

EDITION 2020

GENERAL CATALOGUE

www.kflex.com



K-FLEX® TITAN – THE NEW OUT-OF-THE-BOX PIPE INSULATION FOR EXTREME APPLICATIONS.

NEW!

SUPREME FLEXIBILITY

The newly developed copolymer coating provides an unprecedentedly flexible all-in-one product, that even can be blown over on pipes easily.

HIGH MECHANICAL STRENGTH

K-FLEX[®] TITAN is resistant to tearing and mechanical stress. Above that it is UV and weather-resistant. The finish also makes it impermeable to water vapor.

EXCELLENT INSULATION VALUES

K-FLEX[®] TITAN combines the well-known benefits of K-FLEX[®] elastomeric insulating products with excellent mechanical properties and controls an above-average wide temperature range.

K-FLEX[®] TITAN represents a groundbreaking advance in the protection of plants.

K-FLEX® TITAN movie







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K-FLEX[®] ► COMPANY PROFILE

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All information is correct at the time of publication and subject to our terms and conditions. This price list supersedes all previous editions. Errors & omissions excepted.



THE COMPANY

K-FLEX[®] is an Italian manufacturing company specialised in the production of thermal and acoustic flexible elastomeric insulation materials.

K-FLEX[®] has production facilities and subsidiary networks around the globe in order to supply their products to a worldwide customer base. Its diversified products range provides solutions for various market sectors, including building, transportation, petrochemical and renewable energy.

K-FLEX[®] is a worldwide market leader thanks to its focus on technological innovation and the quality of its products that play an essential role in energy consumption control and reduction of the greenhouse gas emission. K-FLEX[®] is an example of a successful Italian company that has established itself worldwide. The company is present in 63 countries, with production facilities in all continents and more than 2500 employees. In addition, the company has commercial distribution branches, located all over the world, for the efficient and effective global distribution process of its products.

The original manufacturing plant, located in Roncello (north of Milan), was founded in 1989 and today it is the largest in the world for the production of elastomeric insulation. UNI EN ISO 9001:2015 and ISO 14001 certified, the company offers a wide range of products that ensure quality, reliability and compliance with market standards.

K-FLEX[®] products also play a very important role in conserving the environment by improving the relationship between energy consumption and pollutant emissions, controlling energy consumption and reducing the release of greenhouse gas in the atmosphere.



THIRTY YEARS OF HISTORY: SYNONYMOUS WITH QUALITY, PROFESSIONALISM AND PASSION

THE STORY

K-FLEX[®] was founded in 1989 in Roncello, located north of Milan, Italy, with the first production plant of elastomeric materials for thermal insulation.

K-FLEX[®] quickly developed its presence in the market and grew rapidly. In 1993, K-FLEX[®] had already established a significant market share in Italy.

It subsequently expanded into other European markets such as France and Spain, opening in Barcelona in 1995 and in Madrid in 1998.

Almost ten years after its foundation, K-FLEX[®] began its expansion outside Europe starting up K-FLEX[®] China. Based in Guangzhou was the first of two manufacturing plants with a second plant built in Suzhou, which opened in 2009.

The Company built further production facilities in the US, in Russia in 2005, in Malaysia, Poland, India and Dubai.

In order to expand its commercial footprint, the Company opened distribution branches and various other distribution / sales companies in Germany (2000), Scandinavia (2005), United Kingdom (2006), Romania (2008), Japan (2008), Ukraine (2009), South Korea (2009).

In the 2008 another strategic activity was the 100% share acquisition of BevEx Ltd. BevEx offers an important diversification opportunity for K-FLEX[®] through its presence in the Food & Beverage sector.

At the end of 2009, K-FLEX[®] opened its headquarter in Roncello, housing a 50,000 sq. meter production facility.

In the last few years K-FLEX[®] has been expanding the production facilities in Russia, Poland, India and USA in order to better answer to the local market request.

In June 2014, the company changed its legal form from limited liability company (S.r.l.) to joint stock company (S.p.A.).

In 2017, the plant in the USA was extended towards the biggest and most modern plant worldwide.

Also the Polish plant was extended in 2017 and represents the biggest and most modern plant in Europe.

In 2018, a new production site in Egypt was opened.

In 2018, the new K-FLEX[®] logistics centre "K-FLEX[®] Logistikzentrum Leipzig-Halle" in Germany was opened. It is now the biggest distribution centre for elastomeric foams in whole Europe.

In 2019, a new production site in Vietnam has been opened in support of the asian region market request. In the same year K-FLEX[®] implemented his Polish factory with a new polyethylene production plant.

In 2020, a new production site in Mexico will be opened to support the growing of South American market.



IN THE WORLD

K-FLEX[®] distributes products to over 63 countries. As part of its business strategy, K-FLEX[®] will continue to seek to expand its sales and market share in various international markets, particularly in emerging regions.

K-FLEX[®]'s international production network is in response to a rapidly expanding insulation market. Unlike other markets, K-FLEX[®] does not globalize as a strategy to decrease labour costs, but instead, is expanding in order to more efficiently reach local markets. Thermal insulation materials are high volume products and shipping costs have a strong impact on pricing. Maintaining a close vicinity to the local market and reducing transportation costs are, therefore, important strategic factors in this industry. A close proximity to customers provides K-FLEX[®] with the flexibility to adapt in this global market that is constantly evolving.

One of the strengths of K-FLEX[®] is the ability to effectively answer the specific needs of its customers through a particularly flexible production structure, that enables inventory updates based on their sales forecasts. This flexibility allows for a better level of service to the customer.

Further Expansion

K-FLEX[®] is focused on continuing to utilize its internationa presence in order to strengthen penetration in the high growth emerging markets. K-FLEX[®] is particularly focused on pursuing attractive growth opportunities in Asia Pacific, the Middle East, Eastern Europe and North America. The aim of K-FLEX[®] is to continue expanding its market share in key end markets by further developing its product offer for these markets and by growing relationships with existing and new customers globally.





LOCAL CENTRES FOR WORLDWIDE DISTRIBUTION



- Production Site
- Sales Office
- Distribution Company

K-FLEX[®] ► COMPANY PROFILE

MISSION

To be the **market leader** in the production of **insulation materials** and to effectively answer the specific needs of its customers and markets, while providing **advanced technological solutions** and **innovative insulation systems**.

BUSINESS AREA

K-FLEX[®] is a reference point for excellence in the insulation market through the quality of its processes and products and the continuous search for innovative solutions.

K-FLEX® offers a wide range of products to meet the needs of the following areee market:



Oil and Petrochemical (Oil & Gas), Rail and Ship Building, Pharmaceutical and other industrial processes.

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LOGISTIC AND DISTRIBUTION

The high flexibility of our production structure allows us to up-date our stock rotation based on sales forecasts. Being able to give comprehensive answers to any request is one of K-FLEX®'s strong points.

The production capacity of the new plant is 120 million meters of insulation pipes per year (equivalent to 3 times around the Earth) and 10 million square meters of sheet insulation.

The K-FLEX[®] automated warehouse enables high performance in terms of speed, handling some 4,000 different products with a fast turnover.

Our warehouse has a dedicated goods despatch area, especially designed with ergonomics and organisation in mind. This area has been constructed on different levels with lifts to facilitate easy pallet handling.

Through these actions the shipping area is able to prepare and load a quantity of materials equal to 60 complete trucks per day and more than 18000 complete trucks per year.

THERMAL INSULATION

THE PROMETERS







K-FLEX® THERMAL INSULATION

The K-FLEX® range of thermal insulation products offers everything necessary to meet the technical insulation demands of both civil and industrial installations, to reduce energy consumption and prevent condensation and corrosion under insulation.

K-FLEX[®] products cover a range of temperature for applications including cryogenic plants to chilled water systems, and from domestic hot water systems to solar thermal plants. Their high resistance to water vapour diffusion is a key feature of all K-FLEX[®] closed cell elastomeric insulation materials.

Typical applications include:

refrigeration and air-conditioning systems; plumbing, industrial, chemical and pharmaceutical plant engineering; insulation of pipes, fittings and other equipment; insulation of tanks, solar systems and all OEM applications requiring thermal insulation.

The product range for the civil sector already complies with the current European testing for fire resistance of building elements.

For more specific areas such as marine, rail, oil &gas, K-FLEX[®] products already have the most important and relevant international approvals and certification in their field. The final choice of a suitable coating completes the insulation system.

The different finishes (cladding) available for K-FLEX[®] systems conform to industry standards and offer UV protection, mechanical and chemical protection and an aesthetic finish.

PRODUCT AND APPLICATIONS

		(LES)	*	-;o;)))	(JZ)	Ā			HALOGEN FREE	
	Heating	Air Conditioning / Ventilation	Refrigeration	Solar	Industrial	Oil & Gas	Ship building	Train	Halogen Free	UV Resistant
K-FLEX® ST	•	•	•		•	•	•	•		
K-FLEX® ST DUCT	•	•	•							
K-FLEX® ST FRIGO		•	•							
K-FLEX® EC	•	•								
K-FLEX [®] ECO	•	•	•		•	•	•	•	•	
K-FLEX® SOLAR HT	•			•	•	•			•	•
K-FLEX [®] SRC/SRC ECO	•	•	•						•	
K-FLEX® AL CLAD SYSTEM	•	•	•		•					•
K-FLEX® COLOR SYSTEM	•	•	•							•
K-FLEX® IN CLAD SYSTEM					•	•		•		
K-FLEX® IC CLAD SYSTEM					•	•	•	•		

K-FLEX [®] ▶ SYSTEMS SELECTOR	
- Special requirements -	- K-FLEX® solutions -
UV / weather protection	K-FLEX® AL CLAD SYSTEM K-FLEX® IN CLAD SYSTEM K-FLEX® COLOR SYSTEM
Colour coding	K-FLEX [®] COLOR SYSTEM
Aesthetic design	K-FLEX [®] COLOR SYSTEM K-FLEX [®] AL CLAD SYSTEM
Easy to clean	All K-FLEX® SYSTEM
High resistance to chemical attack	K-FLEX [®] IN CLAD SYSTEM
Shock resistance (mechanical)	K-FLEX [®] AL CLAD SYSTEM K-FLEX [®] IN CLAD SYSTEM K-FLEX [®] IC CLAD SYSTEM
Resistance to water vapour diffusion	K-FLEX [®] AL CLAD SYSTEM K-FLEX [®] IN CLAD SYSTEM
Quick and easy assembly	AII K-FLEX® SYSTEM



PRODUCTS AND APPLICATION GUIDE LINES



For applications below -40 °C please contact our technical department.

Test certificates, approvals and supervision for different work stations (shipbuilding, rail, chemical, pharmaceutical, oil & gas, etc ...) are available in the download section of our website: www.kflex.com

K-FLEX® > APPLICATION TEMPERATURE RANGE						
- Product -	➡ Min °C ➡	➡ Max °C ➡				
K-FLEX [®] ST	- 200	+ 110				
K-FLEX® ST DUCT	- 40	+ 85				
K-FLEX [®] ST FRIGO	- 40	+ 110				
K-FLEX® EC	- 40	+ 110				
K-FLEX [®] ECO	- 200	+ 120				
K-FLEX [®] SOLAR HT	- 40	+ 150				
K-FLEX [®] SRC/SRC ECO	- 40	+ 85				
K-FLEX® AL CLAD SYSTEM	- 40	+ 110				
K-FLEX [®] COLOR SYSTEM	- 40	+ 110				
K-FLEX [®] IN CLAD SYSTEM	- 200	+ 120				
K-FLEX® IC CLAD SYSTEM	- 40	+ 110				

K-FLEX[®] ► THERMAL INSULATION

PACKAGING

CARTONS		PRODUCTS	CARTON DIMENSIONS (CM)		CARTONS/ PALLET DIMENSIONS (CM)			PALLET/ TRUCK	PALLET**		
CARTONS	PRODUCTS	LENGTH	WIDTH	HEIGHT	QUANTITY*	LENGTH	WIDTH	HEIGHT	QUANTITY	PALLEI	
L HAD	- AL	Sheets 1m: K-FLEX® ST K-FLEX® SOLAR HT K-FLEX® SOLAR HT K-FLEX® SRC ECO K-FLEX® AL CLAD K-FLEX® LOLOR K-FLEX® IC CLAD K-FLEX® IN CLAD	105	55	55	16	210	120	235	12	
		Sheets 2x0,5m	215,5	55	16,5	20	210	120	180		
EN P	東京	Sheets 1,5m in sack: K-FLEX® ST K-FLEX® ST DUCT				20	210	120	265***		
	*** maximum heig NB: transport volu	er per pallet tration purposes only, the ht = 265 cm Depending mes are calculated for ful nsport volumes valid for t	on the thickness of I loads. This may	of the insulation s	sheet packing car	n vary in size, which m		-			



PACKAGING

			CARTON DIMENSIONS (CM)		CARTONS/ PALLET	PALLET DIMENSIONS (CM)		PALLET/ TRUCK			
	CARTONS	PRODUCTS	LENGTH	WIDTH	HEIGHT	QUANTITY*	LENGTH	WIDTH	HEIGHT	QUANTITY	PALLET**
Units		Tubes 2m: K-FLEX® ST - ST/SK K-FLEX® ST PLUS K-FLEX® ECO	210	39	32	21	210	120	239		
	mana a	K-FLEX [®] SOLAR HT K-FLEX [®] SOLAR HT+UV	210	39	32	18	210	120	207	12	
		K-FLEX [®] COLOR	210	39	32	15					~~~~
		Tubes 1m: K-FLEX® IC CLAD K-FLEX® IN CLAD K-FLEX® SRC ECO K-FLEX® AL CLAD K-FLEX® COLOR K-FLEX® SOLAR HT+UV	108	39	39	30 36	210	120	245	12	
		Tube in rolls: K-FLEX® SOLAR HT	59	59	40	36 16 30 12	210 120 210 120	120 80 120 80	255 251 215 192	12	
11	Henry	Tube in rolls: K-FLEX® EC-H ROLLS	52	59	26	62	210	120	250	12	
	F	Tube in rolls (industrial carton): K-FLEX® ST FRIGO	80	80	40	18	210	120	255	12	
A L	The state	Tube in rolls: K-FLEX® ST FRIGO	51,5	50	21	88 32 72 36	210 120 210 120	120 80 120 80	246 246 204 220	12	

* Maximum number per pallet ** Images for illustration purposes only, the amount of cartons/pallet may differ from that shown. *** maximum height = 265 cm Depending on the thickness of the insulation sheet packing can vary in size, which may affect the overall height.

NEW! Starting from January 2020, our packaging will be graphical updated

K-FLEX® ST









K-FLEX[®] ST

- Elastomeric insulation for all civil and industrial applications
- High performance for all applications in a temperature range from -165 °C to +110 °C
- Prevents the risk of condensation and improves energy saving
- Class of reaction to fire euroclass B₁-s2, d0
- Very fine closed cellular structure and high technical performance
- Resistant to mould, fungi and bacteria
- Light and flexible



K-FLEX® ▶ ST

TECHNICAL DATA



K-FLEX[®] ST TUBES > TECHNICAL DATA

 Property 	- Va	Test method	
Temperature range	K-FLEX® ST Tubes: from -165 °C* to +110 K-FLEX® ST/SK: from -40 °C to +85 °C	3° C	EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	Thicknesses ≤ 25 mm $-20 \ ^{\circ}C = 0,031$ $0 \ ^{\circ}C = 0,033$ $+20 \ ^{\circ}C = 0,035$ $+40 \ ^{\circ}C = 0,037$	Thicknesses > 25mm $-20 \ ^{\circ}C = 0.034$ $0 \ ^{\circ}C = 0.036$ $+20 \ ^{\circ}C = 0.038$ $+40 \ ^{\circ}C = 0.040$	EN 13787 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Permeability µ	≥ 10000	≥ 7000	EN 12086
Fire rating	K-FLEX® ST Tubes: Euroclass B _L -s2, d0 K-FLEX® ST/SK: Euroclass B _L -s2, d0 CLASS 0		EN 13501-1 EN 13501-1 BS 476 Part 6/7
Ecological data	Without CFCs and HCFCs		

* For industrial applications, product can be applied down to -198°C; for applications below -40°C please contact our technical department.

 $\ensuremath{\textbf{K-FLEX}}\xspace^{\ensuremath{\textbf{S}}\xspace}$ reserves the right to change data and technical requirements without notice.



