kaiflex® ST Class 0

Designed to prevent condensation and energy losses

Flexible closed cell rubber insulation, Kaiflex ST Class 0 reliably prevents condensation and reduces energy loss. By incorporating a water vapour barrier into the insulation cell structure Kaiflex ST Class 0 can effectively eliminate water vapour migration and retain outstanding performance over the entire system life.

By combining anti-microbial resistance into a Class 0 fire rated, closed cell, rubber that is completely dust and fibre free, Kaiflex ST Class 0 can be used in any kind of public, commercial or industrial building without impacting on health or the quality of air.

Available in tube, coils and sheets for use on air-conditioning, refrigeration, chilled water, heating and hot water pipes and air-distribution ductwork, Kaiflex ST Class 0 is versatile insulation with consistent and reliable technical values.

- Closed cell structure with in-built water vapour barrier
- Inherent moisture resistance with long lasting protection against corrosion
- Excellent thermal values minimise energy loss
- Flexible, dust and fibre free, nature allows for ease of installation
- In-built anti-microbial resistance

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Kaiflex ST Class 0 Technical Specification

Polymer		NBR blend	
Cell Structure		Closed Cell	
Colour		Black	
Upper Temperature Limit	pipe flat surface	+110°C +85°C	
Lower Temperature Limit		-200°C	see remark (1)
Thermal Conductivity	at -30°C at -20°C at -0°C at +10°C at +20°C at +40°C at +70°C	0.031 W/(m·K) 0.032 W/(m·K) 0.034 W/(m·K) 0.035 W/(m·K) 0.036 W/(m·K) 0.038 W/(m·K) 0.041 W/(m·K)	Test acc. to - EN ISO 8497 - EN ISO 12667
Water Vapour Barrier		In-built	
Water Vapour Resistance	Moisture Resistance Factor μ	≥ 10 000	Test acc. to - EN ISO 13469 - EN ISO 12086
Surface Spread of Flame		Class 1	Test acc. to BS 476 Part 7 1997
Fire Propagation	Total index of performance Sub index	less than 12 less than 6	Test acc. to BS 476 Part 6 1989
Fire Performance acc. to Building Regulations		**Class 0**	see remark (2)
EuroClass	tubes (≤ 25 mm) sheet / rolls (10 mm to 32 mm)	B_L-s3, d0 B-s3, d0	Test acc. to DIN EN 13501-1
Reaction to Fire		Self-extinguishing, does not drip	
Environmental Aspects		ODP zero GWP zero Cadmium free	
Health Aspects		Dust & Fibre free Formaldehyde free	
Resistance to ...	Mould	Excellent	
Other attributes	PH-value	neutral	
Other Certificates / Approvals		UL-approved (UL94) FM approved DNV, Lloyd's Register, See BG	Test in acc. with UL94
Outdoor applications		**Needs** protection against UV- radiation	see remark (3)

Remark (1) For temperatures between -50°C and -200°C please contact our Technical Support Team for advice.

Remark (2) Test results for surface spread of flame and fire propagation meets Class 0 fire performance as defined in UK building regulations

Remark (3) Kaiflex ST Class 0 needs protection against UV-radiation. Please paint with Kaiflex KaiFinish to the recommended thickness within 3 days.

Kaiflex ST Class 0 tolerances: thickness & length

Insulation thickness mm	6	9	10	13	19	25	≥ 32	Length all thicknesses	Width all thicknesses
Tubes	± 1.0 mm	± 1.5 mm	± 1.5 mm	± 1.5 mm	± 2.5 mm	± 2.5 mm	± 3.0 mm	± 1.5%	
Sheet	± 1.0 mm	-	± 1.5 mm	± 1.5 mm	± 1.5 mm	± 2.0	± 2.0	± 1.5%	± 2.0%
Rolls	± 1.0 mm	-	± 1.5 mm	± 1.5 mm	± 1.5 mm	± 2.0	± 2.0	+ 5.0% / - 1.5%	± 2.0%

Kaiflex ST Class 0 tubes

Colour: black; Length: 2 m

Copper Pipe Cu			Iron & Steel pipe Fe			6 mm Insulation Thickness			9 mm Insulation Thickness		
NB inch	Nom OD inch	Nom OD mm	NB inch	Nom OD mm	Min ID mm	Reference	m / carton		Reference	m / carton	
	1/4	6			7.0	**ST-06x006**	600		**ST-09x006**	360	
	3/8	10			11.0	**ST-06x010**	430		**ST-09x010**	320	
3/8	1/2	12			13.0	**ST-06x012**	350		**ST-09x012**	280	
1/2	5/8	15			16.0	**ST-06x015**	300		**ST-09x015**	240	
5/8	3/4				21.0	**ST-06x020**	250		**ST-09x020**	160	
3/4	7/8	22	1/2	21.3	23.0	**ST-06x022**	216		**ST-09x022**	156	
1	1 1/8	28	3/4	26.9	29.0	**ST-06x028 ◊**	150		**ST-09x028**	124	
1 1/4	1 3/8	35	1	33.7	36.0				**ST-09x035**	92	
1 1/2	1 5/8	42	1 1/4	42.4	43.5				**ST-09x042**	70	
			1 1/2	48.3	49.5				**ST-09x048**	60	
2	2 1/8	54			55.0				**ST-09x054**	60	
			2	60.3	61.5				**ST-09x060**	60	

