



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

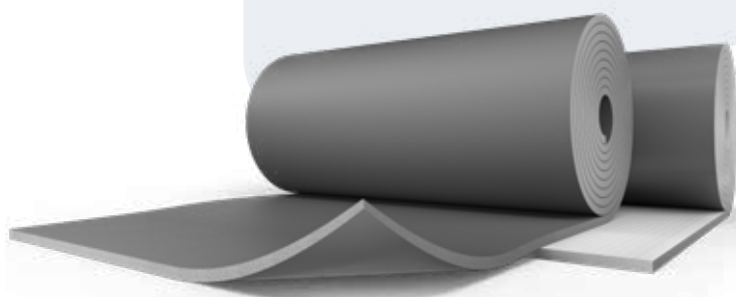
Extensively tested and internationally certified, Kaiflex ST features broad usability and technical characteristics of the highest standard. Thanks to its very low thermal conductivity of up to $\lambda \leq 0,033$ (W/m•K) at 0 °C and outstanding water vapour diffusion resistance of up to $\mu \geq 10.000$, 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

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



Kaiflex ST Technical Data

Material type base		Elastomeric foam based on synthetic rubber, Flexible Elastomeric Foam (FEF)		
Cell structure		Closed cell		
Colour		Anthracite		
Max. service temperature	Flat surface	+85 °C		
Min. service temperature		-50 °C (-200 °C)	see remark (1)	
Thermal conductivity	Thickness <32 mm	λ_{θ} at -10 °C at 0 °C at +10 °C λ_{θ} at -10 °C at 0 °C at +10 °C	$0.033 + 7.1316 \cdot 10^{-5} \cdot \theta + 1.2533 \cdot 10^{-6} \cdot \theta^2$ $\leq 0.032 \text{ W/(m·K)}$ $\leq 0.033 \text{ W/(m·K)}$ $\leq 0.034 \text{ W/(m·K)}$ $0.036 + 7.1316 \cdot 10^{-5} \cdot \theta + 1.2533 \cdot 10^{-6} \cdot \theta^2$ $\leq 0.035 \text{ W/(m·K)}$ $\leq 0.036 \text{ W/(m·K)}$ $\leq 0.037 \text{ W/(m·K)}$	Test acc. to DIN EN 12667 Test acc. to DIN EN 12667
	Thickness ≥ 32 mm			
Water vapour permeability	Thickness <32 mm	Moisture resistance factor μ	≥ 10000 no separate vapour barrier required	Test acc. to DIN EN 12086 Test acc. to DIN EN 12086
	Thickness ≥ 32 mm	Moisture resistance factor μ	≥ 7000 no separate vapour barrier required	Test acc. to DIN EN 12086
Fire behaviour		Euroclass characteristics ⁽²⁾	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
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			36.07.01.05.01	
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		7	
Other certificates / approvals			CE-compliant UL-approved (UL94) FM-approved DNV, Lloyd's Register, See BG IAC Gold Minergie-ECO Base	In acc. with UL94 V-0, HF 1 In acc. with ISO 16000, Part 3 & 6

Kaiflex ST
 Technical Data

Storage	Self-adhesive products	The material must be installed within one year. 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) 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 ² / 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
16	ST-Sh-e-1m-40BX-16	4012755	7	7
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 ² / 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
16	ST-Sh-e-1m-53BX-16	4001541	12	12
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 ² / 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
16	ST-Sh-e-1m-40BX-16-SA	4012758	7	7
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 ² / 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
16	ST-Sh-e-1m-53BX-16-SA	4001566	12	12
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






Accessories

Adhesive · Cleaner · Protective Coating

		Details	Dimension / Reference	Order No.	Container type	Content	Pcs./ PU
Adhesive							
	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