K-FLEX® ST SHEETS > TECHNICAL DATA

- Property -	- Va	alue 🔻	👻 Test method 👻
Temperature range	K-FLEX [®] ST Sheets: from -165 °C* to +85	5 °C	EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	Thicknesses $\leq 25mm$ Thicknesses $> 25mm$ $-20 \ ^{\circ}C = 0,031$ $-20 \ ^{\circ}C = 0,034$ $0 \ ^{\circ}C = 0,033$ $0 \ ^{\circ}C = 0,036$ $+20 \ ^{\circ}C = 0,035$ $+20 \ ^{\circ}C = 0,038$ $+40 \ ^{\circ}C = 0,037$ $+40 \ ^{\circ}C = 0,040$		EN 13787 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Permeability µ	≥ 10000	≥ 7000	EN 12086
Fire rating	K-FLEX® ST Sheets: Euroclass B-s3, d0 CLASS 0		EN 13501-1 BS 476 Part 6/7
Ecological data	Without CFCs and HCFCs		

* For industrial applications, product can be applied down to -198°C; for applications below -40°C please contact our technical department.

 $\ensuremath{\textbf{K-FLEX}}\xspace^\circ$ reserves the right to change data and technical requirements without notice.



GENERAL INFORMATION



K-FLEX® ST TUBES

K-FLEX® ST products meet all the requirements demanded by civil and industrial refrigeration, air conditioning, plumbing, insulation of tanks, fittings, water pipes and all other applications that need thermal insulation.



K-FLEX[®] ST/SK TUBES K-FLEX[®] ST/SK TUBES with overlap

K-FLEX® ST/SK is a cut-to-length self-seal elastomeric insulation. This innovative technology includes adhesive tapes which are quick and easy to use for the installer. This new system has been developed to save on installation time and reduce the use of other adhesives to improve working conditions at the construction site. Also available as version with overlap - **K-FLEX® ST/SK** with overlap. **K-FLEX® ST SHEETS** are ideal for sheet metal ducts and large size pipes. The height of 1000/1500 mm minimises segmentation of the coating and simplifies installation, greatly reducing time and

Available in standard and adhesive.

labour cost.

K-FLEX® ST > RANGE				
	✓ Length ✓	Thicknesses		
K-FLEX® ST - Tubes	2 m	6-9-13-19-25-32-40-50-60 mm		from 6 to 210 mm
K-FLEX® ST/SK - Adhesive tubes	2 m	9-13-19-25-32 mm		from 12 to 114 mm
	 Thicknesses 			🕶 Height 🛥
K-FLEX [®] ST - Sheets	3-6-10-13-16-19-25-32-40-50	50-60 mm		1000/1500 mm
K-FLEX [®] ST - Adhesive sheets	3-6-10-13-16-19-25-32-40-	50 mm		1000/1500 mm



PROJECTS

Germany





K-FLEX® SRC-SRC ECO

K-FLEX® SRC ECO B_l-s1,d0

Halogen Free









K-FLEX[®] SRC - SRC ECO

- Products with reaction to fire euroclass B_L-s1, d0 / B-s2, d0
- Low smoke emission in case of fire
- Excellent thermal conductivity
- > High resistance to water vapour diffusion
- Application temperatures from -40 °C to +85 °C



TECHNICAL DATA



K-FLEX[®] SRC ECO > TECHNICAL DATA

- Property -	▼ Value ▼	👻 Test met	hod 🖵
Temperature range	From -40 °C* to +85 °C	EN 14706	
Thermal conductivity λ W/(m•K)	-20 °C = 0,036 0 °C = 0,038 +20 °C = 0,040 +40 °C = 0,042	EN 13787 EN 12667	
Corrosion prevention	pH neutral (7±0,5)	EN 13468	
Water permeability	WS < 0.1%	EN 13472	
Permeability µ	≥ 3000	EN 12086	
Fire rating	Tube: B _L -s1,d0 Sheet: B-s2,d0 Tape: B-s1,d0	EN 13501-1	
Leacheable chloride	< 500 ppm	EN 13468	
Ecological data	Without halogens, PVC, CFCs, HCFCs and Formaldehyde		
* For applications below -40 °C please cor	itact our Technical Department		

K-FLEX® reserves the right to change data and technical requirements without notice.



K-FLEX[®] SRC > TECHNICAL DATA

- Property -	⊸ Va		
Temperature range	From -40 °C* to +85 °C		EN 14706
Thermal conductivity λ W/(m•K)	-20 °C = 0,031 0 °C = 0,033 +20 °C = 0,035 +40 °C = 0,037		EN 13787 EN 12667
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Water permeability	WS < 0.1%		EN 13472
Permeability µ	≥ 10000		EN 12086
Fire rating	B-s2,d0		EN 13501-1
Leacheable chloride	< 500 ppm		EN 13468
Ecological data	Without CFCs and HCFCs		

 * For applications below -40 $^{\circ}\text{C}$ please contact our Technical Department

 $\ensuremath{\textbf{K-FLEX}}\xspace^\circ$ reserves the right to change data and technical requirements without notice.



GENERAL INFORMATION

Insulation sheets with reduced smoke emission.

DESCRIPTION

K-FLEX® SRC's innovative design combines the high thermal performance of a rubber based flexible elastomeric foam with a reduced smoke emission coating.

APPLICATIONS

K-FLEX® SRC sheet is ideal for thermal insulation of pipes, ducting and technical systems in public buildings.

CLASSIFICATION

K-FLEX® SRC sheet has been tested according to the current European Standard EN 13501-1 for fire classification of construction products, and is classified B-s2, d0.

The main advantages of K-FLEX® SRC are:

- Retarded ignition of the flame
- Reduced flame propagation.
- Low thermal conductivity.
- High resistance to water vapour diffusion.
- Wide range of operating temperatures.
- Consistent performance.
- Higher mechanical properties with respect to uncoated elastomeric insulation.
- Quick and easy installation.

HALOGEN FREE Insulation with reduced smoke emission.

DESCRIPTION

K-FLEX® SRC ECO is an insulating product comprising a layer of closed cell elastomeric foam and a protective jacket. The special **K-FLEX® SRC ECO** configuration offers a unique product which, in case of fire, retards the emission of smoke and fumes which are also free of hydrohalic acids and organochlorine compounds.

APPLICATIONS

K-FLEX® SRC ECO is ideal for thermal and acoustic insulation of walls and technical installations where low smoke emission is required in case of fire.

CLASSIFICATION

K-FLEX® SRC ECO has been tested according to the current European standard EN 13501-1, for fire classification of construction products, and is classified B₁-s1, d0/ B-s2, d0.

The main advantages of K-FLEX® SRC ECO are:

- No halogen in the composition or expansion of the elastomeric material.
- No smoke containing hydrohalic acids and organochlorine compounds in case of fire.
- Retarded ignition of the flame.
- Retarded flame propagation.
- Reduced emission of smoke.
- Higher mechanical properties with respect to an uncoated elastomeric insulation foam.
- Quick and easy installation.

K-FLEX[®] SRC/SRC ECO > RANGE

	- Thicknesses -		→ Height →	
K-FLEX [®] SRC - Sheets	6-9-13-19 mm		1000 mm	
K-FLEX [®] SRC - Adhesive sheets	6-9-13-19 mm		1000/1500 mm	
	- Length -	- Thick	nesses 💌	➡ Diameters ➡
K-FLEX® SRC ECO - Tubes	1 m	9-13-19	-25 mm	from 15 to 160 mm
	- Thicknesses -			🕶 Height 💌
K-FLEX [®] SRC ECO - Sheets	6-9-13-19-25 mm		1000 mm	
K-FLEX® SRC ECO - Adhesive sheets	6-9-13-19-25 mm	1000 mm		

K-FLEX® ST DUCT









K-FLEX® ST DUCT

- Elastomeric insulation sheets for air ducting
- Specially designed for isolation of ventilation ducts
- > 1.5m width reduces installation times
- Adhesive coating



K-FLEX® > ST DUCT

TECHNICAL DATA



K-FLEX[®] ST DUCT → TECHNICAL DATA

- Property -	👻 Value 👻		
Temperature range	From -40 °C to +85 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	Thicknesses ≤ 25 mm -20 °C = 0,031 0 °C = 0,033 +20 °C = 0,035 +40 °C = 0,037	Thicknesses > 25mm -20 °C = 0,034 0 °C = 0,036 +20 °C = 0,038 +40 °C = 0,040	EN 13787 EN 12667
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Permeability µ	≥ 7000		EN 12086
Fire rating	Euroclass B-s3, d0		EN 13501-1
Ecological data	Without CFCs and HCFCs		
		K-FLEX® reserves the right to change d	lata and technical requirements without notice.

PRODUCT FEATURES





GENERAL INFORMATION





K-FLEX® ST DUCT

K-FLEX® ST DUCT is specifically produced for the insulation of ventilation and air-conditioning ducts, meeting all the necessary requirements in terms of structure and dimensions. Economical: flexible and easy to handle, it is made in measurements of 1500 mm in width to ensure easy installation on ducts.

Pratical: the self-adhesive surface has been made rougher to improve its grip on the metal ducts.

Convenient: its 1500 mm width cuts down on application time, reducing the final cost of pre-fabricated ducts.

Flexible: high elasticity helps attenuate vibrations that occur where there are joints and suspensions.

K-FLEX® ST DUCT + FINISHES

K-FLEX® ST DUCT ALU

Elastomeric self-adhesive sheet with reinforced mesh and a smooth aluminium 80 μ thick covering. Width: 1500 mm. Euroclass C-s3,d0

K-FLEX® ST DUCT AL CLAD SYSTEM Elastomeric selfadhesive sheet, with reinforced mesh and AL CLAD covering. Width: 1500 mm. Euroclass D-s3,d0

K-FLEX® ST DUCT COLOR SYSTEM Elastomeric selfadhesive sheet, with reinforced mesh and COLOR coating. Width: 1500 mm. Euroclass C-s3,d0

K-FLEX® ST DUCT > RANGE					
	- Thicknesses -	- Height -			
K-FLEX [®] ST DUCT - Sheets	6-8-10-12-15-20-30 mm	1500 mm			



PROJECTS

Italy, Rimini Mall "Le Befane"





K-FLEX® ST FRIGO



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ailes







K-FLEX® ST FRIGO

- Elastomeric insulation for specialists in cold temperatures
- Practical packaging
- Easy to apply
- High performance
- Suitable for OEM applications



K-FLEX® ► ST FRIGO

TECHNICAL DATA



K-FLEX[®] ST FRIGO ▶ TECHNICAL DATA

- Property -		🕶 Value 🛥	✓ Test method ✓
Temperature range	From -40 °C to +110 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	-20 °C = 0,031 0 °C = 0,033 +20 °C = 0,035 +40 °C = 0,037		EN 13787 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Permeability µ	≥ 10000		EN 12086
Fire rating	Euroclass B_L -s3, d0		EN 13501-1
Ecological data	Without CFCs and HCFCs		
		K-FLEX® reserves the right to change data	and technical requirements without notice.

THE FUNCTIONAL AND USEFUL COOLING SOLUTION



K-FLEX[®] ST FRIGO elastomeric insulation



GENERAL INFORMATION



The revolutionary and exclusive packaging offers practical and economic benefits for both usage and distribution.

User-friendly: An aperture in the box lid allows easy removal of the insulation whilst keeping the remaining product intact and in place.

Precision cutting: The ruler printed on the edge of the box facilitates accurate measurement and precise cutting of the insulation required for the job. No more waste product; less use of glue and tape.

Easy to trasport: On request we can also supply K-FLEX® ST FRIGO in industrial sized cartons: 800 x 800 x 400 mm

K-FLEX® ST FRIGO > RANGE				
		- Thick	- Diameters -	
K-FLEX [®] ST FRIGO Carton 500x500x2	FLEX® ST FRIGO 6-9-13 mm		from 6 to 28 mm	
K-FLEX [®] ST FRIGO Carton 800x800x4		6-9 mm		from 6 to 28 mm
➡ K-FLEX [®] ST FRIG0 ➡		→ 6 mm →	🕶 9 mm 👻	🕶 13 mm 👻
Ø tube Inches	Ø tube mm	m/Carton	m/Carton	m/Carton
1/4"	6	50	40	26
5/16"	8	48	37	26
3/8"	10	46	34	23
1/2"	12	40	31	18
5/8"	15	38	27	17
3/4"	18	30	23	15
7/8"	22	23	19	14
1 1/8"	28	20	14	10

K-FLEX® EC









K-FLEX[®] EC

- Ideal for heating and plumbing systems
- Flexible and easy to work with



K-FLEX® ► EC

TECHNICAL DATA



K-FLEX® EC > TECHNICAL DATA

 Property 	– Value –		Test method
Temperature range	K-FLEX [®] EC: from -40 to +110 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	Thicknesses ≤ 25mm -20 °C = 0,031 0 °C = 0,033 +20 °C = 0,035 +40 °C = 0,037	Thicknesses > 25mm -20 °C = 0,034 0 °C = 0,036 +20 °C = 0,038 +40 °C = 0,040	EN 13787 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Permeability µ	≥ 7000		EN 12086
Fire rating	Euroclass B _L -s3, d0 Class 1		EN 13501-1 BS 476 Part 6/7
Ecological data	Without CFCs and HCFCs		

 $\textbf{K-FLEX}^{\texttt{o}}$ reserves the right to change data and technical requirements without notice.

GENERAL INFORMATION



K-FLEX® EC TUBES

K-FLEX® EC offers all the requirements to meet the demands of civil and industrial installations that require the use of insulation material.



Ease of use

An aperture in the box lid allows easy removal of the insulation whilst keeing the remaining product in place.

Precision cutting

The ruler printed on the edge of the box facilitates accurate measurement and precise cutting of the insulation required for the job. No more waste product; less use of glue and tape.

Better protection for the insulation in the work place No more wasted material caused by breakage or damage during transport.


K-FLEX® EC > RANGE			
	- Length -	- Thicknesses -	➡ Diameters ➡
K-FLEX [®] EC - Tubes	2 m	6-9-13-19-25-40-50-60 mm	from 10 to 168 mm
K-FLEX [®] EC/H Rolls		6-9-13 mm	from 6 to 35 mm
▼ K-FLEX [®] EC/H Rolls ▼	→ 6 mm →	🕶 9 mm 👻	👻 13 mm 👻
Ø tube mm	m/Carton	m/Carton	m/Carton
6	90	60	
8	80	56	
10	70	51	35
12	60	50	30
15	57	41	26
18	45	35	25
20	45	35	23
22	35	29	21
25	32	25	20
28	30	21	15
35			12





PROJECTS

PGE Arena, Polen



K-FLEX® ECO











K-FLEX[®] ECO

- Elastomeric insulation formulated and manufactured without the use of halogens
- Designed for areas with special safety requirements
- > Approved for use in rail and marine industries
- Also available in green color.
 Request to our sales office the specific price list for the green version



TECHNICAL DATA



K-FLEX[®] ECO TUBES ▶ TECHNICAL DATA

- Property -	- Value -	➡ Test method ➡
Temperature range	From -165 °C* to +120 °C	EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	$\begin{array}{l} -20 \ ^{\circ}\text{C} = 0,036 \\ 0 \ ^{\circ}\text{C} = 0,038 \\ +20 \ ^{\circ}\text{C} = 0,040 \\ +40 \ ^{\circ}\text{C} = 0,042 \end{array}$	EN 13787 EN 12667 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)	EN 13468
Permeability µ	≥ 3000	EN 12086
Fire rating	K-FLEX® ECO Tubes: Euroclass DL-s2, d0 Class 1	EN 13501-1 BS 476 Part 6/7
Ecological data	Halogen free - PVC - CFC - HCFC Free	
Marine approvals	LR - DNV - M.M. ITALIANA CE-MARINE (Bureau Veritas) - US NAVY	
Fume classification (toxicity)	IMO RES 61(67)	
Fume density (NBS room)	≤ Dm 200	
Color	Green, Black	
* For temperatures of less than -50 °C,	please consult our technical office.	

* For temperatures of less than -50 °C, please consult our technical office.

K-FLEX® reserves the right to change data and technical requirements without notice.



K-FLEX[®] ECO SHEETS > TECHNICAL DATA

- Property -	- Value -	✓ Test method ✓
Temperature range	From -165 °C* to +120 °C	EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	-20 °C = 0,036 0 °C = 0,038 +20 °C = 0,040 +40 °C = 0,042	EN 13787 EN 12667 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)	EN 13468
Permeability µ	≥ 3000	EN 12086
Fire rating	K-FLEX [®] ECO Sheets: Euroclass E Class 1	EN 13501-1 BS 476 Part 6/7
Ecological data	Halogen free - PVC - CFC - HCFC Free	
Marine approvals	LR - DNV - M.M. ITALIANA CE-MARINE (Bureau Veritas) - US NAVY	
Fume classification (toxicity)	IMO RES 61(67)	
Fume density (NBS room)	≤ Dm 200	
Color	Green, Black	

 * For temperatures of less than -50 °C, please consult our technical office.

K-FLEX® reserves the right to change data and technical requirements without notice.



