

## Kaiflex Duct System

### **Efficient insulation of ventilation systems**

- Reliable insulation of ventilation systems with outside air intake
- Reliably prevents condensation and reduces the risk of corrosion under the insulation
- Good noise insulation effect
- Fiber-free: for high hygienic requirements
- The standard for construction projects with high economic requirements









# **Efficient insulation** of ventilation systems

Ventilation systems have many different components that work together to ensure a good supply of fresh air. In order for them to operate efficiently, the ducts must be insulated. This is particularly the case for ducts taking in outside air, where insulation outside or inside the duct is used to protect against condensation. With Kaiflex Duct, Kaimann offers a solution with the optimum insulation layer thickness for rectangular ventilation ducts and shafts, which insulates effectively and economically.

#### Long-lasting performance

The closed-cell foam stands up to the considerable temperature difference between the duct surface and the surrounding air along with the humidity, avoids corrosion and prevents energy losses – for the entire life of the system. Kaiflex Duct also effectively reduces the transmission of unwelcome noises through ventilation equipment.

Its acoustic properties, combined with a fibre-free structure to meet strict hygienic requirements,

make Kaiflex Duct ideal for use in public, commercial and industrial buildings.

Kaiflex Duct ALU plus also has an aluminium coating that protects the surface and looks good, for visible installation situations.

Optimised for ventilation ducts with its 1.5 m width, Kaiflex Duct plus and Kaiflex Duct ALU plus are fast and easy to install.

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



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

projects with high economic

requirements



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

www.kaimann.com



### **Kaiflex Duct System**

### Technical Data

Material type base			Elastomeric foam based on synthetic rubber, Flexible Elastomeric Foam (FEF)	
Material type Coating	Kaiflex Duct ALU plus		Aluminium	
Cell structure			Closed cell	
		Base material	Anthracite	
Colour	Kaiflex Duct ALU plus	Coating	Silver	
Max. service temperature			+70 °C	
Min. service temperature			-40 °C	see remark (1)
Thermal conductivity	λ <sub>6</sub> at -10 °C at 0 °C at +10 °C		0.036 + 7.2 · 10 <sup>-5</sup> ϑ + 1.2 · 10 <sup>-6</sup> ϑ <sup>2</sup> ≤0.035 W/(m·K) ≤0.036 W/(m·K) ≤0.037 W/(m·K)	Test acc. to DIN EN 12667
Mater vaneur neumanhility	Moisture resistance	factor μ	≥7000	Test acc. to DIN EN 12086
Water vapour permeability			no separate vapour barrier required	
Fire behaviour	Kaiflex Duct Kaiflex Duct plus Kaiflex Duct ALU plus	Euroclass characteristics (2) Euroclass characteristics (2) Euroclass characteristics (2)	E B-s3, d0 B-s3, d0 Self-extinguishing, no drips	Test acc. to DIN EN 13501-1 Test acc. to DIN EN 13501-1 Test acc. to DIN EN 13501-1
Resistance to	Corrosion		Satisfies requirements	In acc. with DIN 1988
Insulation material index number acc. to AGI	Corrosion		36.07.03.05.04	in acc. with bit 1966
Health aspects			Fibre free: For high hygiene requirements Free from heavy metal (e.g. cadmium, lead) and formaldehyde	
Other properties	pH-Value		Neutral	
Other certificates / approvals			CE-compliant	
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			Not suitable for outdoor installation.	

Remark (1) For temperatures below -40 °C please contact our Technical Support Team for advice.

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

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### **Kaiflex Duct**

 $Sheet \cdot endless \cdot self\text{-}adhesive$ 



Colour: Anthracite · Wid	Colour: Anthracite · Width: 1 m · OD coil: 40 cm · in box							
Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m²/ carton				
6	DC-Sh-e-1m-40BX-06-SA	4012764	18	18				
10	DC-Sh-e-1m-40BX-10-SA	4012766	10	10				
12	DC-Sh-e-1m-40BX-12-SA	4012767	8	8				
15	DC-Sh-e-1m-40BX-15-SA	4012768	7	7				
20	DC-Sh-e-1m-40BX-20-SA	4012769	6	6				
25	DC-Sh-e-1m-40BX-25-SA	4012770	4	4				
30	DC-Sh-e-1m-40BX-30-SA	4012771	3	3				

### **Kaiflex Duct plus**

Sheet  $\cdot$  endless  $\cdot$  self-adhesive



Colour: Anthracite · Width: 1.5 m · OD coil: 60 cm · in bag							
Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m²/ carton			
6	DC+-Sh-e-1,5m-60BG-06-SA	4010630	30	45.0			
10	DC+-Sh-e-1,5m-60BG-10-SA	4010632	20	30.0			
12	DC+-Sh-e-1,5m-60BG-12-SA	4010633	15	22.5			
20	DC+-Sh-e-1,5m-60BG-20-SA	4010635	10	15.0			
30	DC+-Sh-e-1,5m-60BG-30-SA	4010637	6	9.0			



