



## *kaiflex*<sup>®</sup> **PROTECT F-BLACK**

Mechanical resistance with a black surface finish

Kaiflex Protect F-BLACK is a tough black woven glass fibre fabric covering for Kaiflex that protects insulation against mechanical damage and can be supplied either separately as rolls of thin sheet or pre-applied to Kaiflex tube or sheet Kaiflex Protect F-BLACK is attractive, unobtrusive, easy to clean and ideal for covering pipe and duct insulation publicly exposed to view. The covering is also UV resistant and waterproof making it suitable for outdoor use.

- Weather & UV resistant for outdoor use
- Durable protective covering
- Non-metallic covering free from corrosion



### Kaiflex Protect F-BLACK Technical Data

<b>Description</b>		Woven glass fibre cloth with a black finish	
<b>Colour</b>		Black	
<b>Upper temperature limit</b>		+80 °C	
<b>Lower temperature limit</b>		-30 °C	See remark (1)
<b>Euroclass <sup>°</sup></b>		E <sub>L</sub> /E	Test acc. to DIN EN 13501-1
<b>Weight</b>		245 g/m <sup>2</sup>	Test acc. to EN 22286
<b>Elongation</b>		5 %	Test acc. to EN ISO 13934
<b>Tensile Strength</b>	MD	3100 N/50 mm	Test acc. to EN ISO 13934 See remark 2)
	CD	2700 N/50 mm	
<b>Elongation at break</b>	MD	165 N	Test acc. to EN ISO 53363 See remark (2)
	CD	180 N	
<b>Resistance to</b>	UV	Very good	
	Mechanical impact	Very good	
<b>Shelf life</b>	Self-adhesive products	1 year	Store in a dry room at a typical relative humidity (between 50 % and 70 %) and room temperature (between 0 °C and +35 °C)
<b>Outdoor applications</b>		No additional protection against UV-radiation required	

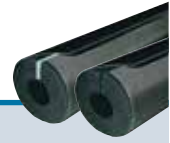
Remark (1) Bei Temperaturen unter -30 °C setzen Sie sich bitte mit unserem technischen Service in Verbindung.

Remark (2) MD: Machine Direction · CD: Cross Direction

<sup>°</sup> The Euroclass rating applies to metallic or solid mineral substrates.

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## Kaiflex Protect F-BLACK ST tube · F-BLACK pre-covered · self-adhesive

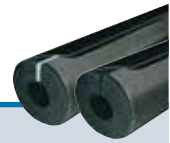
Colour: Black · Length: 1 m

Copper pipe Cu		Iron & steel pipe Fe			13 mm Insulation thickness			19 mm Insulation thickness		
OD mm	Nom width DN	Inch	OD mm	Nom width DN	Reference	Order No.	m/ carton	Reference	Order No.	m/ carton
15,0	10	1/4	13,5	8	FB-ST13x015	4007513 *	77	FB-ST19x015	4006671 *	43
18,0	15	3/8	17,2	10	FB-ST13x018	4007514 *	65	FB-ST19x018	4007529 *	39
22,0	20	1/2	21,3	15	FB-ST13x022	4006669 *	55	FB-ST19x022	4001834 *	37
28,0	25	3/4	26,9	20	FB-ST13x028	4001828 *	43	FB-ST19x028	4001835 *	29
35,0	32	1	33,7	25	FB-ST13x035	4001829 *	38	FB-ST19x035	4001836 *	24
42,0	40	1 1/4	42,4	32	FB-ST13x042	4007517 *	28	FB-ST19x042	4001837 *	20
			44,5		FB-ST13x045	4007518 *	26			
		1 1/2	48,3	40	FB-ST13x048	4001830 *	24	FB-ST19x048	4005767 *	15
54,0	50		54,0		FB-ST13x054	4006670 *	23	FB-ST19x054	4001838 *	15
57,0	50		57,0		FB-ST13x057	4007519 *	22			
		2	60,3	50	FB-ST13x060	4001831 *	20	FB-ST19x060	4006672 *	14
64,0			63,5		FB-ST13x064	4007520 *	20	FB-ST19x064	4007532 *	14
70,0			70,0		FB-ST13x070	4005766 *	20	FB-ST19x070	4007533 *	14
76,1	65	2 1/2	76,1	65	FB-ST13x076	4007521 *	17	FB-ST19x076	4007534 *	14
80,0					FB-ST13x080	4007522 *	15	FB-ST19x080	4007535 *	13
88,9	80	3	88,9	80	FB-ST13x089	4001832 *	15	FB-ST19x089	4007536 *	11
108,0	100		108,0		FB-ST13x108 <sup>◊</sup>	4007524 *	14	FB-ST19x108 <sup>◊</sup>	4007537 *	10
114,0	100	4	114,3	100	FB-ST13x114 <sup>◊</sup>	4007525 *	14	FB-ST19x114 <sup>◊</sup>	4007538 *	9
			125,0		FB-ST13x125 <sup>◊</sup>	4007526 *	10	FB-ST19x125 <sup>◊</sup>	4007539 *	9
		5	139,7	125	FB-ST13x140 <sup>◊</sup>	4001833 *	9	FB-ST19x140 <sup>◊</sup>	4007541 *	5
159,0	150		160,0		FB-ST13x160 <sup>◊</sup>	4007528 *	8	FB-ST19x160 <sup>◊</sup>	4007542 *	4