GENERAL INFORMATION

Manufacturing without thought for the resultant environmental impact is no longer acceptable. This attitude of awareness, now largely rooted in all areas of modern society, has triggered a significant innovation in models of development and consumerism.

K-FLEX® ECO, formulated and manufactured without halogens is a real solution to the reduction of energy consumption with respect to the environment. The composition of **K-FLEX® ECO** renders any fumes released during a fire, transparent and nontoxic.

K-FLEX® ECO > RANGE			
	✓ Length ✓	 Thicknesses 	 Diameters
K-FLEX [®] ECO - Tubes	2 m	9-13-19-25-32 mm	from 10 to 114 mm
	- Thicknesses -		🕶 Height 📼
K-FLEX [®] ECO - Sheets	6-10-13-19-25-32-40-50 mm		1000 mm
K-FLEX [®] ECO - Adhesive sheets	6-10-13-19-25-32-40-50 n	nm	1000 mm

K-FLEX® SOLAR HT









K-FLEX[®] SOLAR HT

- Elastomeric insulation for high temperatures
- Ideal solution for industrial and solar systems
- Increased energy efficiency
- ▶ EPDM with UV protection
- Also available with protective coatings for adverse weather conditions



K-FLEX® ▶ SOLAR HT

TECHNICAL DATA



K-FLEX[®] SOLAR HT > TECHNICAL DATA

 Property 		🕶 Value 💌	
Temperature range	From -40 °C to +150 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	0 °C = 0,040 40 °C = 0,044		EN 13787 EN 12667 EN ISO 8497
Corrosion prevention	pH neutral (7±0,5)		EN 13468
Fire rating	Euroclass E		EN 13501-1
Ecological data	Without CFCs and HCFCs		
		K-FLEX [®] reserves the right to change data	and technical requirements without notice.

GENERAL INFORMATION

Elastomeric EPDM (Ethylene-Propylene Diene Monomer) rubber based insulation with excellent mechanical properties suitable for high temperatures. Good UV resistance.

The rational and convenient solution for solar panels and industrial processes up to 150 °C. A new, revolutionary box, tailormade for the client, offering practical and economical advantages for use and distribution.





K-FLEX [®] SOLAR HT > RANG	E		
	- Length -	 Thicknesses 	➡ Diameters ➡
K-FLEX® SOLAR HT - Tubes	2 m 13-19-25 mm		from 10 to 89 mm
K-FLEX [®] SOLAR HT - Rolls		13-19 mm	15-18-22 mm
	 Thicknesses 		🕶 Height 🛥
K-FLEX [®] SOLAR HT - Sheets	10-13-19-25-32 mm		1000 mm









Zamo, Poland





K-FLEX® PE









K-FLEX[®] PE

- Manufactured specifically for insulation of heating/ air conditioning pipes and underfloor installations
- Excellent mechanical strength and resistance to compression
- Tear resistant
- Quick to install



K-FLEX® ▶ PE

TECHNICAL DATA



K-FLEX® PE/PE PLUS > TECHNICAL DATA

- Property -	→ Value → → Test method →		
Temperature range	untill +100 °C	EN 14707	
Thermal conductivity λ W/(m•K)	+10 °C = 0,036 +40 °C = 0,040	EN ISO 8497	
Corrosion prevention	ph Neutral (7±0,5)		
Fire rating			
Ecological data	Without CFCs and HCFCs		
Density	30 (±7) kg/m ³		
	K-FLEX® reserves the right to change data and technical requirements without notice		



K-FLEX® PE COLOR/PE PLUS COLOR > TECHNICAL DATA

- Property -	- Value -	
Temperature range	untill +100 °C	EN 14707
Thermal conductivity λ W/(m•K)	+10 °C = 0,036 +40 °C = 0,040	EN ISO 8497
Corrosion prevention	ph Neutral (7±0,5)	
Fire rating	K-FLEX® PE COLOR: Euroclass D_L -s1, d0 K-FLEX® PE PLUS COLOR: Euroclass B_L -s1, d0	EN 13501-1
Ecological data	Without CFCs and HCFCs	
Density	30 (±7) kg/m ³	
	K-FLEX® reserves the righ	t to change data and technical requirements without notice.



GENERAL INFORMATION

K-FLEX® PE is an extruded polyethylene closed cell insulation tube, available in different diameters and thickness **K-FLEX® PE** is ideal for heat insulation of pipelines of heating systems, cold and hot water supply, ventilation and air conditioning, and equipment.

K-FLEX® PE PLUS is an extruded polyethylene closed cell insulation tube with an improved fire classification rating. This product fulfils all the highest building standards in term of fire reaction.

K-FLEX[®] PE PLUS is ideal for heat insulation of pipelines of heating systems, cold and hot water supply, ventilation and air conditioning, and equipment.

K-FLEX® PE COLOR is a coextruded polyethylene closed cell insulation tube, available in different diameters and thickness, specifically designed for all that applications where an additional mechanical protection is required.
 K-FLEX® PE COLOR is ideal for heat insulation of pipelines of heating systems, cold and hot water supply, ventilation and air conditioning, equipment and underfloor applications.

K-FLEX® PE PLUS COLOR is a coextruded polyethylene closed cell insulation tube with an improved fire classification rating, available in different diameters and thickness, specifically designed for all that applications where an additional mechanical protection is required. This product fulfils all the highest building standards in term of fire reaction.

K-FLEX® PE PLUS COLOR is ideal for heat insulation of pipelines of heating systems, cold and hot water supply, ventilation and air conditioning, equipment and underfloor applications.

K-FLEX [®] PE ▶ RANGE			
	- Length -	- Thicknesses -	 Diameters
K-FLEX [®] PE - Tube	1 - 2 m	6 - 9 - 13 - 20 - 25 - 30 mm	from 15 to 114 mm
K-FLEX [®] PE PLUS - Tube	2 m	6 - 9 - 13 - 20 - 25 - 30 mm	from 15 to 114 mm
K-FLEX [®] PE COLOR - Tube and coils	2 m	4 - 6 - 9 - 13 - 20 - 25 mm	from 12 to 42 mm
K-FLEX® PE PLUS COLOR - Tube	2 m	6 - 9 - 13 - 20 - 25 mm	from 12 to 42 mm

K-FLEX® PE COLOR available in COILS format for 4-6 mm thickness

K-FLEX® ACCESSORIES



K-FLEX® CLOTH DUCT TAPE









K-FLEX® K 420 Glue

K-FLEX[®] GLUE DISPENSER

K-FLEX® K-ROCK

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K-FLEX® K-ROCK

- > Products with uniform thickness in mineral wool
- Also available with ALU finishing
- > Thermal and acoustic insulation in industrial applications
- > Suitable for high and low temperatures for boilers, ducts, ovens and other industrial equipment

K-FLEX[®] ► K-ROCK

TECHNICAL DATA



K-FLEX® K-ROCK > TUBE		
Property	🔻 Value 💌	🐨 Test method 🐨
Maximum services temperature	+600 °C	EN 14706
Thermal conductivity λ W/(m·K)	+50 °C = 0,039 +100 °C = 0,046 +150 °C = 0,056 +200 °C = 0,067 +250 °C = 0,081 +300 °C = 0,096 +350 °C = 0,115 +400 °C = 0,135	EN ISO 8497
Water absorption	WS01 (≤ 1.00 kg/m²)	EN 13472
Reaction to fire	Euroclass A1	EN 13501-1
Silicon free	Manufactured without addition of silicone oil	

K-FLEX® reserves the right to change data and technical requirements without notice.



K-FLEX [®] K-ROCK ALU > TUBE		
Property	🗸 Value 🗸	
Maximum services temperature	+600 °C	EN 14706
Thermal conductivity λ W/(m·K)	+50 °C = 0,039 +100 °C = 0,046 +150 °C = 0,056 +200 °C = 0,067 +250 °C = 0,081 +300 °C = 0,096 +350 °C = 0,115 +400 °C = 0,135	EN ISO 8497
Water absorption	WS01 (≤ 1.00 kg/m²)	EN 13472
Reaction to fire	Euroclass A2 _L	EN 13501-1
Silicon free	Manufactured without addition of silicone oil	
K-FLEX® reserves the right to change data and technical requirements without notice		



DESCRIPTION

K-FLEX® K-ROCK is a pipe made of uncoated mineral wool, 1000mm in length. The product is fireproof and has a high geometric accuracy. The pipes are made with a longitudinal slit on one side and are semi-cut on the opposite inner side to facilitate mounting onto pipes.

K-FLEX[®] K-ROCK ALU fireproof mineral wool pipes, protected by an outer coating of reinforced aluminum with high resistance to water vapour. K-FLEX[®] K-ROCK ALU is recommended for thermal insulation of pipes conveying hot and cold fluids in buildings in residential, service and industrial sectors.

APPLICATIONS

K-FLEX® K-ROCK pipes are ideal for thermal and acoustic insulation applications and protection against fire. **K-FLEX® K-ROCK ALU** pipes are ideal for pipework carrying hot and cold fluid in building facilities.

HANDLING AND STORAGE

K-FLEX® K-ROCK products are packaged to facilitate easy handling on most construction sites. They can be cut, made into pieces and easily assembled using standard tools. Do not store outside.

K-FLEX® K-ROCK > RANGE			
	- Length -	 Thicknesses 	- Diameters -
K-FLEX® K-ROCK - Tube	1 m	20 - 25 - 30 - 40 - 50 - 60 - 70 - 80 - 100 - 120 mm	from 15 to 324 mm
K-FLEX® K-ROCK ALU - Tube	1 m	20 - 25 - 30 - 40 - 50 - 60 - 70 - 80 - 100 - 120 mm	from 15 to 324 mm

K-FLEX® ACCESSORIES



K-FLEX® ALU AR CW TAPE Foil-Scrim backing, combined with cold weather solvent acrylic adhesive, protected by an easy-release silicone release paper. Cold Weather version (low temperatures).

K-FLEX[®] AL CLAD SYSTEM









K-FLEX® AL CLAD SYSTEM

- Versatile and flexible
- Reduced installation costs
- Economic system management
- Aesthetic finish
- > UV and weather resistant
- Can be applied to any insulation system



TECHNICAL DATA

K-FLEX® AL CLAD JACKETING (COVERING FOIL) > TECHNICAL DATA						
Weight	Approx.	388 g/m ²	EN 22 286			
Thickness	Approx.	280 µm	DIN 53 370			
Traction resistance	longitudinal transverse	175 N/15 mm 175 N/15 mm	ISO 527- 3 ISO 527- 3			
Breaking strain	longitudinal transverse	35 % 40 %	ISO 527- 3 ISO 527- 3			
Resistance to tearing	longitudinal transverse	155 N/25 mm 182 N/25 mm	ISO 527- 3 ISO 527- 3			
Resistance to bending	longitudinal transverse	90 N/mm ² 90 N/mm ²	DIN 53 864 DIN 53 864			
Permeability to vapour	0,052 g/m2/d		DIN 53 122			
Fire rating (with K-FLEX® ST)	Sheet: Euroclass D-s3, d0 Tube: Euroclass CL-s3, d0 Class 0		EN 13501-1 EN 13501-1 BS 476 Part 6/7			

RESISTANCE CHA	RACTERISTICS OF THE AL CLAD SHEET TO ATMOSPHERIC AGENTS > TECHNICAL DATA
UV resistance	>2000 hours 500 W/m ² (Atlas Suntest XLS+ QUV, internal test)
Radiation resistance	>3.600.000 kJ/m ²
Resistance to humidity	>2000 hours UVC (internal test)

K-FLEX® AL CL	AD: RESISTANCE OF TH	E SURFACE TO	AGGRESSIVE CHEM	ICALS > TECHNICA	L DATA
Acids	acetic acid (max concentration) 50% formic acid 10% hydrochloric acid 30% hydrochloric acid 10% and 35% hydrofluoric acid 10% nitric acid 65% and 100% nitric acid 30% and 85% phosphoric acid 20% sulphuric acid	resistant resistant partially resistant resistant resistant partially resistant resistant partially resistant partially resistant	Hydrocarbons	Aliphatic hydrocarbon Benzene Petroleum Mineral oil Toluene Xylene	resistant resistant resistant resistant resistant resistant
Aldehydes	Acetaldehyde Formaldehyde	resistant resistant	Other organic substances	Acetone Ether	resistant resistant
Alcohols	Benzyl alcohol Cyclohexanol Ethyl alcohol Glycerine Glycol Isopropyl alcohol Methyl alcohol	partially resistant resistant resistant resistant resistant resistant resistant	Salt solutions	Bichromates Cyanides Fluorides	resistant resistant resistant
Alkaline solutions	Ammonium hydroxide Calcium hydroxide	partially resistant partially resistant	Esters	Ethyl acetate	resistant
Chlorinate solvents	Chloroform Trichloroethylene	partially resistant partially resistant			
			K-FLEX® reserves the right	to change data and technical r	requirements without notice.



GENERAL INFORMATION



K-FLEX® AL CLAD SYSTEM TUBES

Tubes have a coating system with a high performance adhesive overlap coupled to **K-FLEX® ST** insulation. Suitable for both indoor and outdoor use, the **AL CLAD** foil has an aesthetic finish and forms an impermeable barrier protecting the insulation from UV radiation and adverse weather. The complete system is easily installed with a significant reduction in labour time.

Matching pre-formed trims complete the range.



K-FLEX® AL CLAD SYSTEM SHEETS

Sheets are composed of the **AL CLAD** coating system coupled with **K-FLEX® ST** insulation. Available in standard or self-seal, they are designed for use with conduits, ventilation ducts and large pipes. Their flexibility and ease of processing make this material especially suitable for awkward configurations and trims.

K-FLEX[®] AL CLAD SYSTEM > RANGE

	🕶 Length 🛥	- Thicknesses -	 Diameters
K-FLEX® AL CLAD - Tubes	1 m	9-13-19-25-32-40-50 mm	from 15 to 160 mm
	 Thicknesses 		- Height -
K-FLEX® AL CLAD - Sheets	6-9-13-16-19-25-32-40-50	mm	1000/1500 mm
K-FLEX® AL CLAD - Adhesive sheets	6-9-13-16-19-25-32-40-50	mm	1000/1500 mm

ACCESSORIES



Preformed K-FLEX® AL CLAD elbows

Preformed elastomeric K-FLEX[®] elbows coupled with AL CLAD foil



Preformed "T" connections with AL CLAD foil



Preformed elastomeric K-FLEX[®] "T" connections coupled with AL CLAD foil



Preformed elastomeric K-FLEX[®] elbows



Preformed elastomeric K-FLEX[®] "T" section in standard sizes



AL CLAD foil, with or without adhesive



AL CLAD adhesive tape



K-FLEX[®] AL CLAD system pipe insulated supports



K-FLEX[®] AL CLAD system pipe insulated supports with collar

K-FLEX® COLOR SYSTEM









K-FLEX® COLOR SYSTEM

- Colour finished insulation
- Aesthetic design
- Flexibile and easy of application
- Colour coding for different services
- UV protection



TECHNICAL DATA



K-FLEX® COLOR SYSTEM (FINISHING ONLY) > TECHNICAL DATA

- Property -	- Value -	
WOM 2000 hours	No significant alteration	DIN 53231
Humidistat 800 hours	Elasticity remains the same	DIN 53231
Adhesion 24 hours after humidistat	Adhesion remains intact	
UVC 2000 hours QUV/SE	No blistering, no separation, no significant alterations	
Wash H ₂ 0	No alterations	
Wash H_2^0 plus soap for hands	No alterations	
Test with solution 1	Elasticity and adhesion remain the same	DIN 53160/UAN-D1235/01
Test with solution 2	Elasticity and adhesion remain the same	DIN 53160/UAN-D1235/01
Immersion in water 60 °C 800 hours	No blistering, no separation	
Caustic soda contact to 5% 2 hours	No alterations	
Fire rating (with K-FLEX® ST)	Sheet: Euroclass C-s3, d0 Tube: Euroclass C_s3, d0	EN13501-1 EN13501-1
Fire rating (facing only)	Class 0	BS 476 Part 6/7
	K-FLEX® reserves the right to change data	and technical requirements without notice.

GENERAL INFORMATION



K-FLEX[®] COLOR SYSTEM TUBES

Insulation tube with a protective factoryapplied coating. The thin layer of colour coating offers protection against UV rays and facilitates cleaning and maintenance of the insulation. Flexible, easy to work with and install.



K-FLEX® COLOR SYSTEM SHEETS

K-FLEX® COLOR SYSTEM sheets are available in standard or self-seal. They are designed for use with conduits, ventilation ducts and large pipes. Their flexibility and ease of processing make this material especially suitable for awkward configurations and trims.



K-FLEX[®] COLOR SYSTEM ACCESSORIES

K-FLEX[®] offers a range of accessories especially for use with K-FLEX[®] COLOR SYSTEM. In addition to the standard pieces, curves, couplings and supports, adhesive tapes and coloured paints are available for re-touching and repairs.



