



# Kaiflex® ST

**Versatile application. Proven quality. Sustainable impact.**

- Universal insulation material for busy public and commercial buildings
- Certified fire performance meets demanding international requirements for elastomeric insulation materials
- Reliably prevents condensation and reduces the risk of corrosion under the insulation
- Additional protection against micro-organisms and mould



## Versatile application. Proven quality. Sustainable impact.

Kaiflex ST closed-cell synthetic rubber insulation features universal applicability. It can be used for hot and cold pipes, for any system size and different pipe diameters, in small furnace rooms and in large projects. Thanks to the wide product assortment and the right options like Kaiflex ST tape and Kaiflex RT-ST pipe supports, the material can be used for products of any size without switching material or manufacturer. All this has made Kaiflex ST the Kaimann standard in technical insulation.

Kaiflex ST is used in cooling and air conditioning systems for insulating pipes and ducts in highly frequented public and commercial buildings, like airports, large office complexes, hotels, and apartment buildings, as well as in industrial plants and ships. Thanks to its antimicrobial and fibre-free structure, the material meets high hygienic requirements and is especially suitable for insulation in healthcare facilities like hospitals.

### Tested and certified – very good technical attributes

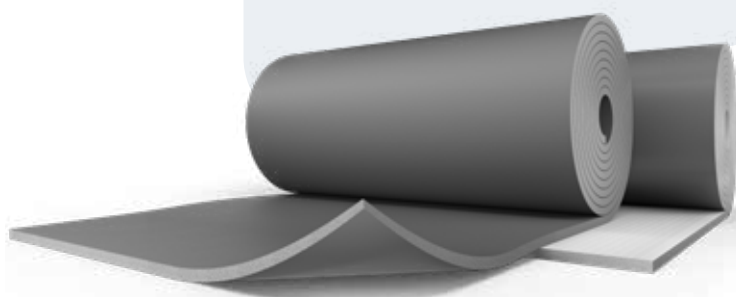
Extensively tested and internationally certified, Kaiflex ST features broad usability and technical characteristics of the highest standard. Thanks to its very low thermal conductivity of up to  $\lambda \leq 0,033$  (W/m•K) at 0 °C and outstanding water vapour diffusion resistance of up to  $\mu \geq 10.000$ , this Kaimann insulation is very energy-efficient and reliably prevents condensation. At Euroclass B-s3, d0 (DIN EN 13501-1), Class O (in acc. with UK building regulations) and Class 1 very low surface spread of flame (test acc. to BS 476-7), this elastomer insulation also meets the highest safety requirements regarding fire behaviour.

The very good technical characteristics remain consistently high across all insulation thicknesses, and ensure reliable insulation performance over the entire operational life of the system. Even at low insulation thickness, this proven material

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protects long-term from energy losses, acts as an effective water vapour barrier and so minimizes the risk of corrosion under insulation.

The material is available in sheets, as a standard or self-adhesive product. Whichever version is chosen, its flexible installation makes Kaiflex ST a winner.

Environmental Product Declarations (EPD) make the ecological assessment of Kaimann insulation materials even more transparent. In this way, the company assists in the planning and certification of sustainable buildings.



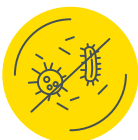
### High safety due to good fire behaviour

The requirements for certified safety in case of fire have increased worldwide for elastomeric insulation materials. Kaiflex reduces the spread of fire and smoke, is self-extinguishing and does not drip off when burning.



### 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).



### 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.



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



FM Approved  
Highest required standard of quality, technical integrity and performance for use in commercial and industrial facilities.

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



Kaiflex RT-ST  
Insulated pipe support to prevent condensation and thermal bridges.



Kaiflex FT  
Insulated duct support to prevent condensation and thermal bridges.