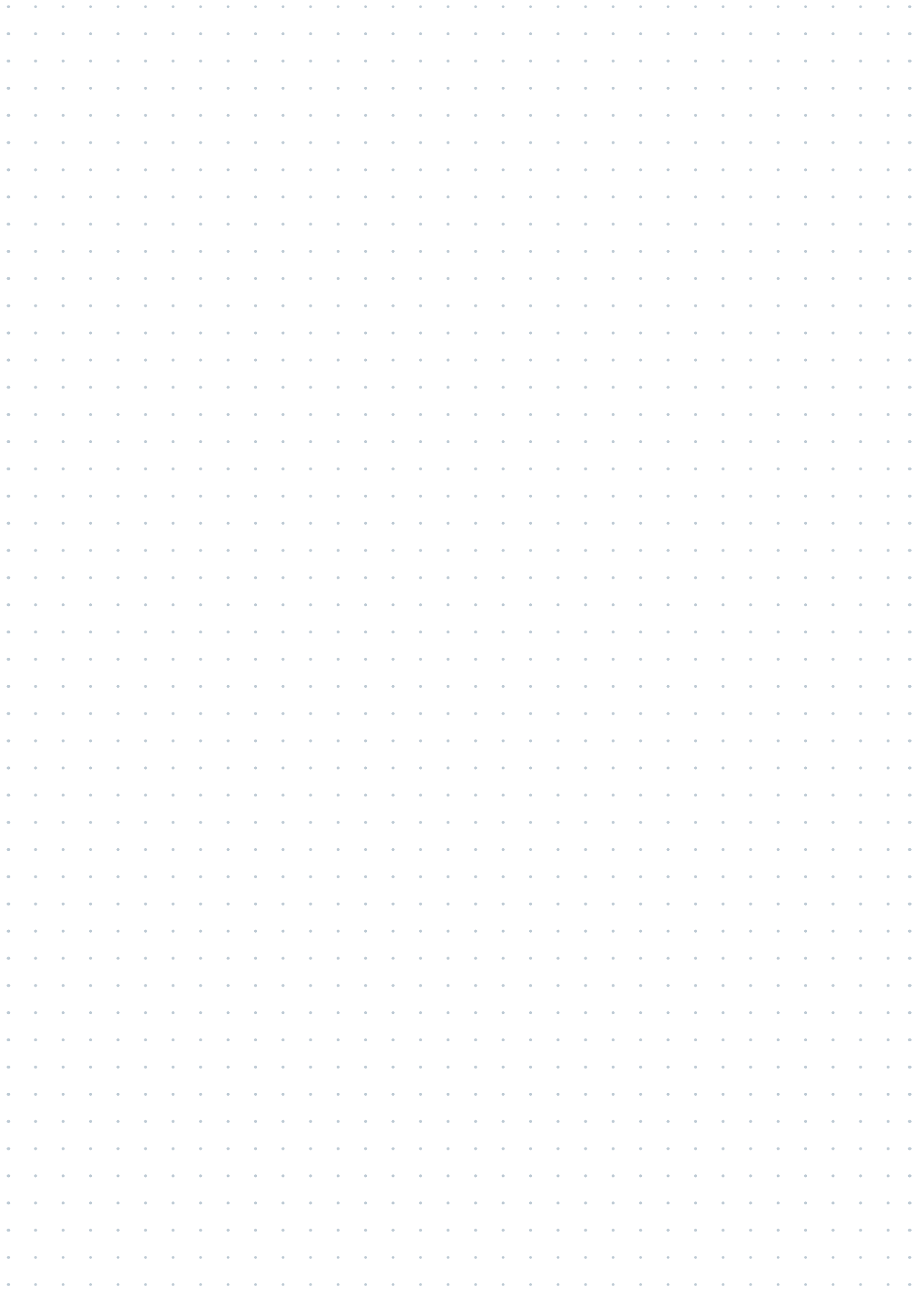
Glue pump · Knife · Gel ink pen

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

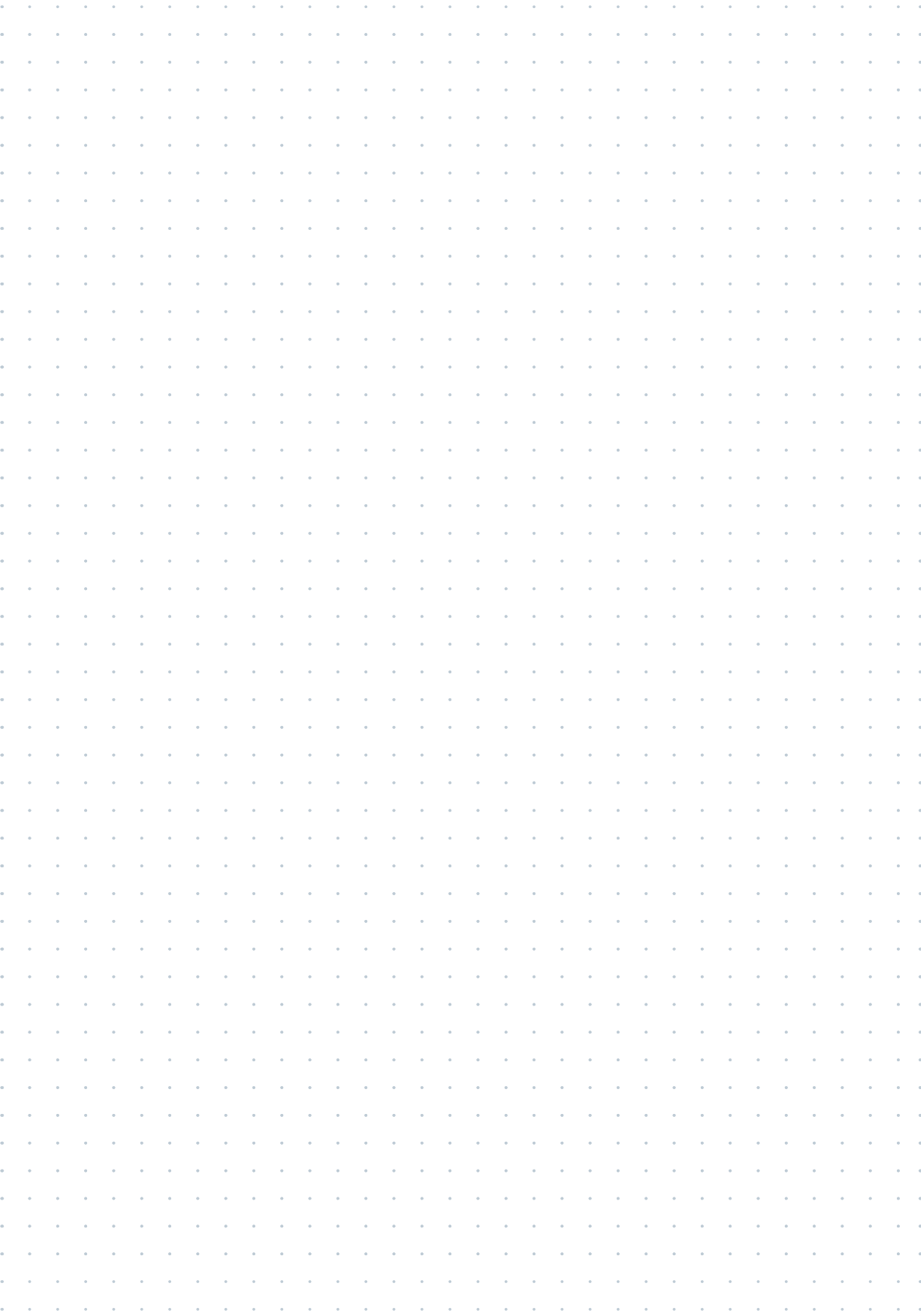
Accessories

Tape

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







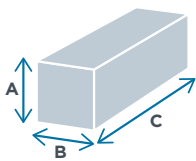
Tolerances, Limits

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 · 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	-	-	-

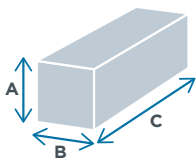
Measurements in mm · D_i = inner diameter · d_b = Nominal thickness of product · D_{ob} = Nominal thickness of a tube

Kaiflex ST
Packaging types



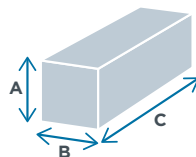
Sheet · endless
Width: 1 m
OD coil: 40 cm

A: 410 mm
B: 410 mm
C: 1060 mm
Volume: 0.178 m³



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

A: 560 mm
B: 560 mm
C: 1060 mm
Volume: 0.332 m³



Tape

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



General information

- Delivery in full packing units only.
- Kaimann accessories are to be used to ensure proper installation.

WECREATESOLUTIONS

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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