K-FLEX® COLOR SYSTEM > RANGE							
	- Length -	 Thicknesses 	- Diameters -				
K-FLEX® COLOR - Tubes	2 m	9-13 mm 19 mm 25 mm 32 mm	from 10 to 54 mm from 15 to 54 mm from 18 to 54 mm from 18 to 42 mm				
K-FLEX® COLOR - Tubes	1 m	9-13-19 mm 25 mm 32 mm	from 57 to 160 mm from 60 to 160 mm from 48 to 160 mm				
	 Thicknesses 		🕶 Height 🛥				
K-FLEX [®] COLOR - Sheets	6-10-13-16-19-25-32-40-5	0 mm	1000/1500 mm				
K-FLEX [®] COLOR - Adhesive sheets	6-10-13-16-19-25-32-40-5	0 mm	1000/1500 mm				

COLOR RANGE

Stock colour range and product codes

RAL 7035 grey - Colour code G0

For the minimum order quantity per colour listed below, contact your sales office

RAL 5012 blue - Colour code **B0**

RAL 9002 white - Colour code G1 RAL 9011 black - Colour code N0

RAL 6032 green - Colour code V0 RAL 3000 red - Colour code R0

ACCESSORIES



K-FLEX® COLOR

preformed "T" fittings



K-FLEX® COLOR preformed elbows





K-FLEX® COLOR pipe

support with collar



K-FLEX® COLOR paint



K-FLEX® COLOR anticonsation tape



PROJECTS

Germany





K-FLEX® IN CLAD SYSTEM



The first flexible elastomeric foam approved by DNV for LNG and cryogenic applications









K-FLEX® IN CLAD SYSTEM

- Non-metallic flexible coating
- > Designed for oil & gas and industrial use
- > Developed for the most challenging environments
- High mechanical and chemical resistance
- Resistance to uv, sea salt, oil and other atmospheric agents
- Easy to install without special tools
- Full range of accessories
- Can be applied to any insulation system



TECHNICAL DATA

 Property 	👻 Value 👻	Test method			
Naterial	Flexible polymeric barrier				
Colour	Grey and Black				
Thickness	1.2 mm (± 0.2)				
MAX Surface Temperature	80°C (176°F)				
MAX application temperature, IN CLAD System	105°C (221°F) 120°C (248°F)	IN CLAD with K-FLEX [®] ST IN CLAD with K-FLEX [®] ECO			
MIN application temperature, IN CLAD System	-200°C (-328°F)	IN CLAD System with K-FLEX [®] ST tested at -163°C (-260°F) at approved with a statement of feasibility by DNV			
Nater Vapour Permeability Moisture Resistance Factor (covering)	μ > 90.000	EN12086			
Specic weight	1,8 (± 0.1 g/cm ³)				
Tensile Strength	>=6,9 MPa	ISO 37 (Typical value 7.5 MPa)			
Elongation to break	>100%	ISO 37 (Typical values: elongation at 70%, elongation to break 300%)			
Elastic Modulus	>=60 MPa	ISO 37 (Typical value70 MPa)			
Modulus 10%	>1.5 MPa	ISO 37			
Peel adhesion	>50 KPa	ISO 2411			
Shear strength	>20 N/25mm	ISO 34-1			
Hardness	>=80 ShA	ISO 7619, ASTM D2240			
JV Resistance	Extremely good	2 years of exposure in New River, Arizona (USA) as per ASTm 6 7-97, no pitting, no cracking, no blistering			
Salt Spray resistance	Extremely good	ISO 3768 / ASTM B 117-73, 480 hours. No color shade, no scaling, no blistering			
Ozone resistance	Extremely good	ASTM D1171 72h 50ppmh 20%, no oxidation			
Resistance to aging	Extremely good	ISO 4982, after 360h, 72MJ, elongation to break and modulus conform to specification			
Resistance to oil	Extremely good	ISO 1817; after 72h immersion in oil IRM 903, elongation to break and modulus conform to specification			
mpact resistance	Extremely good	EN12691; 1 Kg, 20mm, 600mm			
Health aspects	Dust and fiber free				
Spread o flame	Pass Pass	BS 476 pt 7 NF 92501			
Fire propagation	Pass	BS 476 pt 6			
Fire requirements for shipbuilding	Pass				
Approvals and Supervisions	CE Marine Mark Approved (MED, module B) Type approval by American Bureau of Shipping Type approved by Det Norske Veritas Type approved by Lloyd's Register	DNV LNG Statement of Feasibility ABS Approval			
Other properties	The product is compliant to the requirements of Norsok standard R-004 ed 3 (par. 5.9 non metallic jacketing) Application: Product is flexible down to -20°C Fixing: neoprenic glue (K-FLEX® K414, K-FLEX® K420) Sealing: SMP sealant (Bostik Findley / Simson ISR 70-03 or ISR 70-05)				



GENERAL INFORMATION



K-FLEX® IN CLAD SYSTEM TUBES

Insulation system specifically designed for aggressive environments such as offshore platforms, industrial, oil and petrochemical plants exposed to the sun and sea water and in situations where a high performance material is required. **IN CLAD SYSTEM** tubes are composed of **K-FLEX® ST** insulation coated with **IN CLAD** flexible polmeric film. The overlap facilitates installation and provides the coating system with a weather-proof seal. **K-FLE^{X®} IN CLAD SYSTEM** prevents corrosion under insulation (CUI) in your installation.



K-FLEX® IN CLAD SYSTEM SHEETS

K-FLEX® IN CLAD SYSTEM sheets are ideal for insulating large industrial pipes, tanks, silos and awkwardly shaped equipment. The system is flexible, easy to work and does not require special tooling for cutting and gluing. Sealing the joints with silicone ensures total water- and weather-proofing. The protective **IN CLAD** foil is the ideal solution to protect thermal and acoustic insulation materials. It can be applied on different insulating materials such as mineral wool, PUR/PIR, FOAMGLASS, Aerogel, etc.

K-FLEX[®] IN CLAD SYSTEM > RANGE

	- Length -	- Thicknesses -	→ Diameters →
K-FLEX [®] IN CLAD - Tubes	1 m	9-13-19-25-32-40-50 mm	from 15 to 168* mm
* For diameters greater than 168 mm, use sheet			
	 Thicknesses 		- Height -
K-FLEX [®] IN CLAD - Sheets	6-10-13-16-19-25-32-40-5	50 mm	1000 mm
K-FLEX [®] IN CLAD - Adhesive sheets	6-10-13-16-19-25-32-40-5	50 mm	1000 mm

ACCESSORIES



Preformed IN CLAD elbows - Gray



Preformed IN CLAD elbows - Black



Preformed "T" connections IN CLAD - Gray



Preformed "T" connections IN CLAD - Black



IN CLAD pipe support with collar



IN CLAD foil - Gray



IN CLAD foil - Black



IN CLAD tape - Gray



IN CLAD tape - Black

IN CLAD pipe support





K-FLEX® IC CLAD SYSTEM









K-FLEX® IC CLAD SYSTEM

- Reinforced fiberglass coating
- Excellent mechanical resistance
- Resistant to high temperatures
- > Easy to install without special tools
- Full range of accessories



TECHNICAL DATA



K-FLEX® IC CLAD SYSTEM BLACK (COVERING ONLY) > TECHNICAL DATA

- Property -	👻 Value 💌	- Tolerance -	👻 Test method 💌
Weave pattern	Plain		DIN ISO 9354
Area weight	214 g/m ²	±5%	DIN EN 12127
Tensile strenght Warp Weft	500 N/cm 350 N/cm		
Finish content	4,00-6,00 %		DIN ISO 1887
Thickness	0,18 mm		DIN ISO 4603/E
Temperature Resistance Continuous load Short time resistance	180 °C 230 °C		
Fire rating (with K-FLEX® ST)	IMO Res. A 653, Class 0 BS 476 Part 6/7		
Certication (with K-FLEX® ST)	CE Marine Mark Approved, DNV, Lloyds Register		
		the right to change date and tech	

K-FLEX® reserves the right to change data and technical requirements without notice.



K-FLEX® IC CLAD SYSTEM SILVER (COVERING ONLY) > TECHNICAL DATA

	👻 Value 👻	- Tolerance -	👻 Test method 💌
Weave pattern	Plain		DIN ISO 9354
Area weight	204 g/m ²	±5%	DIN EN 12127
Tensile strenght Warp Weft	500 N/cm 350 N/cm		
Finish content	1,00-3,00 %		DIN ISO 1887
Thickness	0,22 mm		DIN ISO 4603/E
Temperature Resistance Continuous load Short time resistance	180 °C 230 °C		
Fire rating (with K-FLEX® ST)	IMO Res. A 653, Class 0 BS 476 Part 6/7		
Certication (with K-FLEX® ST)	CE Marine Mark Approved, DNV, Lloyds Register		
	K-FLEX [®] reserves	the right to change data and techn	ical requirements without notice.



GENERAL INFORMATION



K-FLEX® IC CLAD SYSTEM TUBES

K-FLEX® IC CLAD SYSTEM tubes have an inorganic glass fibre fabric covering which is coupled to **K-FLEX® ST** insulation.

The **IC CLAD** foil is especially resistant to mechanical stress and can withstand temperature peaks up to 230°C. Available in silver (aluminum) or black.



K-FLEX® IC CLAD SYSTEM SHEETS

K-FLEX® IC CLAD SYSTEM sheets have **IC CLAD** foil backing coupled to **K-FLEX® ST** insulation. Available in standard or self-seal, they are designed for use with large pipes, tanks and silos. Their flexibility and ease of processing make this material especially suitable for awkward configurations and trims.

K-FLEX[®] IC CLAD SYSTEM > RANGE

	- Length -	- Thicknesses	
K-FLEX [®] IC CLAD - Tubes	1 m	9-13-19-25-32-40-50	0 mm from 15 to 168* mm
* For diameters greater than 168 mm, use sheet			
	 Thicknesses 		🕶 Height 🛥
K-FLEX [®] IC CLAD - Sheets	6-10-13-16-19-25-32-40-50 mm		1000 mm
K-FLEX [®] IC CLAD - Adhesive sheets	6-10-13-16-19-25-32-40-50 mm		1000 mm

ACCESSORIES



Preformed IC CLAD elbows - Silver



Preformed IC CLAD elbows - Black



Preformed "T" connections IC CLAD - Silver



Preformed "T" connections IC CLAD - Black



IC CLAD tape - Silver



IC CLAD tape - Black





IC CLAD foil - Black



Silicone



SOLAR SYSTEM





K-FLEX® SOLAR SYSTEM

K-FLEX® offers a line of products designed specifically for solar heating, renewable energy sources used to produce hot water using solar energy. The K-FLEX® TWIN SOLAR product range consists of a system to connect the hot water storage tank with the solar panel, composed of two corrugated stainless steel tubes (flow and return) with a sensor cable and a high temperature thermal insulator made of EPDM rubber coated with a film that provides both UV and mechanical protection. A range of fittings and mounting accessories make installation a fast and easy process.



K-FLEX® ▶ SOLAR SYSTEM

PRODUCT AND APPLICATIONS

	(***	(LES)	*		(JZ)				HALOGEN FREE	
	Heating	Air Conditioning / Ventilation	Refrigeration	Solar	Industrial	Oil & Gas	Ship building	Train	Halogen Free	UV Resistant
K-FLEX® SOLAR R				•						•
K-FLEX® TWIN SOLAR SYSTEM				•						•
K-FLEX® TWIN SOLAR SYSTEM SLIM				•						•

K-FLEX® > SYSTEMS SELECTOR	
- Special requirements -	✓ K-FLEX [®] solutions ✓
Solar power product range	K-FLEX® SOLAR R K-FLEX® TWIN SOLAR SYSTEM K-FLEX® TWIN SOLAR SYSTEM SLIM
UV and weather protection	K-FLEX® SOLAR R K-FLEX® TWIN SOLAR SYSTEM K-FLEX® TWIN SOLAR SYSTEM SLIM
Good mechanical resistance	K-FLEX® SOLAR R K-FLEX® TWIN SOLAR SYSTEM K-FLEX® TWIN SOLAR SYSTEM SLIM
Complete system	K-FLEX® TWIN SOLAR SYSTEM K-FLEX® TWIN SOLAR SYSTEM SLIM
Products for installations already completed	K-FLEX [®] SOLAR R
Products for roof space and passages	K-FLEX® TWIN SOLAR SYSTEM SLIM
Quick and easy installation	K-FLEX® SOLAR R K-FLEX® TWIN SOLAR SYSTEM K-FLEX® TWIN SOLAR SYSTEM SLIM


PACKAGING

	CARTONS PRODUCTS		CARTON E	DIMENSIONS	5 (CM)	CARTONS/ PALLET	PALLET D	IMENSIONS	(CM)	PALLET/ TRUCK	PALLET**
CAP		LENGTH	WIDTH	HEIGHT	QUANTITY*	LENGTH	WIDTH	HEIGHT	QUANTITY	PALLE I **	
		K-FLEX® TWIN SOLAR SYSTEM	80 80 80 80	80 80 80 80	29 39 55 65	14 12 8 6	160 160 160 160	80 80 80 80	218 249 235 210		
		K-FLEX® SOLAR R (Rolls)	60	60	45	40	212	118	245		
		K-FLEX [®] SOLAR R (Standard carton)	39	32	210	21	212	118	145		
		K-FLEX® SOLAR R (Half carton)	39	15,5	210	42	212	118	140		
•		K-FLEX® TWIN SOLAR SYSTEM SLIM	120 120 80 115	120 120 80 115	80 64 82 84	2 2 2 2	120 120 80 120	120 120 80 120	175 143 179 183		
* Max ** Ima	ximum numbe ages for illusti	er per pallet ration purposes only, the amo	unt of cartons/pa	llet may differ fro	om that shown.						

K-FLEX® TWIN SOLAR SYSTEM











K-FLEX® TWIN SOLAR SYSTEM

- Complete range of insulation products
- Fast & easy installation
- UV resistant
- Minimises heat loss



TECHNICAL DATA



K-FLEX® SOLAR R > TECHNICAL DATA

		🕶 Value 🛥	
Temperature range	From -40 °C to +150 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	0 °C = 0,040		EN 13787 EN ISO 8497
Fire rating	Euroclass E		EN 13501-1
UV resistance	Good		EN 13859-1
		K-FLEX® reserves the right to change data	and technical requirements without notice.

GENERAL INFORMATION

The convenient solution for solar panels and industrial processes.

Recommended for solar panels and and low pressure steam or industrial process.

K-FLEX® SOLAR R is available in rolls, standard cartons, and half cartons.



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K-FLEX® SOLAR R > RANGE								
	INSULATION	TUBE DIAMETER						
	THICKNESS	12 MM	15 MM	18 MM	22 MM	28 MM	35 MM	LENGTH
K-FLEX [®] SOLAR R Roll	14 mm				•	•	•	
K-FLEX [®] SOLAR R Roll	20 mm		•	•	•	•	•	
K-FLEX [®] SOLAR R Standard Carton	14 mm				•	•	•	2 m
K-FLEX [®] SOLAR R Standard Carton	20 mm	•	•	•	•	•	•	2 m
K-FLEX [®] SOLAR R Half Carton	14 mm				•	•	•	2 m
K-FLEX [®] SOLAR R Half Carton	20 mm	•	•	•	•	•	•	2 m

PACKAGING

ROLL	STANDARD CARTON	HALF CARTON

600 mm x 600 mm x 405 mm

390 mm x 320 mm x 2100 mm

390 mm x 155 mm x 2100 mm

TECHNICAL DATA



K-FLEX[®] SOLAR R > TECHNICAL DATA

- Property -	- Value -	
Temperature range	From -40 °C to +150 °C	EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	0 °C = 0,040	EN 13787 EN ISO 8497
Fire rating	Euroclass E	EN 13501-1
UV resistance	Good	EN 13859-1





ANULAR FLEXIBLE STAINLESS STEEL TUBE > TECHNICAL DATA					
Material	AISI 316 L				
→ Ext.Ø (mm) →	- DN -	👻 Thickness (mm) 👻	Max service ➡ pressure (bar) ➡	Bend radius ➡ (mm) ➡	
21,3 ±0,2	16	0,18	16	25	
26,4 ±0,2	20	0,18	10	30	
31,8 ±0,4	25	0,20	10	35	

K-FLEX® reserves the right to change data and technical requirements without notice.



TEMPERATURE SENSOR WIRE > TECHNICAL DATA

- Property -	👻 Value 👻
Temperature range	From -60 °C to +200 °C
Flexible Copper Ø 2x0.75 mm	CEI 20 - 19/15
Wire Insulation	Silicon Rubber
Rated Voltage	300/500 V
Electrical Resistance	26.0 Ohm/km

 $\ensuremath{\textbf{K-FLEX}}\xspace^{\ensuremath{\textbf{e}}}$ reserves the right to change data and technical requirements without notice.