Special Adhesive, Tape, Tools,...  
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](http://www.kaicalc.com)



## Kaiflex ST 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		
<b>Max. service temperature</b>	Flat surface	+85 °C		
<b>Min. service temperature</b>		-50 °C (-200 °C)	see remark (1)	
<b>Thermal conductivity</b>	Thickness <32 mm	$\lambda_{\theta}$ at -10 °C at 0 °C at +10 °C $\lambda_{\theta}$ at -10 °C at 0 °C at +10 °C	$0.033 + 7.1316 \cdot 10^{-5} \cdot \theta + 1.2533 \cdot 10^{-6} \cdot \theta^2$ $\leq 0.032 \text{ W/(m}\cdot\text{K)}$ $\leq 0.033 \text{ W/(m}\cdot\text{K)}$ $\leq 0.034 \text{ W/(m}\cdot\text{K)}$ $0.036 + 7.1316 \cdot 10^{-5} \cdot \theta + 1.2533 \cdot 10^{-6} \cdot \theta^2$ $\leq 0.035 \text{ W/(m}\cdot\text{K)}$ $\leq 0.036 \text{ W/(m}\cdot\text{K)}$ $\leq 0.037 \text{ W/(m}\cdot\text{K)}$	Test acc. to DIN EN 12667           Test acc. to DIN EN 12667
	Thickness $\geq$ 32 mm			
<b>Water vapour permeability</b>	Thickness <32 mm	Moisture resistance factor $\mu$	$\geq 10000$  no separate vapour barrier required	Test acc. to DIN EN 12086   Test acc. to DIN EN 12086
	Thickness $\geq$ 32 mm	Moisture resistance factor $\mu$	$\geq 7000$  no separate vapour barrier required	Test acc. to DIN EN 12086
<b>Fire behaviour</b>		Euroclass characteristics <sup>(2)</sup>	B-s3, d0	Test acc. to DIN EN 13501-1
		Characteristics acc. to British Standard	Class O	In acc. with UK Building Regulations
		Surface spread of flame	Class 1	Test acc. to BS 476-7
		Fire propagation	Total spread index: <12 Sub Index 1: <6 Self-extinguishing, no drips	Test acc. to BS 476-6 Test acc. to BS 476-6
<b>Resistance to</b>	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
<b>Insulation material index number acc. to AGI</b>			36.07.02.05.04	
<b>Environmental aspects</b>			No biocides added	
<b>Health aspects</b>			Fibre free: For high hygiene requirements  Free from heavy metal (e.g. cadmium, lead) and formaldehyde	
<b>Other properties</b>	ph-Value		7	
<b>Other certificates / approvals</b>			CE-compliant UL-approved (UL94) FM-approved DNV, Lloyd's Register, See BG IAC Gold	In acc. with UL94 V-0, HF 1    Gemäß ISO 16000, Part 3 & 6

**Kaiflex ST**  
 Technical Data

<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 (3)

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

Remark (2) The Euroclass rating applies to metallic or solid mineral substrates.

Remark (3) 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 ST

Sheet · endless



Colour: Anthracite · Width: 1 m · OD coil: 40 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m <sup>2</sup> / carton
6	ST-Sh-e-1m-40BX-06	4012754	18	18
10	ST-Sh-e-1m-40BX-10	4001584	10	10
13	ST-Sh-e-1m-40BX-13	4001585	8	8
19	ST-Sh-e-1m-40BX-19	4001586	6	6
25	ST-Sh-e-1m-40BX-25	4012756	4	4
32	ST-Sh-e-1m-40BX-32	4001587	3	3

Colour: Anthracite · Width: 1 m · OD coil: 53 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m <sup>2</sup> / carton
6	ST-Sh-e-1m-53BX-06	4001537	30	30
10	ST-Sh-e-1m-53BX-10	4001539	20	20
13	ST-Sh-e-1m-53BX-13	4001540	14	14
19	ST-Sh-e-1m-53BX-19	4001542	10	10
25	ST-Sh-e-1m-53BX-25	4001543	8	8
32	ST-Sh-e-1m-53BX-32	4001544	6	6
40	ST-Sh-e-1m-53BX-40	4012596	5.5	5.5
50	ST-Sh-e-1m-53BX-50	4012226	4	4