### **Kaiflex Duct ALU plus**

Sheet  $\cdot$  endless  $\cdot$  coated (ALU)  $\cdot$  self-adhesive



Colour: Anthracite/Silve	Colour: Anthracite/Silver · Width: 1 m · OD coil: 40 cm · in box						
Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m²/ carton			
6	DC-A+-Sh-e-1m-40BX-06-SA	4013751	18	18			
10	DC-A+-Sh-e-1m-40BX-10-SA	4013755	10	10			
12	DC-A+-Sh-e-1m-40BX-12-SA	4013757	8	8			
15	DC-A+-Sh-e-1m-40BX-15-SA	4013760	7	7			
20	DC-A+-Sh-e-1m-40BX-20-SA	4013761	6	6			
25	DC-A+-Sh-e-1m-40BX-25-SA	4013762	4	4			
30	DC-A+-Sh-e-1m-40BX-30-SA	4013763	3	3			

Colour: Anthracite/Silve	Colour: Anthracite/Silver · Width: 1.5 m · OD coil: 60 cm · in bag						
Insulation thickness mm	Dimension / Reference	Order No.	rm/ carton	m²/ carton			
6	DC-A+-Sh-e-1,5m-60BG-06-SA	4014154	30	45,0			
10	DC-A+-Sh-e-1,5m-60BG-10-SA	4014155	20	30,0			
12	DC-A+-Sh-e-1,5m-60BG-12-SA	4014156	15	22,5			
15	DC-A+-Sh-e-1,5m-60BG-15-SA	4014157	12	18,0			
20	DC-A+-Sh-e-1,5m-60BG-20-SA	4014158	10	15,0			
25	DC-A+-Sh-e-1,5m-60BG-25-SA	4014159	8	12,0			
30	DC-A+-Sh-e-1,5m-60BG-30-SA	4014160	6	9,0			

### **Kaiflex FT**

Duct support



Colour: Anthracite · Len	Colour: Anthracite · Length: 2 m							
Insulation thickness mm	Dimension / Reference	Order No.	Width mm	m/ carton	Pcs./ carton			
13	FT-KK+-13	4004055	75	24	12			
19	FT-KK+-19	4004056	100	20	10			
32	FT-KK+-32	4004057	100	12	6			

### Kaiflex Duct System

### Accessories

 ${\sf Adhesive} \cdot {\sf Cleaner} \cdot {\sf Protective} \; {\sf Coating}$ 

		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	
Eur-	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								
<b>2</b> 3.1	Kaiflex Cleaner		Clean-CA1000	4004732	Can	1.0	12	
Protective Coating	Protective Coating							
of law berry.	Kaifinish Color	Colour: White (approx. RAL 9010)	KF-Co-wh-CA750	4004719	Can	0.75 I	4	
	Kaifinish Color	Colour: Grey (approx. RAL 7035)	KF-Co-gr-CA750	4004720	Can	0.75 l	4	

### Accessories

Glue pump  $\cdot$  Knife  $\cdot$  Gel ink pen

		Details	Dimension/Reference	Order No.	Pcs./ PU
Glue pump					
	Glue pump	long spout · 17 mm brush	GI-Pmp-long	4004718	1
73	Glue pump	short spout · 17 mm brush	GI-Pmp-short	4004715	1
11	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
1	Kaiflex EF Tape	self-adhesive	Tp-EF-50/15/3-SA	4004673	50	15	3	12

### **Tolerances, Limits**

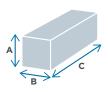
EN 14304:2009+A1:2013 · Flexible Elastomeric Foam (FEF)

D. II.	Lawath	1	Thickness		Danie and Handardton	Inner diameter	
Delivery form	Length	Width	Stated Limits Perpendicularity	D <sub>i</sub> ≤ 100	D <sub>i</sub> > 100		
Sheet - endless	+5.0 % -1.5 %	±2.0 %	$d_{D} \le 6$ $6 < d_{D} \le 19$ $d_{D} > 19$	±1.0 ±1.5 ±2.0	3.0 mm/m (Length/Width) - 3.0 mm (Thickness)	-	-
Таре	+5.0 % -1.5 %	±2.0 %	d <sub>D</sub> = 3	-0.1 +1.5	-	-	-

 $\label{eq:measurements} \mbox{Measurements in mm} \ \cdot \ \mbox{D}_{\mbox{\tiny I}} = \mbox{Innner diameter} \ \cdot \ \mbox{d}_{\mbox{\tiny D}} = \mbox{Nominal thickness of product} \ \cdot \ \mbox{D}_{\mbox{\tiny I},\mbox{\scriptsize D}} = \mbox{Nominal thickness of a tube}$ 

### **Kaiflex Duct System**

Packaging types



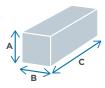
Sheet · endless Width: 1 m OD coil: 40 cm

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



Sheet · endless Width: 1.5 m OD coil: 60 cm

A: 1520 mm Ø: 600 mm Volumen: 0.430 m³



### **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.

### **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.





#### 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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