GENERAL INFORMATION

K-FLEX® TWIN SOLAR SYSTEM Is a solar thermal insulation system which is resistant to high temperatures. It facilitates the connection of a hot water tank to a solar panel; it is designed to minimise heat loss and be resistant to chemicals and weather.



K-FLEX® TWIN SOLAR SYSTEM > RANGE

	TUBE DIAMETER		INSULATION	TUBE LENGTH			
	OD	WALL THICKNESS	THICKNESS	10 M	15 M	20 M	25 M
K-FLEX [®] TWIN SOLAR System DN16	21,3 ^{±0,2} mm 21,3 ^{±0,2} mm	0,18 mm 0,18 mm	14 mm 20 mm	•	•	•	:
K-FLEX [®] TWIN SOLAR System DN20	26,4 ^{±0,2} mm 26,4 ^{±0,2} mm	0,18 mm 0,18 mm	14 mm 20 mm	•	•	•	:
K-FLEX [®] TWIN SOLAR System DN25	31,8 ^{±0,4} mm 31,8 ^{±0,4} mm	0,20 mm 0,20 mm	14 mm 20 mm		•	•	•

K-FLEX[®] ► SOLAR SYSTEM

COMPRESSION QUICK COUPLING



Quick assembly without the need for tools or special equipment. Simple metal to metal seal.



EXTERNAL THREAD COUPLING

External Thread 1/2" DN16

External Thread 3/4" DN16

External Thread 3/4" DN20

External Thread 1" DN20

External Thread 1 1/4" DN25



INTERNAL THREAD COUPLING Internal Thread 1/2" DN16 Internal Thread 3/4" DN16 Internal Thread 3/4" DN20



COUPLING WITH CU CLAMPING RING

Internal Thread 1" DN20

Connection system Steel DN 16 Copper Ø 15 mm **Connection system Steel DN 16 Copper** Ø 18 / 22 mm* **Connection system Steel DN 20 Copper** Ø 18 / 22 mm **Connection system Steel DN 25 Copper** Ø 18 / 22 mm

* Copper connection Ø 18 or 22 mm





DN 16

DN 25

Meets safety requirements and enhances performance by eradicating assembly mistakes.



DOUBLE COUPLING

Double Coupling system DN 16 - DN 16

Double Coupling system DN 20 - DN 20

Double Coupling system DN 25 - DN 25

STRAIGHT FITTING
DN 16 - Straight fitting Ø 22 mm
DN 20 - Straight fitting Ø 22 mm
DN 25 - Straight fitting Ø 22 mm
DN 16 - Straight fitting Ø 18 mm
DN 20 - Straight fitting Ø 18 mm
DN 25 - Straight fitting Ø 18 mm



OLIVE

Olive for compression coupling DN 16

- Olive for compression coupling DN 20
- Olive for compression coupling DN 25

ACCESSORIES



Flange Tool



Tube Clamp







Oval Pipe Support



COMPRESSION QUICK COUPLING - ASSEMBLING

Place the blade in the groove perpendicularly the pipe.







The cut must be clean and without burrs.



Do not disassemble the fitting: should this accidentally occur, the fool of the inner ring must be rested on the fitting body.





Manually loosen the bolt by approximately ½ rev, unless it is not already loose (fig.5) Push the pipe into the fitting until the "CLACK" sounds (fig. 6).









K-FLEX® TWIN SOLAR SYSTEM SLIM











K-FLEX® TWIN SOLAR SYSTEM SLIM

- Specifically designed for solar thermal panels
- UV resistant
- Saving on installation time
- Ideal for installations in confined spaces and under tiles



TECHNICAL DATA



K-FLEX® INSULATION > TECHNICAL DATA

- Property -	•	Value 👻	
Temperature range	From -40 °C to +150 °C		EN 14706 EN 14707
Thermal conductivity λ W/(m•K)	0 °C = 0,040		EN 13787 EN ISO 8497
Fire rating	Euroclass E		EN 13501-1
UV resistance	Good		EN 13859-1
		K-FLEX® reserves the right to change data	and technical requirements without notice.



ANULAR FLEXIBLE STAINLESS STEEL TUBE > TECHNICAL DATA					
Material	AISI 316 L				
→ Ext.Ø (mm) →	- DN -	👻 Thickness (mm) 👻	Max service v pressure (bar) v	Bend radius 👻 (mm) 👻	
21,3 ±0,2	16	0,18	16	25	
26,4 ±0,2	20	0,18	10	30	
31,8 ±0,4	25	0,20	10	35	

K-FLEX® reserves the right to change data and technical requirements without notice.



TEMPERATURE SENSOR WIRE > TECHNICAL DATA

- Property -	👻 Value 👻
Temperature range	From -60 °C to +200 °C
Flexible Copper Ø 2x0.75 mm	CEI 20 - 19/15
Wire Insulation	Silicon Rubber
Rated Voltage	300/500 V
Electrical Resistance	26.0 Ohm/km

 $\ensuremath{\textbf{K-FLEX}}\xspace^{\ensuremath{\textbf{e}}}$ reserves the right to change data and technical requirements without notice.



GENERAL INFORMATION

Thermal insulation systems for solar power with resistance to high temperatures. For connecting the hot water storage tank with the solar panel saving on installation time. Designed to minimise heat loss. Good chemical resistance and weatherproof. Ideal for roof space and passages.



K-FLEX® TWIN SOLAR SYSTEM SLIM > RANGE										
	STEEL TUBES	INSULATION	TUBE LEN	IGTH						COILS WEIGHT
	DN	THICKNESS	10 M	15 M	20 M	25 M	50 M	100 M	150 M	
K-FLEX® TWIN SOLAR System Slim Tubes	16 20 25	9 mm 9 mm 9 mm	:	:	:	:				
K-FLEX® TWIN SOLAR System Slim Coils	16 20 25	9 mm 9 mm 9 mm					•	•	•	45 - 105 - 135 kg 55 - 110 - 120 kg 55 - 105 kg

K-FLEX[®] DE-REELER AND MANUAL DE-REELER

Thermal insulation systems for solar power with resistance to high temperatures. For connecting the hot water storage tank with the solar panel saving on installation time. Designed to minimise heat loss. Good chemical resistance and weatherproof. Ideal for roof space and passages.

De-reeler for the production of K-FLEX[®] TWIN SOLAR SLIM rolls of variable dimensions. Designed and built for fast and easy operation. An ideal tool for precision cutting; also suitable for use on construction sites, in warehouses and retail outlets.

MACHINE PARTS:

FRAMEWORK – Designed to use K-FLEX[®] TWIN SOLAR SYSTEM SLIM drums. CUTTING DISC – to enable the tube to be cut to the desired length. METRE COUNTER – For accurate measurement of lengths cut to the customer's own specification.

RE-REELER – Ratchet system to facilitate re-coiling the product in the required lengths.

Machine dimensions: 2370 mm x 1200 mm x 1350 mm.





K-FLEX® K-FONIK SYSTEM

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K-FLEX® K-FONIK SYSTEM

- Acoustic insulation of waste and rainwater drainage pipes
- Acoustic insulation of industrial pipes, civil and industrial machinery
- Solutions for traditional brick dividing walls and dry construction systems (plasterboard)
- Underfloor solutions
- > Applications in shipbuilding and rail



K-FLEX[®] ► K-FONIK SYSTEM

GENERAL INFORMATION

Whether at home, work or leisure, most of our time is spent inside buildings, so it is important that we feel comfortable. The optimum environment is created from a combination of the correct ambient temperature, humidity and lighting, access to necessary resources and suitable acoustic insulation. All these factors have to be taken into consideration when designing buildings, and will also have a direct bearing on the build cost and final project value.

K-FLEX[®] offers good value high performance acoustic solutions to meet the demands of today's buildings (both new-build and renovation projects) with high quality, excellent durability and optimum design, complying with the required regulations.

K-FLEX[®] products are manufactured to the highest specifications using high quality durable materials and finishes with excellent performance qualities.



SOUND ABSORPTION MATERIALS

To absorb and dissipate sound energy reducing its reflection from the source.



SOUND INSULATION MATERIALS

To isolate airborne noise and prevent its migration.



DAMPING MATERIALS

To dampen noise produced by vibrations from sheets, panels and covers.



PRODUCTS AND APPLICATIONS

		SOUNI	D INSUL	ATION		SOUND ABSORPTION					SYSTEM	
WORK Sector	APPLICATIONS	K-FLEX® ST	K-FLEX® K-FONIK ST GK	K-Flex® K-Fonik GK	K-FLEX® K-FONIK GV	K-FLEX® K-FONIK OPEN CELL160	K-FLEX® K-FONIK OPEN CELL 240	K-FLEX® K-FONIK B	K-FLEX® K-FONIK P	K-FLEX® K-FONIK PE GK	K-Flex® K-fonik pu gk	K-FLEX® INDUSTRIAL*
BUILDING	Floors Walls Structure	•	•	•		•	•	•	•			
HVAC	Ventilation ducts and drainage pipes		•	•		•	•	•		•	•	
INDUSTRIAL and OIL & GAS	Piping, equipment and plants			•	•		•					•
OEM Products	Machinery covers, engine compartments		•	•		•	•	•	•	•	•	
TRAIN & Shipbuilding	Engine and frames, partitions, technical installations				•							
AUTOMOTIVE	Engine noise insulation and frames, sound absorption for roof frames, driver cabins		•	•		•	•					
* Refer to K-FLEX [®] K-	FONIK INDUSTRIAL brochure											

K-FLEX[®] ► K-FONIK SYSTEM

APPLICATION EXAMPLES BUILDING





PROJECTS

Poland







PACKAGING

PRODUCTS				CARTON DIMENSIONS (CM) CARTONS/ PALLET DIMENSIONS (CM)			PALLET**	
	LENGTH	WIDTH	HEIGHT	QUANTITY*	LENGTH	WIDTH	HEIGHT	PALLET**
K-FLEX® K-FONIK GK/GV: 1000mm 1200mm 1500mm	102 - -	19 - -	16,5 - -	16 from 1 to 5 1	120 120 130	80 80 110	12 12 12	
K-FLEX® K-FONIK OPEN CELL	210	109	16,5	7	210	110	14	
K-Flex® K-Fonik St GK	102	19	19	30	110	110	14	
	GK/GV: 1000 mm 1200 mm 1500 mm K-FLEX® K-FONIK OPEN CELL	K-FLEX® K-FONIK GK/GV: 102 1000 mm - 1200 mm - 1500 mm - K-FLEX® K-FONIK OPEN CELL 210 K-FLEX® K-FONIK 102	K-FLEX® K-FONIK GK/GV: 102 19 1000 mm 1200 mm - 1500 mm K-FLEX® K-FONIK OPEN CELL 102 109 K-FLEX® K-FONIK 102 19 109	K-FLEX® K-FONIK 102 19 16,5 1000 mm - - - 1200 mm - - - 1500 mm - - - K-FLEX® K-FONIK 210 109 16,5 K-FLEX® K-FONIK 210 109 16,5 K-FLEX® K-FONIK 102 19 19	K-FLEX® K-FONIK 102 19 16,5 16 1000 mm - - - from 1 to 5 1200 mm - - - 1 IS00 mm - - - 1 K-FLEX® K-FONIK 210 109 16,5 7 K-FLEX® K-FONIK 210 109 16,5 7 K-FLEX® K-FONIK 210 19 19 30	K-FLEX® K-FONIK 102 19 16,5 16 120 1000 mm - - - 100 mm 100 1200 mm - - - 1 130 1500 mm - - - 1 130 K-FLEX® K-FONIK 210 109 16,5 7 210 K-FLEX® K-FONIK 210 109 16,5 7 210 K-FLEX® K-FONIK 210 109 16,5 7 210 K-FLEX® K-FONIK 102 19 19 30 110	K-FLEX® K-FONIK 102 19 16,5 16 120 80 1200 mm - - - 1 105 100 80 1200 mm - - - 1 105 100	K-FLEX® K-FONIK GK/GV: 1000 mm 102 19 16,5 16 120 80 12 1200 mm - - - 1 105 120 80 12 1200 mm - - - 1 105 120 80 12 1500 mm - - - 1 105 130 110 12 K-FLEX® K-FONIK OPEN CELL 210 109 16,5 7 210 110 14

K-FLEX® **K-FONIK GK / GV**

High-density elastomeric acoustic insulating panel for building, OEM and industrial applications. The product is lead-free and therefore does not represent a health risk.

K-FONIK GK is a high density elastomeric material based on partially reticulated polymers with viscoelastic properties designed for acoustic insulation applications. Installed as a mass barrier, its special sound insulation characteristics make it an excellent product for insulation of walls and ceilings in civil applications, pipe insulation in industrial applications and damping reduction in OEM applications.

K-FONIK GV is a high density elastomeric material based on partially reticulated polymers and fireproof mineral fillers. Its viscoelastic properties make it ideal for acoustic insulation in shipbuilding and railway applications.

ACOUSTIC PERFORMANCE









APPLICATION

K-FONIK GK is ideal for sound insulation of walls, ceilings, acoustic cabins, drainage systems, OEM sound insulation applications, etc.

K-FONIK GV is ideal for the railway and shipbuilding industries.

RANGE

K-FONIK GK from 4 to 8 Ka/m² High-density elastomeric materia **K-FONIK GV** from 4 to 8 Kg/m² High-density tomeric material

Please see the price list for the full range

K-FLEX® K-FONIK GK > TECHNICAL DATA

- Property -	▼ Value ▼	\bullet Test method \bullet
Material type	High density elastomeric material	
Fire rating	B - s3,d0 ¹⁾ , IMO A653 (CE MARINE) ²⁾ , FMVSS 302 Class 0	EN 13501 BS 476 Part 6/7
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm; 1200 x 2000 mm; 1500 x 2000 mm - Rolls 25 or 50 m	
Surface	Smooth ³⁾	
Weight	From 4 Kg/m ² to 8 Kg/m ²	
Base colour	Black (GK) White (GV)	
Density	2000 Kg/m ³ (±10%)	
1) Only for K FONIK	CI(an request 0) Only for I(FONII(C))	

1) Only for K-FONIK GK on request 2) Only for K-FONIK GV 3) Different finishes available: ALU and non-woven fabric

K-FLEX® reserves the right to change data and technical requirements without notice.



K-FLEX® K-FONIK OPEN CELL

K-FONIK OPEN CELL is an open cell Flexible Elastomeric Foam designed for sound absorption.

Its viscoelastic properties, open cell structure and good air flow resistance make it excellent for acoustic insulation in building, HVAC/R, pipes and industrial applications. It combines excellent acoustic performances and insulation characteristics.

APPLICATION

K-FONIK OPEN CELL is ideal for sound absorption application; industrial pipes, building, OEM products and HVAC/R.

ACOUSTIC PERFORMANCE



Frequency (Hz)



K-FONIK OPEN CELL 240, 10 mm α_w = 0,25 K-FONIK OPEN CELL 240, 15 mm α_{w} = 0,40 K-FONIK OPEN CELL 240, 25 mm α_{w} = 0,55 K-FONIK OPEN CELL 240, 50 mm α_w = 0,90





RANGE

K-FONIK OPEN CELL

160 - 240

• from 10 to 350 mm

Please see the price list for the full range

K-FLEX® K-FONIK OPEN CELL > TECHNICAL DATA					
- Property -	- Value -	- Test method -			
Material type	Flexible elastomeric foam open cell				
Density	OPEN CELL 160: ≥ 100 kg/m³ OPEN CELL 240: 240 kg/m³ (-20 / +120 kg/m³)				
Thermal conductivity	OPEN CELL 240: 0,056 W/(m●K) OPEN CELL 160: 0,048 W/(m●K)	EN 12667			
Fire rating	C-s3,d0 Class 1	EN 13501-1 BS 476 Part 6/7			
Temperature	-40 °C +85 °C				
Thickness	From 10 to 500 mm				
Base colour	Black				
Modulus (MPa)	22 ± 3.7 (160) - 57.7 ± 8.0 (240)				
Elongation to break (%)	114 ± 33 (160) - 140 ± 47 (240)				
Insertion Loss	K-FONIK 160 10mm $R_w=5 dB$ K-FONIK 160 15mm $R_w=8 dB$ K-FONIK 160 25mm $R_w=9 dB$ K-FONIK 240 10mm $R_w=8 dB$ K-FONIK 240 15mm $R_w=10 dB$ K-FONIK 240 25mm $R_w=14 dB$				
K-FLEX® reser	ves the right to change data and technical requ	irements without notice.			

EX[®] reserves the right to change data and technical requirements without notice.