## Kaiflex ST

Sheet · endless · self-adhesive



Colour: Anthracite · Width: 1 m · OD coil: 40 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m <sup>2</sup> / carton
6	ST-Sh-e-1m-40BX-06-SA	4012757	18	18
10	ST-Sh-e-1m-40BX-10-SA	4001588	10	10
13	ST-Sh-e-1m-40BX-13-SA	4001589	8	8
19	ST-Sh-e-1m-40BX-19-SA	4001590	6	6
25	ST-Sh-e-1m-40BX-25-SA	4012759	4	4
32	ST-Sh-e-1m-40BX-32-SA	4012760	3	3

Colour: Anthracite · Width: 1 m · OD coil: 53 cm · in box

Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m <sup>2</sup> / carton
6	ST-Sh-e-1m-53BX-06-SA	4001563	30	30
10	ST-Sh-e-1m-53BX-10-SA	4001564	20	20
13	ST-Sh-e-1m-53BX-13-SA	4001565	14	14
19	ST-Sh-e-1m-53BX-19-SA	4001567	10	10
25	ST-Sh-e-1m-53BX-25-SA	4001568	8	8
32	ST-Sh-e-1m-53BX-32-SA	4001569	6	6
40	ST-Sh-e-1m-53BX-40-SA	4012597	5.5	5.5
50	ST-Sh-e-1m-53BX-50-SA	4012594	4	4

**Kaiflex ST**

Sheet · pre-cut



Colour: Anthracite · Length: 2.0 m · Width: 1.0 m · in box

Insulation thickness mm	Dimension / Reference	Order No.	m <sup>2</sup> / carton
50	ST-Sh-c-2x1m-BX-50	4001561	6

**Kaiflex ST**

Sheet · pre-cut · self-adhesive






Colour: Anthracite · Length: 2.0 m · Width: 1.0 m · in box

Insulation thickness mm	Dimension / Reference	Order No.	m <sup>2</sup> / carton
50	ST-Sh-c-2x1m-BX-50-SA	4001583	6