Copper Pipe Cu			Iron & Steel pipe Fe			13 mm Insulation Thickness			19 mm Insulation Thickness		
NB inch	Nom OD inch	Nom OD mm	NB inch	Nom OD mm	Min ID mm	Reference	m / carton		Reference	m / carton	
	1/4	6			7.0	**ST-13x006**	240				
	3/8	10			11.0	**ST-13x010**	190		**ST-19x010**	106	
3/8	1/2	12			13.0	**ST-13x012**	172		**ST-19x012**	100	
1/2	5/8	15			16.0	**ST-13x015**	154		**ST-19x015**	86	
5/8	3/4				21.0	**ST-13x020**	120		**ST-19x020**	76	
3/4	7/8	22	1/2	21.3	23.0	**ST-13x022**	110		**ST-19x022**	74	
1	1 1/8	28	3/4	26.9	29.0	**ST-13x028**	86		**ST-19x028**	58	
1 1/4	1 3/8	35	1	33.7	36.0	**ST-13x035**	76		**ST-19x035**	48	
1 1/2	1 5/8	42	1 1/4	42.4	43.5	**ST-13x042**	56		**ST-19x042**	40	
			1 1/2	48.3	49.5	**ST-13x048**	48		**ST-19x048**	30	
2	2 1/8	54			55.0	**ST-13x054**	46		**ST-19x054**	30	
			2	60.3	61.5	**ST-13x060**	40		**ST-19x060**	28	
2 1/2	2 5/8	67			68.5	**ST-13x067**	40		**ST-19x067**	28	
2 13/16	3	76.1	2 1/2	76.1	77.0	**ST-13x076**	34		**ST-19x076**	28	
3	3 1/8	80			81.0	**ST-13x080 ◊**	30		**ST-19x080 ◊**	26	
			3	88.9	90.5	**ST-13x089 ◊**	30		**ST-19x089 ◊**	22	
3 1/2	3 2/3	93			94.5						
4	4 1/4	108			109.5	**ST-13x108 ◊**	28		**ST-19x108 ◊**	20	
			4	114.3	116.0	**ST-13x114 ◊**	28		**ST-19x114 ◊**	18	

- 9 mm tubes are available upon request for the pipe dimensions: 9x64; 9x70; 9x76; 9x80; 9x89; 9x102; 9x108; 9x114; 9x125; 9x133; 9x140; 9x160.
- 13 mm tubes are available upon request for the pipe dimensions: 13x125; 13x133; 13x140; 13x160.
- 19 mm tubes are available upon request for the pipe dimensions: 19x125; 19x133; 19x140; 19x160.
- All Kaiflex ST Class 0 tubes are available as slit items. Additional 5 p/m net after discount has been applied. For ordering slit items add -SLIT to the codes above. (example: ST-13x076-SLIT)
- Items marked with ◊ delivery quoted on request.

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Kaiflex ST Class 0 tubes

Colour: black; Length: 2 m

Copper Pipe Cu			Iron & Steel pipe Fe			25 mm Insulation Thickness			32 mm Insulation Thickness		
NB inch	Nom OD inch	Nom OD mm	NB inch	Nom OD mm	Min ID mm	Reference	m / carton		Reference	m / carton	
	1/4	6			7.0						
	3/8	10			11.0						
3/8	1/2	12			13.0	**ST-25x012**	60				
1/2	5/8	15			16.0	**ST-25x015**	60		**ST-32x015**	32	
5/8	3/4				21.0	**ST-25x020**	50				
3/4	7/8	22	1/2	21.3	23.0	**ST-25x022**	42		**ST-32x022**	32	
1	1 1/8	28	3/4	26.9	29.0	**ST-25x028**	40		**ST-32x028**	24	
1 1/4	1 3/8	35	1	33.7	36.0	**ST-25x035**	32		**ST-32x035**	24	
1 1/2	1 5/8	42	1 1/4	42.4	43.5	**ST-25x042**	24		**ST-32x042**	22	
			1 1/2	48.3	49.5	**ST-25x048**	24		**ST-32x048**	18	
2	2 1/8	54			55.0	**ST-25x054**	22		**ST-32x054**	18	
			2	60.3	61.5	**ST-25x060**	22		**ST-32x060**	16	
2 1/2	2 5/8	67			68.5						
2 13/16	3	76.1	2 1/2	76.1	77.0	**ST-25X076**	18		**ST-32x076**	12	
3	3 1/8	80			81.0						
			3	88.9	90.5	**ST-25x089** ◊	14		**ST-32x089**	10	
3 1/2	3 2/3	93			94.5						
4	4 1/4	108			109.5	**ST-25x108** ◊	10		**ST-32x108**	8	
			4	114.3	116.0	**ST-25x114** ◊	10		**ST-32x114**	8	