K-FLEX® K-FONIK ST GK

Smooth elastomeric sound insulation panel in various thicknesses, coupled with a high density elastomeric sheet. The product is lead-free and therefore does not represent a health risk.

K-FONIK ST GK combines the features of K-FONIK GK with a layer of our elastomeric K-FLEX[®] ST.

APPLICATION

K-FONIK ST GK is ideal for sound insulation of walls, ceilings, acoustic cabins, drainage systems, OEM sound insulation applications, etc.

ACOUSTIC PERFORMANCE



Freq. (Hz)	R (dB)
100	16,2
125	17,3
160	16,7
200	17,6
250	17,4
315	17,6
400	20,7
500	22,9
630	24,2
800	25,8
1000	26,5
1250	27,8
1600	29,3
2000	28,9
2500	30,2
3150	33,3
4000	35,0
5000	35,9





RANGE



Please see the price list for the full range

K-FLEX® K-FONIK ST GK > TECHNICAL DATA

- Property -	🕶 Value 💌	\bullet Test method \bullet
Material type	Flexible elastomeric foam with high-density elastomeric material	
Weight	4,4 Kg/m ² (K-FONIK ST GK 072)	
Fire rating	B - s3,d0	EN 13501-1
Thermal conductivity	0.036 W/(m∙K)	EN 12667
Temperature	-40 °C +70 °C	
Dimensions	2000 x 1000 mm	
Surface	Smooth	
Base colour	Black	
K-FLEX® reserv	ves the right to change data and technical requi	rements without notice.

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K-FLEX® K-FONIK B

Embossed surface polyurethane foam sheet ideal for acoustic absorption. **K-FONIK B** material is specifically designed for situations where sound absorption is a priority. It is made of open cell flexible polyurethane foam with a density of 25/30 kg/m³. It is also available in the **K-FONIK ST B** version made with ST rubber foam.

APPLICATION

K-FONIK B is widely used in gyms, conference rooms, rifle ranges, recording studios, radio/television studios, moveable acoustic panels, engine rooms, etc.

ACOUSTIC PERFORMANCE



	B20
Freq. (Hz)	α
100	0,12
125	0,23
160	0,04
200	0,09
250	0,16
315	0,10
400	0,18
500	0,25
630	0,41
800	0,43
1000	0,65
1250	0,67
1600	0,80
2000	0,75
2500	0,76
3150	0,86
4000	0,81
5000	0,74
α"	0,28





RANGE





Please see the price list for the full range

PU 10 mm

PU 10 mm

K-FLEX® K-FONIK B > TECHNICAL DATA					
- Property -	🕶 Value 💌	🖵 Test method 🖵			
Material type	Polyurethane foam Flexible elastomeric foam				
Density	25 ÷ 30 Kg/m ³				
Fire rating	B - s3,d0 (only ST B version)	EN 13501-1			
Temperature	-40 °C +70 °C				
Dimensions	1000 x 2000 mm - also available in rolls of different sizes				
Surface	Embossed				
Thickness	20 mm				
Base colour	Black				
K-FLEX® reserv	ves the right to change data and technical requi	rements without notice.			

K-FLEX® K-FONIK PE GK

K-FONIK PE GK is a sound insulation material with high density elastomeric sheet specifically designed to provide a solution to particular soundproofing problems. K-FONIK PE **GK** is a complete range with specific features designed to handle different types of acoustic requirements.

APPLICATION

K-FONIK PE GK is ideal for the sound insulation of fixed or false walls, ceilings and false ceilings, garages, acoustic cabins and drainage systems.

RANGE

K-FONIK PE GK



Please see the price list for the full range

PE 3 mm K-FONIK GK 4 Kg/m² PE 3 mm

K-FLEX® K-FONIK PU GK

K-FONIK PU GK is a sound absorption material with high density elastomeric sheet specifically designed to provide a solution to particular soundproofing problems.

APPLICATION

K-FONIK PU GK is ideal for the sound insulation of fixed or false walls, ceilings and false ceilings, garages, acoustic cabins and drainage systems.

RANGE



K-FONIK PU GK

K-FONIK GK 4 Kg/m² PU 20 mm

K-FLEX® K-FONIK PE GK > TECHNICAL DATA

- Property -	🕶 Value 🛥	🖵 Test method 🖵
Material type	Polyethylene foam and high density mass	
Fire rating	Self-extinguishing	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm in rolls	
Surface	Smooth	
Base colour	Black	
K-FLEX [®] reserv	ves the right to change data and technical requi	rements without notice.



K-FLEX® K-FONIK PU GK > TECHNICAL DATA

- Property -	- Value -	\bullet Test method \bullet
Material type	Polyurethane foam and high density mass	
Fire rating	Self-extinguishing	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 2000 mm	
Surface	Surface Smooth or embossed	
Base colour	Black	
K-FLEX® reserv	res the right to change data and technical requi	rements without notice.

PU 12 mm Please see the price list for the full range

K-FONIK GK 4 Kg/m²





K-FLEX® K-FONIK P

K-FONIK P is a sound absorption material manufactured with a pyramid-shaped surface, It is the ideal acoustic insulation solution for rooms etc.

APPLICATION

K-FONIK P is widely used in gyms, conference rooms, rifle ranges, recording studios, radio/television studios, moveable acoustic panels, engine rooms, etc.

RANGE



ACOUSTIC PERFORMANCE

 $P50 - \alpha_{w} = 0,34$ $P100 - \alpha_{w} = 0,82$





Example of possible application

K-FLEX® K-FONIK P > TECHNICAL DATA

- Property -	- Value -	🕶 Test method 💌
Material type	Polyurethane foam	
Density	25 ÷ 30 Kg/m ³	
Fire rating	Self-extinguishing	
Temperature	-40 °C +70 °C	
Dimensions	1000 x 1000	
Surface	Pyramid structure	
Thickness	50 - 100 mm	
Base colour	Dark grey	
K-FLEX® reserv	res the right to change data and technical requi	rements without notice.

K-FLEX® K-FIRE









K-FLEX[®] K-FIRE

K-FLEX[®] is proud to announce K-FLEX[®] K-FIRE, the new range of product for passive fire protection. In an ever more evolving world is growing awareness and attention to the protection of people in dangerous situations, such as those resulting from a fire. New bigger, more futuristic and innovative buildings are in the design and/ or construction phase and require solutions for passive protection against fire even more efficient. K-FLEX® wants to provide designers and installers a complete range of solutions for fire protection, capable of ensuring the compliant of the most stringent regulatory requirements. K-FLEX® K-FIRE solutions are economical, versatile, easy to install and, above all, reliable. Each solution of K-FLEX® K-FIRE is tested by independent and recognized laboratories and evaluated according to the current standard of fire resistance test. K-FLEX® constantly develops new products and solutions able to satisfy all the requirements of fire stopping and fire protection.



K-FLEX[®] ► K-FIRE

K-FLEX® K-FIRE COLLAR



A range of devices designed to be fitted around plastic pipes where they penetrate fire separating structures. Under fire conditions the intumescent material within the collar expands to crush the softening pipe and fill the resultant opening, thereby maintaining the fire integrity and insulation performance of the floor or wall.

APPROVALS

- CE Marked 0843-CPR-0279
- ETA 15-0756
- > ETAG 026-2 (2011) according EN 1366-3 Penetration Seals

K-FLEX® K-FIRE COLLAR > RANGE	
⊸ Type ⊸	Thicknesses
K-FLEX® K-FIRE COLLAR-P	
Is K-FLEX®'s premium solution for protecting combustible pipe penetrations up to DN200* (larger diameter will be soon available) and consists of red painted steel shells secured by a hinge and latch system.	55 - 82 - 110 - 125 - 140 - 160 - 200mm
K-FLEX® K-FIRE COLLAR-S	
Represents an ideal solution for protecting penetration of small diameter pipes and comprises stainless steel shells that are secured by interlocking fastening system.	32 - 38 - 42 - 46 - 48 - 50 mm
K-FLEX® K-FIRE COLLAR-Z	
Represents the economical solution for protecting combustible pipe penetration, made of galvanized steel metal shells and interlocking fastening system.	55 - 65 - 70 - 82 - 90 - 110 - 125 - 140 - 160 mm
K-FLEX® K-FIRE COLLAR-E	
Is an economical solution that restores the fire resistance of flammable pipe passages, equipped with a cover made of mild galvanized steel painted white protected with a special lock with a blockade.	32 - 40 - 55 - 63 - 75 - 82 - 110 - 125 - 140 - 160 - 200 - 250 - 315 mm



An expert will advise you on the best solution to your problem!



K-FLEX® K-FIRE PIPE WRAP



K-FLEX[®] K-FIRE PIPE WRAP is a pipe closure device used to form penetration seals where combustible pipes and insulated metal pipes penetrate walls and floors. K-FLEX[®] K-FIRE PIPE WRAP is supplied in bags sized according to pipe diameter. The wrap is wrapped around the pipe and pushed into the aperture in the separating element or cast in with K-FLEX[®] K-FIRE EX MORTAR.

APPROVALS

- CE Marked 0843–CPR–0411
- ETA 17-1049
- ETAG 026-2 (2011) according EN 1366-3 Penetration Seals

K-FLEX [®] K-FIRE PIPE WRAP > RANG	ЭЕ
🐨 Type 🐨	Thicknesses
K-FLEX [®] K-FIRE PIPE WRAP - precutted strip	55 - 82 - 110 - 125 - 160 - 200 - 250 - 315 mm
K-FLEX® K-FIRE PIPE WRAP - roll	25 m x 50 mm or 25 m x 75 mm

K-FLEX[®] K-FIRE BOARD



K-FLEX[®] K-FIRE BORD anti-icing board is made of mineral wool with a density of 160 kg/m³, covered on one or both sides with K-FLEX[®] K-FIRE COATING acrylic paint. It is used for fire-proof sealing, in walls and ceilings, passages of steel and copper pipes and combined passes with plastic pipes, cables and ventilation ducts.

- CE Marked 843-CPR-406
- ETA 17-1022
- ETAG 026-3 (2011)

K-FLEX® K-FIRE BOARD > RANGE		
⊸ Туре ⊸		
K-FLEX® K-FIRE BOARD - 1200 x 600	50 - 60 mm	1S Smooth
K-FLEX® K-FIRE BOARD - 1200 x 600	60 mm	2S Smooth
K-FLEX [®] K-FIRE BOARD - 1200 x 600	50 - 60 mm	1S Ribbed
K-FLEX® K-FIRE BOARD - 1200 x 600	50 - 60 mm	2S Ribbed

K-FLEX[®] K-FIRE SEALANT A PLUS



K-FLEX[®] K-FIRE SEALANT A PLUS is a fire resistant water based acoustic acrylic sealant, designed for internal use with fire and smoke resisting gaps and service penetrating capability. K-FIRE SEALANT A PLUS can be used where a low movement fire resistant and/or acoustic joint is required. K-FIRE SEALANT A PLUS provides good adhesion to most common building materials like brick, concrete, plasterboard, wood etc.

APPROVALS

- CE Marked 0843-CPR-0284
- ETA 15-0818
- > ETAG 026-2 (2011) according EN 1366-3 Penetration Seals
- ETA 15-0795
- ETAG 026-3 (2011) according EN 1366-4 Linear Joint and Gap Seals

K-FLEX [®] K-FIRE SEALANT A PLUS	RANGE	
⊸ Type ⊸	- Contents -	- Colors -
K-FLEX® K-FIRE SEALANT A PLUS - cartridge	310 ml	White

K-FLEX[®] K-FIRE SEALANT A



K-FLEX[®] K-FIRE SEALANT A is a one part, acrylic emulsion that intumesces and forms a char when exposed to the heat of a fire, preventing the passage of fire and smoke In normal use, it will maintain the sound reduction index of a structure. It does not emit halogenated by-products under fire conditions, and does not contain any hazardous raw material. It has good, unprimed, adhesion to a wide variety of common building substrates, and it is designed to work in combination with K-FLEX[®] K-FIRE BATT to prevent the passage of fire and smoke between compartimentations whilst still allowing the installation of services.

- CE Marked 1121-CPR-JA5095
- ETA 15-0777
- ETAG 026-2 (2011) according EN 1366-3 Penetration Seals
- ETA 15-0776
- ETAG 026-3 (2011) according EN 1366-4 Linear Joint and Gap SealsIs

K-FLEX [®] K-FIRE SEALANT A > RANG	GE	
👻 Type 👻	- Contents -	- Colors -
K-FLEX® K-FIRE SEALANT A - cartridge	310 ml	White or grey



K-FLEX® K-FIRE SEALANT S PLUS



A one part, fire resistant, neutral curing, silicone sealant to be used in situations where a flexible fire resistant joint is required. Excellent adhesion to most building substrates, including porous materials, without the use of primers. Good durability.

APPROVALS

- CE Marked 0843–CPR–0285
- ETA 15-0819
- ETAG 026-2 (2011) according EN 1366-3 Penetration Seals
- ETA 15-0817
- ETAG 026-3 (2011) according EN 1366-4 Linear Joint and Gap Seals

K-FLEX [®] K-FIRE SEALANT S PLUS	RANGE	
- Type -	- Contents -	- Colors -
K-FLEX® K-FIRE SEALANT S PLUS - cartridge	310 ml	White or grey

K-FLEX[®] K-FIRE ACRYLIC



K-FLEX® K-FIRE ACRYLIC is an one part acrylic sealant designed to prevent the spread of fire and smoke through joints and openings in fire rated walls and floors including openings formed around building service penetrations. K-FLEX® K-FIRE ACRYLIC will also maintain the acoustic design performance in walls and floors. K-FLEX® K-FIRE ACRYLIC cures when it is subjected to atmospheric conditions and retain a certain elasticity for joint movement. Under fire exposure, K-FLEX® K-FIRE ACRYLIC creates a robust fire seal creating a durable intumescent char. Thermal activation takes place at about 180°C when the material will expand (intumesce) and prevent the passage of fire and smoke for periods up to and beyond 4 hours.

- CE Marked 0843-CPR-0408
- ETA 17/1048 and 17/1047
- > ETAG 026-2 (2011) according EN 1366-3 Penetration Seals
- AgBB and EC1Plus for Low VOC

K-FLEX [®] K-FIRE ACRYLIC > RANGE		
⊸ Туре ⊸		- Colors -
K-FLEX® K-FIRE ACRYLIC - cartridge	310 ml	White
K-FLEX® K-FIRE ACRYLIC - sausage	600 ml	White

K-FLEX[®] ► K-FIRE

K-FLEX® K-FIRE HP SEALANT



K-FLEX® K-FIRE HP SEALANT is a is an intumescent pressure sealant which, when exposed to fire, expands protecting penetrations including cables, cable bunches, cable trays, plastic and metallic pipes. K-FLEX® K-FIRE HP SEALANT maintains the integrity and insulation performance of the seal through masonry and plasterboard. The sealant is intended for use in service penetrations through walls and floors where fire integrity and insulation needs to be preserved. Under fire conditions the product swells and exerts pressure to the surrounding substrates leading to closure of the penetration.

- CE Marked 1121-CPR-JA5097
- ETA 15-0778
- > ETAG 026-2 (2011) according EN 1366-3 Penetration Seals

K-FLEX® K-FIRE HP SEALANT > RA	NGE	
⊸ Туре ⊸		- Colors -
K-FLEX® K-FIRE HP SEALANTS - cartridge	310 ml	Grey





K-FLEX[®] K-FIRE MORTAR



A single pack material that, when mixed with water, provides a fire resistant and smoke seal able to reinstate fire resistance of separating walls and floors when penetrated by building services.

APPROVALS

- CE Marked 0843–CPR–0277
- ETA 15-0757
- ETAG 026-2 (2011) according EN 1366-3 Penetration Seals

K-FLEX [®] K-FIRE MORTAR > RANGE	
⊸ Туре ⊸	- Contents -
K-FLEX [®] K-FIRE MORTAR - bag	20 - 10 kg

K-FLEX[®] K-FIRE EX MORTAR



K-FLEX® K-FIRE EX MORTAR is a gypsum based mortar material, used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetrations of multiple services. When mixed with water, the compounds form a highly thermally insulating fire sealing compound to prevent the spread of fire and smoke through openings in fire rated walls and floors, including openings formed around building service penetrations. K-FLEX® K-FIRE EX MORTAR will also maintain the acoustic design performance in walls and floors. K-FLEX® K-FIRE EX MORTAR expands approx. 1% by hydraulic action during curing ensuring a very tight seal around the service penetrations and the surrounding opening apertures.