## 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

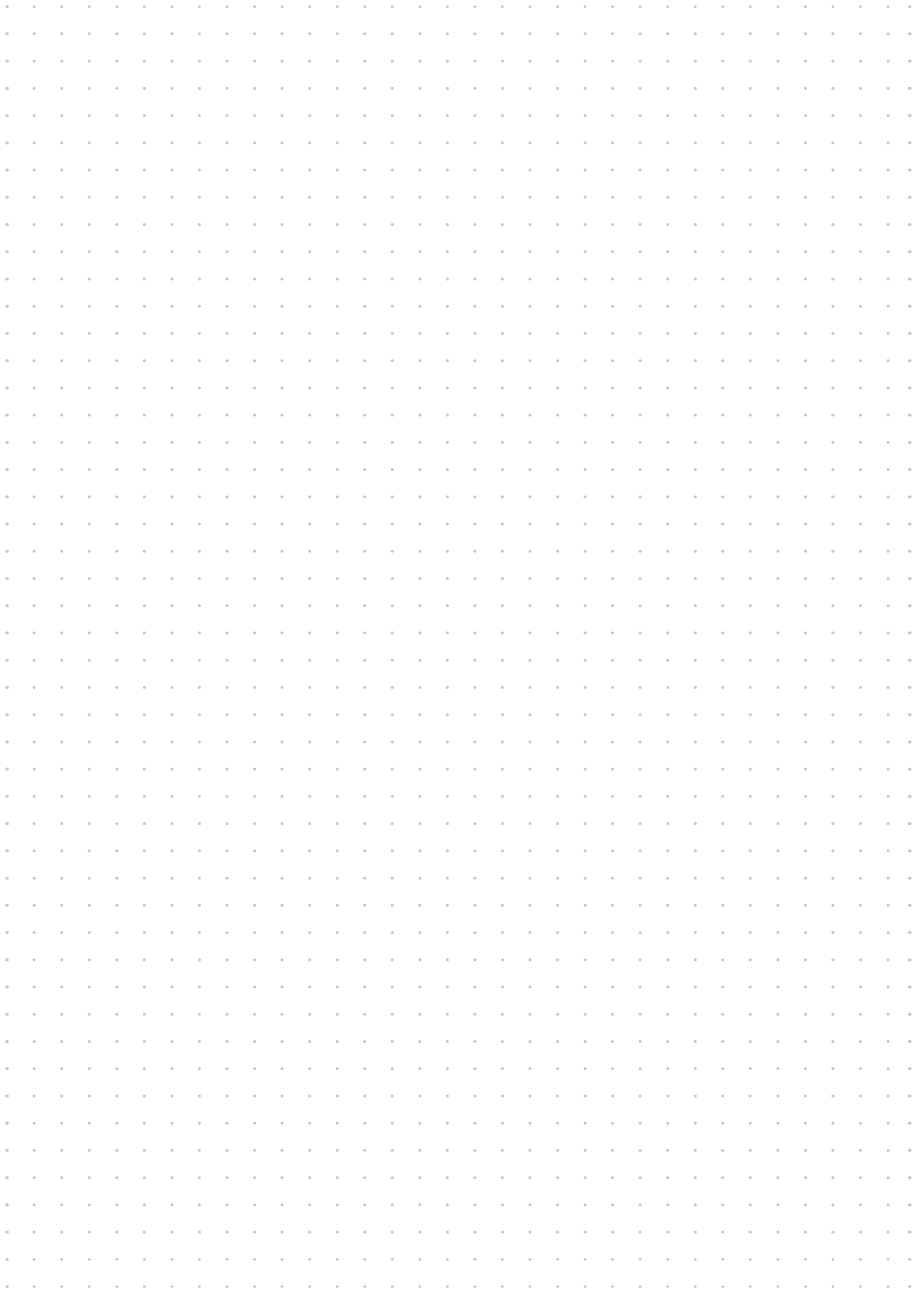
		Details	Dimension / Reference	Order No.	Pcs./PU
<b>Glue pump</b>					
	Glue pump	long spout · 17 mm brush	<b>Gl-Pmp-long</b>	4004718	1
	Glue pump	short spout · 17 mm brush	<b>Gl-Pmp-short</b>	4004715	1
	11 mm brush	for glue pump	<b>Gl-Pmp-Brush-11</b>	4004716	1
	17 mm brush	for glue pump	<b>Gl-Pmp-Brush-17</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

