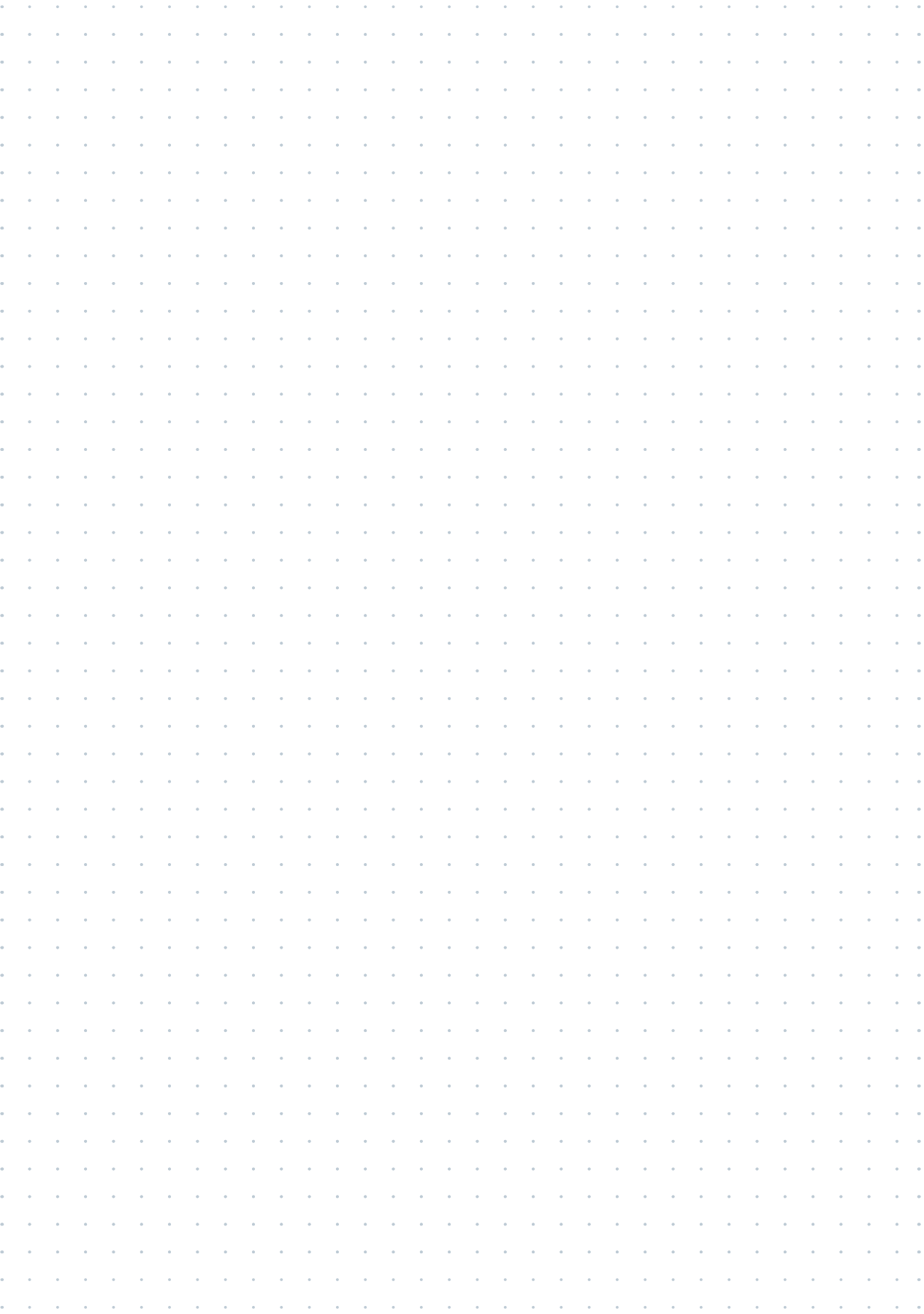
### Tape

		Details	Dimension / Reference	Order No.	Width mm	Length m	Thickness mm	Pcs./ PU
	Kaiflex HT Tape	self-adhesive	<b>Tp-HT-50/15/3-SA</b>	4013521	50	15	3	12









## Tolerances, Limits

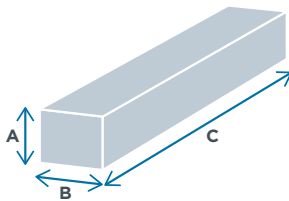
EN 14304:2009+A1:2013 · Flexible Elastomeric Foam (FEF)

Delivery form	Length	Width	Thickness		Perpendicularity	Inner diameter	
			Stated	Limits		$D_i \leq 100$	$D_i > 100$
Tube	$\pm 1.5 \%$	-	$d_p \leq 8$ $8 < d_p \leq 18$ $18 < d_p \leq 31$ $d_p > 31$	$\pm 1.0$ $\pm 1.5$ $\pm 2.5$ $\pm 3.0$	3.0 mm	$D_{iD} + 1 \leq D_i \leq D_{iD} + 4$	$D_{iD} + 1 \leq D_i \leq D_{iD} + 6$
Tape	+5.0 % -1.5 %	$\pm 2.0 \%$	$d_p = 3$	-0.1 +1.5	-	-	-

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

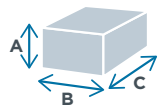
## Kaiflex HT s2

Packaging types



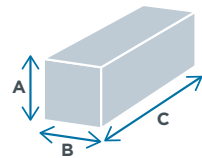
### Tube · Length: 2 m

A: 320 mm  
B: 410 mm  
C: 2120 mm  
Volume: 0.278 m<sup>3</sup>



### Tube · endless

A: 300 mm  
B: 500 mm  
C: 500 mm  
Volume: 0.075 m<sup>3</sup>



### Tape

A: 300 mm  
B: 300 mm  
C: 620 mm  
Volume: 0.056 m<sup>3</sup>

## 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.



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