- CE Marked 0843-CPR-0412
- ETA 17-1046
- ETAG 026-2 (2011) according EN 1366-3 Penetration Seals

K-FLEX [®] K-FIRE EX MORTAR > RANGE	
- Type -	- Contents -
K-FLEX® K-FIRE EX MORTAR - bag	20 lt

K-FLEX® ▶ K-FIRE

K-FLEX[®] K-FIRE COATING



K-FLEX[®] K-FIRE COATING is a special developed paint that prevents smoke and fire from entering. Provides up to 120 minutes fire resistance. The product is resistant to weather conditions. The product should be used together with mineral wool density min 80 kg/m³. After drying it remains highly flexible so that the structure moves building.

APPROVALS

- CE Marked 843-CPR-0407
- ETA 17/1021
- ETAG 026-3 (2011)

K-FIRE Board = mineral wool painted by K-FIRE coating; Board ETA 17/1022

K-FLEX [®] K-FIRE COATING ▶ RANGE	
⊸ Туре ⊸	- Contents -
K-FLEX® K-FIRE COATING	8 lt 10,4 / 11,2 kg

K-FLEX® K-FIRE FLEXI COAT



K-FLEX[®] K-FIRE FLEXI COAT is an acrylic based sealant used to form linear gap seals where gaps are present in floor constructions and to create seals where penetrations go through walls. The K-FIRE FLEXI COAT is supplied in liquid form contained within 10 kg or 20 kg tubes. K-FIRE FLEXI COAT is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising mineral wool as a backing material.

- CE Marked 1121-CPR-JA5117
- ETA 17/1016
- ETAG 026-3 (2011)

K-FLEX [®] K-FIRE FLEXI COAT > RANGE	
⊸ Туре ⊸	- Contents -
K-FLEX® K-FIRE FLEXI COAT	10 -20 kg





FIRESTOPPING Solutions

K-FLEX® K-BOX








K-FLEX[®] K-BOX

 Preformed insulation boxes suitable for insulation of valves, filters, flanges and other elements in a piping system



K-FLEX[®] ► K-BOX

TECHNICAL DATA



K-FLEX® K-BOX > TECHNICAL DATA								
→ Property →								
Insulation material	K-FLEX® ST							
Temperature range	K-BOX removable: from 0°C to +85°C K-BOX glued: from -45°C to +85°C							
Storage	From +10°C to +30°C							
Thermal conductivity λ W/(m•K)	0,036 W/mK at 0°C							
Permeability µ	7000							
Corrosion properties	pH neutral (7±0,5)							
Resistance to mould, fungi and bacteria	Excellent							
Odour	Neutral							
Colour	Black							
Use	Internal							
	K-FLEX® reserves the right to change data and technical requirements without notice.							

GENERAL INFORMATION

Removable version

K-FLEX® K-BOX are available in removable or non removable versions.



Service temperature range: from 0°C to +85°C

Non Jacketing, glued version



Service temperature range: from -45°C to +85°C





Each piece has been specifically designed in order to perfectly match the equipment to be insulated. The elastomeric closed cell structure offers a very low thermal conductivity combined with excellent resistance to water vapor diffusion.

- > Time savings during equipment maintenance.
- Easy and quick to use.
- Quality finish.
- Made in the EU.

K-FLEX® K-BOX are available in removable or non removable versions. For different sizes and models, please contact us.

K-FLEX® K-BOX > RANGE									
	🕶 Fittings 💌	 Thicknesses 	- Diameters -						
K-FLEX [®] K-BOX - Removable	Threaded	from 19 to 40 mm	from 22 to 76 mm						
	Flanged	from 32 to 50 mm	from 48 to 168 mm						
K-FLEX® K-BOX - Glued	Threaded	from 19 to 40 mm	from 22 to 76 mm						
	Flanged	from 32 to 50 mm	from 48 to 168 mm						

ACCESSORIES







K-FLEX® ALU Tape

K-FLEX® ALU Black Tape

K-FLEX[®] Anticondensation Tape



Adhesives

K-FLEX® K-JACKET

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K-FLEX® K-JACKET

 Removable and reausable tailor made system for thermal insulation of special parts and complex geometry for industrial applications

New!

K-FLEX[®] ▶ K-JACKET



Thermal insulation K-FLEX® K-JACKET is a removable multifunctional product made of heat-insulating materials, technical cover fabrics and ergonomic fastening accessories for convenient and quick access to equipment requiring regular inspection and maintenance. Main fields of application: objects of energy, chemical, food, oil refining industry, and also transportation of oil and gas, shipbuilding and other fields.

USES OF INSULATION

- Flange connection
- Valves with electric heating
- Regulators
- Ball plug valve
- Pressure sensor Þ
- Ball plug valves with electric heating

- Shutters
- Heat exchangers
- Valves
- Level gauges
- Filters
- Other equipment



- Grades vibration fluctuations and decrease the industrial noise
- Provides safety for maintenance personnel

Makes individually for needs of each client to technical features of the isolated equipment. Delivery of removable covers K-FLEX® JACKET includes: development and agreement of the sketch layout of the product; development of technical and commercial proposal; actual measurements of equipment; development of patterns and blueprints; making; quality control of the output product and delivery.

OPTIONS OF PRODUCT

- Insulation for indoor use ▶
- Insulation for outdoor use •
- Insulation with heating cable
- Insulation for use in temperatires up to 900 °C
- Versions: G1(Russia) lowly flammable and NG (Russia) nonflammable



Valve case DU 200



TECHNICAL FABRICS FOR MAKING OF THE COVER LAYER

- K-FLEX[®] SIL CLAD

 fiberglass with silicone impregnation
- Silica fabric with silicone impregnation
- Fiberglass with PVC impregnation

▶ FABRICS								
 Indications 	- K-FLEX® SIL CLAD -	👻 Silica fabric 👻	👻 Fiberglass 👻					
Maximum working temperature	up to +250 °C	up to +1000 °C	up to +80 °C					
Using in sub zero temperatures	up to -60 °C	-	-					
Outdoor using	+	-	-					
Fabric flammability group	G1 (Russia)	NG (Russia)	G1 (Russia)					
Wetness resistance	+	-	-					
Oil and oil producs resistance	+	-	-					
K-FLEX® reserves the right to change data and technical requirements without notice.								



FILLERS FOR THE MAIN THERMAL INSULATION LAYER			
	FILLERS FOR	THE MAIN THER	RMAL INSULATION LAYER

- Foam rubber K-FLEX[®] ST
- Foam rubber K-FLEX[®] ENERGO PLUS

- Basalt wool
- Silica fiber insulation





FASTENING HARDWARE FOR FIXING

- Para-aramid thread with metal core
- Multifilament belts

- Premium class contact tapes
- Spring buckles





K-FLEX® TAPES

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K-FLEX® TAPES

> The difference is in the details



K-FLEX® ALU AA CW TAPE

Aluminum Foil Tape



High tensile strength aluminum foil, combined with cold weather solvent acrylic adhesive, protected by an easy-release silicone release paper or silicone coated blue polyethylene liner. Cold Weather version (low temperatures).

MEASUREMENTS

Thicknesses: 25 - 30 - 40 Micron Length: 50 m Widths: 50 - 75 - 100 mm

FEATURES

- > Aluminum foil provides excellent reflection of both heat and light.
- High quality adhesive with strong adhesion offers a permanent seal and bond on Foil-Scrim-Kraft Facing joints and seams in HVAC ductwork applications.
- Good resistance to aging, both indoors and outdoors.
- > Low moisture vapor transmission rate offers excellent performance.

APPLICATIONS

HVAC industry for joining and sealing Foil-Scrim-Kraft Facing laminated ductwrap / duct board joints and seams; joining and sealing flexible air duct seams and connections. General purpose holding, patching, sealing and masking applications – indoors and outdoors.

STORAGE & SHELF LIFE

12 months when stored at 21°C (70°F) / 50% relative humidity out of direct sunlight.

SURFACE PREPARATION

It is essential, as with all pressure-sensitive tapes, that the surface to which the tape is applied must be clean, dry, free of grease, oil or other contaminants.

PRODUCT USE

It is essential that the user evaluate the products to determine whether it is fit for a particular purpose and user's method of application. Good results will be obtained when applied to a clean, dry surface with a suitable pressure on products between +10 \sim +40°C (+50 \sim +105 °F).

K-FLEX® ALU AA CW TAPE > TECHNICAL DATA											
🕶 Property 🖵	K-FLEX® ALU – AA 130 CW –										
Backing thickness	25 Micron	30 Micron	40 Micron	PSTC-133 / ASTM D 3652							
Total thickness	60 Micron	70 Micron	80 Micron	PSTC-133 / ASTM D 3652							
Adhesion to steel	15 N/25mm	15 N/25mm	15 N/25mm	PSTC-101 / ASTM D 3330							
Rolling ball tack test	5 cm	5 cm	5 cm	PSTC-6 / ASTM D 3121							
Tensile strength	40 N/25mm	40 N/25mm	40 N/25mm	PSTC-131 / ASTM D 3759							
Elongation	3.0 %	3.0 %	3.0 %	PSTC-131 / ASTM D 3759							
Service temperature	-35 ~ +120 °C	-35 ~ +120 °C	-35 ~ +120 °C								

The physical properties of the products shown above are obtained from test methods defined by Technical Standards Authorities, Quality Assurance and Technical Service Departments and do not represent a guarantee of product performance. Individual tapes may vary from these parameters and in all applications the end user should determine whether the product is fit for a particular purpose and is suitable for the user's method of application before use.



K-FLEX® ALU AR CW TAPE

Foil-Scrim Tape



Foil-Scrim backing, combined with cold weather solvent acrylic adhesive, protected by an easy-release silicone release paper. Cold Weather version (low temperatures).

MEASUREMENTS

Thicknesses: 43 - 50 Micron Length: 50 m Widths: 50 - 75 - 100 mm

FEATURES

- Foil-Scrim provides excellent reflection of both heat and light.
- High quality adhesive with strong adhesion and holding power offers reliable and durable Foil-Scrim Facing for joints and seams sealing in HVAC and ductwork applications.
- Low moisture vapor transmission rate makes K-FLEX® ALU AR 107 an excellent vapor barrier.
- Service Temperature range from -30 ~ +120 °C (-22~ +248 °F).

APPLICATIONS

HVAC industry for joining and sealing Foil-Scrim Facing laminated blankets / duct board / pipe section joints and seams; joining and sealing flexible air duct seams and connections. May also be used for other industrial uses requiring a tape with these characteristics and benefits.

STORAGE & SHELF LIFE

12 months when stored at 21°C (70°F) / 50% relative humidity out of direct sunlight

SURFACE PREPARATION

It is essential, as with all pressure-sensitive tapes, that the surface to which the tape is applied must be clean, dry, free of grease, oil or other contaminants.

PRODUCT USE

It is essential that the user evaluate the products to determine whether it is fit for a particular purpose and user's method of application. Good results will be obtained when applied to a clean, dry surface with a suitable pressure on products between +10 \sim +40°C (+50 \sim +105 °F).

K-FLEX® ALU AR CW TAPE > TECHNICAL DATA										
- Property -	K-FLEX® ALU ➡ AR 107 CW TAPE ➡	K-FLEX® ALU ➡ AR 107 PLUS CW TAPE ➡	👻 Test method 👻							
Backing thickness	43 Micron	50 Micron	PSTC-133 / ASTM D 3652							
Total thickness	83 Micron	90 Micron	PSTC-133 / ASTM D 3652							
Adhesion to steel	15 N/25mm	15 N/25mm	PSTC-101 / ASTM D 3330							
Rolling ball tack test	5 cm	5 cm	PSTC-6 / ASTM D 3121							
Tensile strength	100 N/25mm	120 N/25mm	PSTC-131 / ASTM D 3759							
Elongation	3.0%	3.0%	PSTC-131 / ASTM D 3759							
Service temperature	-30 ~ +120 °C	-30 ~ +120 °C								

The physical properties of the products shown above are obtained from test methods defined by Technical Standards Authorities, Quality Assurance and Technical Service Departments and do not represent a guarantee of product performance. Individual tapes may vary from these parameters and in all applications the end user should determine whether the product is fit for a particular purpose and is suitable for the user's method of application before use.

K-FLEX® ALU BLACK CW TAPE

Coloured Aluminum Foil Tape



Black or white lacquered 30 micron (1.2 mil) aluminum foil, combined with cold weather solvent acrylic adhesive, protected by an easy-release silicone release paper or silicone coated blue polyethylene liner. Cold Weather version (low temperatures).

MEASUREMENTS

Thickness: 30 Micron Length: 50 m Width: 50 mm

FEATURES

- Lacquered aluminum foil.
- Good aging resistance, both indoors and outdoors.
- > Low moisture vapor transmission rate offers excellent sealing and patching performance.

APPLICATIONS

HVAC industry for joining and sealing black lacquered Foil-Scrim-Kraft Facing laminated ductwrap / duct board / pipe insulation's joints and seams. May also be used for other industrial uses requiring a tape with these characteristics and benefits.

STORAGE & SHELF LIFE

12 months when stored at 21°C (70°F) / 50% relative humidity out of direct sunlight.

SURFACE PREPARATION

It is essential, as with all pressure-sensitive tapes, that the surface to which the tape is applied must be clean, dry, free of grease, oil or other contaminants.

PRODUCT USE

It is essential that the user evaluate the products to determine whether it is fit for a particular purpose and user's method of application. Good results will be obtained when applied to a clean, dry surface with a suitable pressure on products between +10 \sim +40°C (+50 \sim +105 °F).

K-FLEX® ALU	BLACK CW TAPE > TECHNICAL DATA	
- Property -	- Value -	
Backing thickness	30 Microns	PSTC-133 / ASTM D 3652
Total thickness	70 Microns	PSTC-133 / ASTM D 3652
Adhesion to steel	15 N/25mm	PSTC-101 / ASTM D 3330
Rolling ball tack test	5 cm	PSTC-6 / ASTM D 3121
Tensile strength	45 N/25mm	PSTC-131 / ASTM D 3759
Elongation	3.0 %	PSTC-131 / ASTM D 3759
Service temperature	-35 ~ +120 °C	

The physical properties of the products shown above are obtained from test methods defined by Technical Standards Authorities, Quality Assurance and Technical Service Departments and do not represent a guarantee of product performance. Individual tapes may vary from these parameters and in all applications the end user should determine whether the product is fit for a particular purpose and is suitable for the user's method of application before use. Available also in **ALU WHITE** version.



K-FLEX® CLOTH DUCT TAPE



High Quality PE Duct Tape, adopts high grade fabric cloth with color polyethylene covering, coats improved synthetic rubberresin adhesive coated. It enjoys fast stick, straight and smooth tear, good tensile strength, excellent moisture resistant. It conforms well to irregular surface. It is a good choice for bundling, heavy carton packing, general maintenance, pipe wrapping, carpet fixing, air-conditioning duct's seam and joint sealing etc.

MEASUREMENTS

Thicknesses: 160 - 180 Micron Length: 50 m Widths: 50 - 75 - 100 mm

STORAGE & SHELF LIFE

12 months when stored at 21°C (70°F) / 50% relative humidity out of direct sunlight.

PRODUCT USE

It is essential that the user evaluate the products to determine whether it is fit for a particular purpose and user's method of application. Good results will be obtained when applied to a clean, dry surface with a suitable pressure on products between +10 \sim +40°C (+50 \sim +105 °F).

K-FLEX® CLOTH DUCT TAPE > TECHNICAL DATA									
- Property -	K-FLEX® ➡ CLOTH DUCT 1604H ➡	K-FLEX® ➡ CLOTH DUCT 1804H ➡	K-FLEX® ➡ CLOTH DUCT 1805H ➡						
Mesh	35	35	35						
Colour	Grey	Grey, Black	Grey						
Thickness	160 Microns	180 Microns	180 Microns						
Adhesion	16 N/25mm	18 N/25mm	18 N/25mm						
Tensile	75 N/25mm	80 N/25mm	85 N/25mm						
Elongation	12 %	12 %	12 %						
Service temp.	-20 ~ +60 °C	-20 ~ +60 °C	-20 ~ +60 °C						

The physical properties of the products shown above are obtained from test methods defined by Technical Standards Authorities, Quality Assurance and Technical Service Departments and do not represent a guarantee of product performance. Individual tapes may vary from these parameters and in all applications the end user should determine whether the product is fit for a particular purpose and is suitable for the user's method of application before use.

 $\ensuremath{\textbf{K-FLEX}}\xspace^{\ensuremath{\textbf{v}}}$ reserves the right to change data and technical requirements without notice.

K-FLEX® ACCESSORIES

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K-FLEX® ACCESSORIES

Complete range of solution for the installers



K-FLEX[®] GUTTAGENA PVC BAND



Twice the thickness compared to the previous range, it is ideal for finishing PVC sheet insulation coverings (eg. K-FLEX[®] PACK RS 590). The GUTTAGENA band is available in one colour, light grey, and is matt finished.