Kaiflex ST Class 0 tubes - DHCG compliant

Meets Building Regulation Part L (England & Wales) domestic compliance requirements; Colour: black; Length: 2 m

Copper Pipe Cu		Maximum permissable heat loss W/m	Insulation thickness mm			
Nom OD inch	Nom OD mm			Reference	m / carton	
	8	7.06	13	**ST-13x010**	190	
3/8	10	7.23	13	**ST-13x010**	190	
1/2	12	7.35	19	**ST-19x012**	100	
5/8	15	7.89	19	**ST-19x015**	86	
7/8	22	9.12	25	**ST-25x022**	42	
1 1/8	28	10.07	25	**ST-25x028**	40	
1 3/8	35	11.08	25	**ST-25x035**	32	
1 5/8	42	12.19	42	**ST-25x042**	24	
2 1/8	54	14.12	54	**ST-32x054**	18	

- 25 mm tubes are available upon request for the pipe dimensions: 25x140.
- 32 mm tubes are available upon request for the pipe dimensions: 32x133; 32x140; 32x160.
- All Kaiflex ST Class 0 tubes are available as slit items. Additional 5 p/m net after discount has been applied. For ordering slit items add -SLIT to the codes above. (example: ST-13x076-SLIT)
- Items marked with ◊ delivery quoted on request.

Kaiflex ST Class 0 continuous sheet

Colour: black; Width: 1m;

			Continuous Sheet			Continuous Sheet **with self-adhesive backing**		
Insulation Thickness mm	**Width m**	**Length m**	**Reference**	**m² / carton**		**Reference**	**m² / carton**	
3	1	30	**ST-03-E**	30		**ST-03-A-E**	30	
6	1	30	**ST-06-E**	30		**ST-06-A-E**	30	
10	1	20	**ST-10-E**	20		**ST-10-A-E**	20	
13	1	14	**ST-13-E**	14		**ST-13-A-E**	14	
19	1	10	**ST-19-E**	10		**ST-19-A-E**	10	
25	1	8	**ST-25-E**	8		**ST-25-A-E**	8	
32	1	6	**ST-32-E**	6		**ST-32-A-E**	6	

Kaiflex ST Class 0 flat sheet wide (2m x 1m)

Colour: black; Length: 2m; Width: 1m;

			Flat Sheet Wide			Flat Sheet Wide **with self-adhesive backing**		
Insulation Thickness mm	**Width m**	**Length m**	**Reference**	**m² / carton**		**Reference**	**m² / carton**	
6	0.5	2	**ST-06-1.0**	48		**ST-06-1.0-A**	48	
10	0.5	2	**ST-10-1.0**	32		**ST-10-1.0-A**	32	
13	0.5	2	**ST-13-1.0**	24		**ST-13-1.0-A**	24	
19	0.5	2	**ST-19-1.0**	16		**ST-19-1.0-A**	16	
25	0.5	2	**ST-25-1.0**	12		**ST-25-1.0-A**	12	
32	0.5	2	**ST-32-1.0**	10		**ST-32-1.0-A**	10	

Kaiflex ST Class 0 flat sheet (2m x 0.5m)

Colour: black; Length: 2m; Width: 0.5m;

			Flat Sheet 2m x 0.5m			Flat Sheet 2m x 0.5m **with self-adhesive backing**		
Insulation Thickness mm	**Width m**	**Length m**	**Reference**	**m² / carton**		**Reference**	**m² / carton**	
6	0.5	2	**ST-06-0.5**	24		**ST-06-0.5-A**	24	
10	0.5	2	**ST-10-0.5**	16		**ST-10-0.5-A**	16	
13	0.5	2	**ST-13-0.5**	12		**ST-13-0.5-A**	12	
19	0.5	2	**ST-19-0.5**	8		**ST-19-0.5-A**	8	
25	0.5	2	**ST-25-0.5**	6		**ST-25-0.5-A**	6	
32	0.5	2	**ST-32-0.5**	5		**ST-32-0.5-A**	5	

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Kaiflex ST Class 0 self-adhesive tape

Colour: black;					
Insulation Thickness mm	**Width mm**	**Length m**	**Reference**	**rolls / carton**	
3	50	15	**ST-TAPE**	12	

KAIMANN foam technology of tomorrow

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