\* Delivery time on request.

◊ Slit (without self-adhesive seal)

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## Kaiflex Protect F-BLACK ST tube · F-BLACK pre-covered · self-adhesive

Colour: Black · Length: 1 m

Copper pipe Cu		Iron & steel pipe Fe			25 mm Insulation thickness					
m/ carton	Nom width DN	Inch	OD mm	Nom width DN	Reference	Order No.	m/ carton			
15,0	10	1/4	13,5	8						
18,0	15	3/8	17,2	10	<b>FB-ST25x018</b> °	4007543 *	25			
22,0	20	1/2	21,3	15	<b>FB-ST25x022</b> °	4007544 *	21			
28,0	25	3/4	26,9	20	<b>FB-ST25x028</b>	4001839 *	20			
35,0	32	1	33,7	25	<b>FB-ST25x035</b>	4007545 *	16			
42,0	40	1 1/4	42,4	32	<b>FB-ST25x042</b>	4005768 *	12			
			44,5							
		1 1/2	48,3	40	<b>FB-ST25x048</b>	4006674 *	12			
54,0	50		54,0		<b>FB-ST25x054</b>	4001840 *	11			
57,0	50		57,0							
		2	60,3	50	<b>FB-ST25x060</b>	4001841 *	11			
64,0			63,5		<b>FB-ST25x064</b>	4007546 *	9			
70,0			70,0		<b>FB-ST25x070</b>	4007547 *	9			
76,1	65	2 1/2	76,1	65	<b>FB-ST25x076</b>	4001842 *	9			
80,0										
88,9	80	3	88,9	80	<b>FB-ST25x089</b>	4001843 *	7			
108,0	100		108,0		<b>FB-ST25x108</b> °	4007548 *	5			
114,0	100	4	114,3	100	<b>FB-ST25x114</b> °	4007549 *	5			
			125,0							
		5	139,7	125	<b>FB-ST25x140</b> °	4007550 *	3			
159,0	150		160,0							

\* Delivery time on request.

° Slit (without self-adhesive seal)

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## Kaiflex Protect F-BLACK ST sheet · F-BLACK pre-covered · continuous






Colour: Black

Insulation thickness mm	Sheet · continuous 1 m width		
	Reference	Order No.	m <sup>2</sup> /carton
10	FB-ST10-RL	4001844	20
13	FB-ST13-RL	4001846	14
19	FB-ST19-RL	4001848	10
25	FB-ST25-RL	4001850	8
32	FB-ST32-RL	4001852	6

For insulation of ductwork and vessels - may be used for pipe work with a diameter > 323 mm

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## Kaiflex Protect F-BLACK Accessories

	Description	Order No.	Colour	pcs/ carton
	Sealing compound · content: 290 ml *	4004680	trans- parent	12
		4004679	black	12
	Description	Order No.	Width mm	m/ roll
	Coating	4003843	1.000	25
	Description	Order No.	Width mm	rolls/ carton
	Protect BLACK Butyl Tape · 25 m Length	4004685	50	2
		4004686	100	1

\* 1 cartridge seals about 8 m.

In case of creasing Protect sealing compound is to be used. Apply in min. width of 10 mm and min. thickness of 3 mm (refer to Kaiflex Application Manual).



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