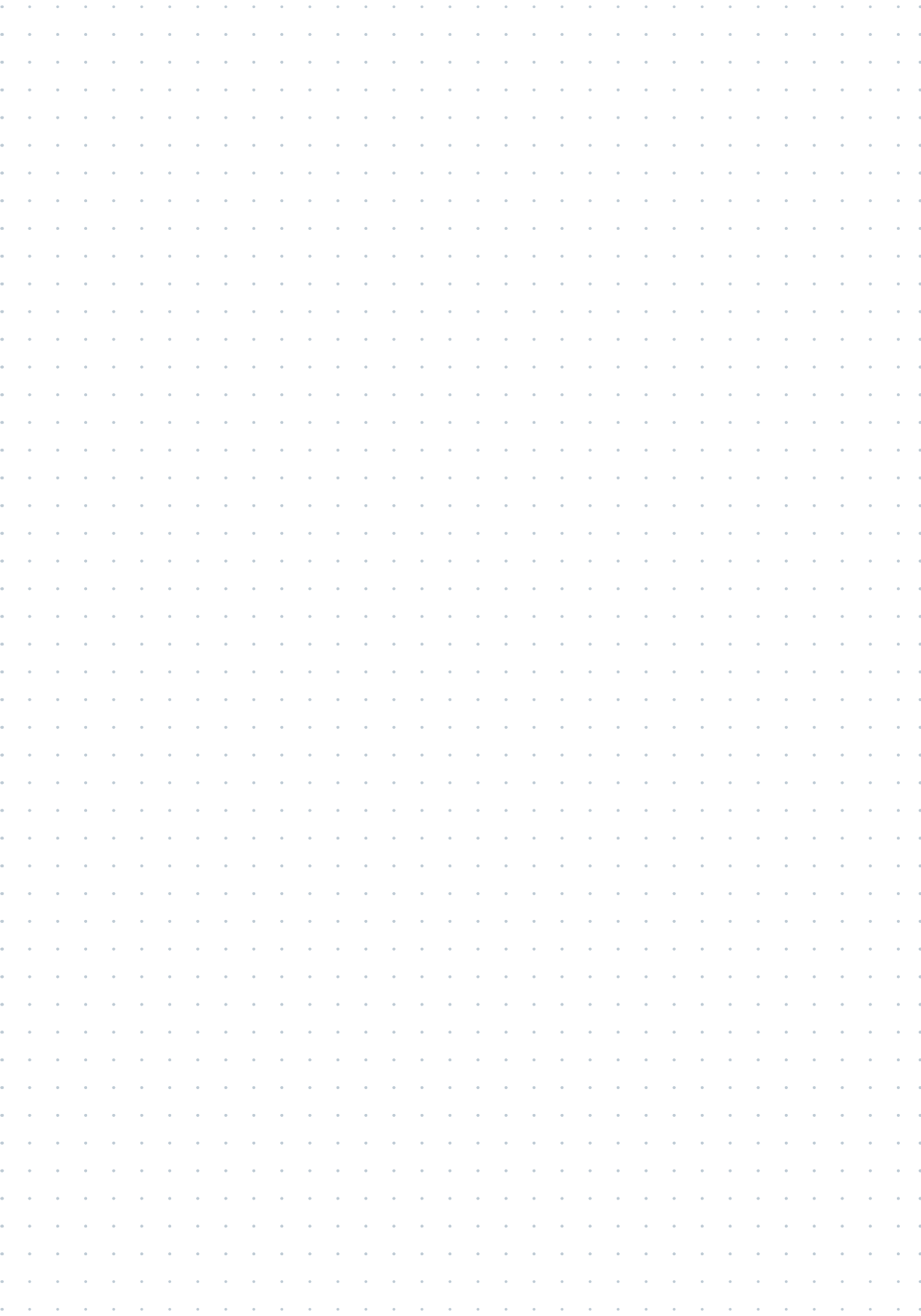
## Accessories

### Tape

		Details	Dimension / Reference	Order No.	Width mm	Length m	Thickness mm	Pcs./PU
	Kaiflex ST Tape	self-adhesive	<b>Tp-ST-50/15/3-SA</b>	4004675	50	15	3	12







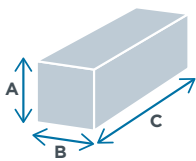
**Tolerances, Limits**

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

Delivery form	Length	Width	Thickness		Perpendicularity	Inner diameter	
			Stated	Limits		$D_i \leq 100$	$D_i > 100$
Sheet · pre-cut	±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)	-	-
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	-	-	-

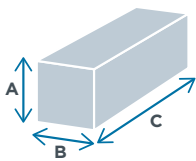
Measurements in mm ·  $D_i$  = inner diameter ·  $d_b$  = Nominal thickness of product ·  $D_o$  = Nominal thickness of a tube

**Kaiflex ST**  
Packaging types



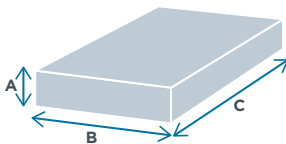
**Sheet · endless**  
**Width: 1 m**  
**OD coil: 40 cm**

A: 410 mm  
B: 410 mm  
C: 1060 mm  
Volume: 0.178 m<sup>3</sup>



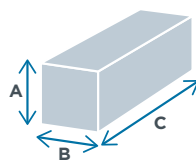
**Sheet · endless**  
**Width: 1 m**  
**OD coil: 53 cm**

A: 560 mm  
B: 560 mm  
C: 1060 mm  
Volume: 0.332 m<sup>3</sup>



**Sheet · pre-cut**  
**Length: 2 m**  
**Width: 1 m**

A: 170 mm  
B: 1068 mm  
C: 2080 mm  
Volume: 0.378 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.
- 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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