MEASUREMENTS

Thicknesses: 0,2 mm Lengths: 50 m Widths: 5 - 10 cm

K-FLEX® VINYL BAND



Flexible, robust and resistant to external agents, used for covering pipes insulated with elastomeric insulation or other materials. The small roll sizes allow for applications even in tight and narrow spaces. The wide range of colours available allows for a correct colour-coding of pipes, in compliance with the law.

COLOURS

red green blue grey (K-Pack RS 590 type) light grey black

MEASUREMENTS

Thicknesses: 0,1 mm Lengths: 50 - 25 m Width: 10 cm



K-FLEX[®] PVC 200 TYPE W ELBOWS



90° single-piece elbows in laminated plastic. Apart from enhancing the overall appearance of the insulated part, they increase protection against impact.

APPLICATION

After having taken the measurements and having chosen the suitable type of elbow, place it onto the part to be covered. The internal borders should overlap to allow for fastening with the appropriate plastic rivets (see the section "components: fixing products").

MEASUREMENTS

Thicknesses mm: 20, 25, 30, 40, 50, 70, 80, 90 Tube diameters mm: from 17 to 114; inches: from 3/8" to 4".







K-FLEX[®] PACK RS 590



A rigid PVC self-rolling sheet with a smooth grey surface. The sheet adheres perfectly to all cylindrical pre-insulated surfaces. Light and easy to use, this non-drip self-extinguishing product protects the insulation as well as enhancing overall external appearance. To maintain the product features intact, in the winter season the rolls should be stocked at room temperature for 24 hours prior to their use.

USE

It is used as a protective covering and to enhance the external appearance of large and small cylindrical pipes insulated with elastomeric material, glass wool mats, rock wool mats, polyurethane and polystyrene pipe coverings.

APPLICATION

- Measure and cut a section of the PVC sheet based on the circumference of the insulation, leaving an excess of a few centimeters for overlapping the joining edges.
- Wrap the sheet around the insulation
- > Seal the borders with plastic rivets (see reference in the section "components: fixing products").

K-FLEX® PACK RS 590 > TECHNICAL DATA								
- Property -	⊸ Value ⊸							
Base	Rigid PVC							
Colour	Standard light grey							
Packaging	Rolls							
Sheet thickness	0,30 mm ÷ 0,35 mm							
Temperature range	From -25 °C to +70 °C							
Thermal conductivity $\boldsymbol{\lambda}$	0,16 W/(m∙K)							
Permeability to vapour $\boldsymbol{\mu}$	1,0 gm ² 24h Pa							
	K-FLEX® reserves the right to change data and technical requirements without notice.							

K-FLEX® > ACCESSORIES

K-FLEX[®] PVC TYPE SE 90° ELBOWS



90° single-piece elbows in laminated plastic. Apart from enhancing the overall appearance of the insulated part, they increase protection against impact.

APPLICATION

After having taken the measurements and having chosen the suitable type of elbow, place it onto the part to be covered. The internal borders should overlap to allow for fastening with the appropriate plastic rivets (see the section "components: fixing products").

MEASUREMENTS

Thicknesses mm: 20, 25, 30, 40, 50, 70, 80, 90 Tube diameters mm: from 17 to 114; inches: from 3/8" to 4"



K-FLEX® PVC TYPE T



Laminated plastic PVC singlepiece T sections. Ideal for protecting insulated pipes of medium and large diameters.

APPLICATION

The external diameter of the PVC T section also includes the thickness of the insulation.

E.g.: to cover a pipe with a 76 mm Ø

(A-B), and a 32 mm thick insulation (C), a 140 x 140 type should be ordered.

MEASUREMENTS

External diameter (main./branch.) mm: from 52/52 to 245/245 from 67/61 to 108/61 from 108/67 to 245/218





K-FLEX[®] ALU EMBOSSED R 200



Self-wrapping embossed protection sheet in rolls of 99.5% pure aluminium. Sheet thickness 0.1 and 0.2 mm Supplied in 1 m wide rolls

PROPERTIES

The product grips perfectly to all cylidrical pre-insulated surfaces, it is light, easy to handle, protects the insulation and enhances the overall appearance. It is incombustible.

POSSIBILITIES OF USE

Used as a protective covering, it also improves the overall appearance of small and large cylindrical pipes insulated with elastomeric, fibre-glass mattresses, mineral wool, polyeurothane and polystyrene.

APPLICATION

If not already pre-cut, cut the sheet to the required circumference. Wrap the sheet around the insulation, seal the longitudinal edges with adhesive foil tape and plastic rivets.

K-FLEX® BLECH MT-CU



99.5% PURE ALUMINIUM SHELL and 90° ELBOWS with a thickness ranging from 0,6 and 0,8. MT 500: male and female ball swaged edges calendered tube, with reinforced length-wise drilled sealing system. Length: 1000mm

CU 501: 90° preformed segmented elbows with female-female ball swaged edges.

APPLICATION ON TUBES

The MT 500 tube diameter is slightly greater than that of the corresponding CU 501 elbow, which makes the connection between the two parts much easier.



The edges of the joints are fixed together by using the short screws in the holes provided.

APPLICATION OF CU501 ELBOWS

- Open the segments of the elbow and place them around the insulated pipe.
- After the sections have been correctly positioned, seal the elbow with short screws using the holes provided.
- Connect the MT 500 tube by attaching male edge to female edge.













K-FLEX® ST ANTICONDENSATION TAPE



Highly flexible closed cell elastomeric foam (FEF) suitable for hot and cold thermal insulation, featuring a combination of low thermal conductivity, high water vapour diffusion resistance and low flame spread.

MEASUREMENTS

Thickness: 3 mm Lengths:10 - 15 m Heights: 15 - 25 - 30 - 50 - 75 - 100 mm

APPLICATIONS

Pipes, ducts, tanks, applied for refrigeration, air conditioning, heating and plumbing, pipe fittings and water ducts, industrial applications for energy saving and/or condensation prevention purposes.

K-FLEX® ST ANTICONDENSATION TAPE > TECHNICAL DATA											
- Property -		- Value - T									🖵 Test Method 🖵
Maximum service temperature	+85°C	+85°C									
Minimum service temperature	-40°C										
Water vapour diffusion resistance	$\mu \geq 7 000$										EN 12086
Water absorption	<0.1 %										EN 13472
Leachable chlorides	<500 ppn When test		th DIN1988/3	7, leachable (chlorides <0	.05%					EN 13468
Ph	Neutral (7	±0,5)									EN 13468
Reaction to fire	Euroclass	B-s2, d0									EN 13501
Dimensional tolerances	as per EN	14304									
Ecological data	Without C	Without CFCs and HCFCs									
Medium temperature	-30°C	-30°C -20°C -10°C 0°C +10°C +20°C +30°C +40°C +50°C +70°C									
Thermal conductivity [W/(m °K)]	0.030	0.031	0.032	0.033	0.034	0.035	0.036	0.037	0.038	0.042	EN 13787 - EN12667
						K-F	LEX® reserves	the right to ch	ange data and	l technical requ	irements without notice.



K-FLEX[®] SOLAR HT TAPE



Flexible closed cell elastomeric foam (EPDM) suitable for hot thermal insulation, specially designed to suit highed temperature sapplications.

MEASUREMENTS

Thickness: 3 mm Length:15 m Height: 50 mm

APPLICATIONS

Ducts and pipes, specially designed for solar systems and high temperatures.

K-FLEX® SOLAR HT TAPE > TECHNICAL DATA											
- Property -	- Value - Test Method -										
Maximum service temperature	+85°C										
Minimum service temperature	-40°C										
Water vapour diffusion resistance	NPD									EN 12086	
Water absorption	<0.1 %									EN 13472	
Leachable chlorides	<500 ppn When test		th DIN1988/7	7, leachable o	chlorides <0.	.05%				EN 13468	
Ph	Neutral (7	±0,5)								EN 13468	
Reaction to fire	Euroclass	E								EN 13501	
Dimensional tolerances	as per EN	14304									
Ecological data	Without C	FCs and HCF	Cs								
Medium temperature	-30°C	-20°C	-10°C	0°C	+10°C	+20°C	+30°C	+40°C	+50°C		
Thermal conductivity [W/(m °K)]	0.037	0.038	0.039	0.040	0.041	0.042	0.043	0.044	0.044	EN 13787 - EN12667	
		K-FLEX® reserves the right to change data and technical requirements without notice.									

K-FLEX® ECO ANTICONDENSATION TAPE



Highly flexible closed cell elastomeric foam (FEF) suitable for hot and cold thermal insulation, free from halogenated flame retarders and halogenated ingredients, featuring a low toxicity in case of fire.

MEASUREMENTS

Thickness: 3 mm Length:15 m Height: 50 mm

APPLICATIONS

Pipes, ducts, tanks, applied for refrigeration, air conditioning, heating and plumbing, pipe fittings and water ducts, industrial applications for energy saving and/or condensation prevention purposes.

K-FLEX® ECO ANTICONDENSATION TAPE > TECHNICAL DATA											
- Property -	- Value -									🕶 Test Method 🛥	
Maximum service temperature	+85°C	+85°C									
Minimum service temperature	-40°C										
Water vapour diffusion resistance	$\mu \geq 3 \ 000$										EN 12086
Water absorption	<0.1 %										EN 13472
Leachable chlorides	<500 ppm When test		th DIN1988/	7, leachable d	chlorides <0	.05%					EN 13468
Ph	Neutral (7	±0,5)									EN 13468
Reaction to fire	Euroclass	E									EN 13501
Dimensional tolerances	as per EN	14304									
Ecological data	Without Cl	Without CFCs and HCFCs									
Medium temperature	-30°C	-20°C	-10°C	0°C	+10°C	+20°C	+30°C	+40°C	+50°C	+70°C	
Thermal conductivity [W/(m °K)]	0.035	0.036	0.037	0.038	0.039	0.040	0.041	0.042	0.043	0.044	EN 13787 - EN12667
						K-F	LEX® reserves	the right to ch	ange data and	l technical requ	irements without notice.



K-FLEX[®] COLOR ANTICONDENSATION TAPE



Highly flexible closed cell elastomeric foam (FEF) protected by a layer of specially designed acrylic paint available in different colours.

MEASUREMENTS

Thicknesses: 3 - 6 mm Lengths:7,5 - 15 m Heights: 50 - 100 mm

APPLICATIONS

Pipes, ducts, tanks, applied for air conditioning, heating and plumbing, fittings and accessories.

K-FLEX [®] COLOR	ANTICONDENSATION TAPE > TECHNICAL DATA	
👻 UV stability 👻	⊸ Value ⊸	🕶 Test Method 🗣
Weatherometer	> 2000 Hours	DIN 53231
Desert exposure	> 2 Years	ASTM G 7-97
Total weight approx.	50 g/m ²	EN 12086
Thickness	45 μ	
Reaction to fire with K-FLEX® ST	Euroclass C-s3, d0	
Reaction to fire with K-FLEX [®] ECO	Euroclass E	
Reaction to fire with K-FLEX® SOLAR HT	Euroclass E	
	K-FLEX® reserves the right to change data and technical	requirements without notice.

COLOR RANGE

O RAL 9002 white - Colour code G1

RAL 9011 black - Colour code NO

RAL 5012 blue - Colour code B0

RAL 7035 grey - Colour code GO

RAL 6032 green - Colour code **V0**

HAL 9011 Black - Colour Code

RAL 3000 red - Colour code R0

K-FLEX[®] BITUMINOUS CONGLOMERATE TAPE



This product was formulated to provide insulation and to prevent condensation on pipes, fittings, and tubings used in heating, air conditioning, refrigeration, and plumbing.

MEASUREMENTS

Thickness: 3 mm Lengths:9 - 15 m Height: 50 mm

COMPOSITION

This product is a polymer-based material containing butyl rubber, asphalt, and granulated cork (55% by volume). It contains no fibers.

DETAILS

This product adheres to most clean, dry surfaces and to itself, making it possible to apply more than one layer without adding fasteners or adhesives. It is sufficiently soft and pliable to be molded around most fittings and connections. The material retains its flexibility and adhesion after prolonged exposure to UV and over a service temperature range of -20 °F to 190 °F (-29 °C to 88 °C). It is black in colour and has a grainy, rubber-like consistency.

STORAGE & SHELF LIFE

Indefinite if stored under normal warehouse conditions.

K-FLEX® BITUMINOUS CONGLOMERATE TAPE > TECHNICAL DATA					
- Property -	→ Value →		🕶 Test Method 💌		
Composition	Select grades of ground virgin cork and synthetic elastomeric materia	ls.			
Color	Black		ASTM D1729		
Odor	Imparts no odor, can be used without danger of contamination.				
Service Temperature	From -30°C to +100°C				
% Solids	>99% by weight		ASTM C771		
Specic Gravity	$0.99 \pm 0.05 \text{ g/cm}^3$		ASTM D297		
Tensile Yield	2,688 bar		ASTM C907		
Elongation	>2 inches		TP-019		
	,	C-FLEX® reserves the right to change data and technical requ	irements without notice.		



K-FLEX[®] PVC AT 070 SELF-ADHESIVE TAPE



A thin premium grade plasticized PVC film coated with an aggressive rubber based adhesive with good characteristics. It is highly conformable and unaffected by most chemicals and moisture. Meet ROHS, REACH requirement. It does not contain substances harmful to human body, such as lead and cadmium.

MEASUREMENTS

Length: 25 m Heights: 25 - 38 - 50 mm

APPLICATIONS

- Electric insulation below 600V
- Insulating wrapping of electric wires and cables
- Marking of electric wires and cables
- Can be used indoor and outdoor

K-FLEX® PVC AT 070 SELF-ADHESIVE TAPE > TECHNICAL DATA

- Property -		- Value -	🕶 Test Method 🛥
Total thickness	0.10 mm		ASTM-D-1000
Tensile strength	20 N/cm		ASTM-D-1000
Elongation at break	200%		ASTM-D-1000
Adhesion Strength: to steel to backing	1,5 N/cm 1,5 N/cm		ASTM-D-1000 ASTM-D-1000
Voltage resistance	600 V		UL510
Temperature resistance	80 °C		ASTM-D-1000
Flame resistance	<2 s		ASTM-D-1000
Content of Heavy Metal: Lead, Cadmium Mercury, Chromium Polybrominated biphenyl	<30 ppm <10 ppm <10 ppm		US EPA3052 US EPA3060A US EPA3540C
		K-FLEX® reserves the right to change data and technical requ	irements without notice.

K-FLEX® BUTYL TAPE



K-FLEX[®] Butyl Tape is a self-adhesive sealing tape consisting of a high-performance butyl rubber adhesive compound, protected by a reinforced aluminium film. K-FLEX[®] Butyl Tape is highly adhesive, even at low temperatures, to all common building materials. K-FLEX[®] Butyl Tape is highly resistant to ageing and UVrays. K-FLEX[®] Butyl Tape is available in various sizes for multipurpose applications.

MEASUREMENTS

Length:10 m Heights: 50 - 100 mm

FEATURES

- Tear-resistant
- Cold applied
- Excellent adhesion at low temperatures
- Waterproof and self-sealing
- Excellent heat stability
- Resistant to ageing and to UV-rays
- No oil migration
- Solvent-free

APPLICATIONS

Choose the most suitable width and metal finish of the sealing tape. Unroll the tape until the desired length is reached. Start removing the release liner that covers the adhesive part of the tape and position the sealing tape. Carry out a rollpressing to avoid entrapment of air bubbles. When connecting two tapes, use an overlap of at least 5 cm. Press with a roller or a cloth pad.

STORAGE & SHELF LIFE

The quality and the characteristics of the materials remain unaltered for a long period of time. However, it is recommended to use the product within 12 months from production date. The product must be stored in the original and unopened packaging in a dry and well ventilated place at a temperature between +5 °C and +40 °C. Storage above 50 °C may lead to difficulties in removing the release liner when applying. The product is not affected by frost.

SURFACE PREPARATION

The sealing tape must be applied to a clean, dry, smooth and dust-free surface. For an application between 0 °C and 5 °C, ensure that frost or condensation are absent on the surface. In case of porous supports it's advisable to stabilize the surface. No special tools are required to install this sealing tape.

PRODUCT USE

Sealing and joining materials such as glass, steel, Plexiglas, polycarbonate, wood, aluminium, PVC. K-FLEX[®] Butyl Tape can be used for the sealing of doors and windows frames, conservatories, gutters, piping and ducting. K-FLEX[®] Butyl Tape can also be applied in construction on canopies, roofs, chimneys and skylights.



K-FLEX® BUTYL TAPE > TECHNICAL DATA

- Property -	- Value -	🕶 Test Method 🛥
Film Type / Colour	Aluminium - PET	
Compound Type / Colour	Butyl Rubber Adhesive / Grey	
Standard Thicknesses	0.6 mm	
Tensile Strength	Long. > 150 N / 50 mm Tras. > 150 N / 50 mm	EN 12311-1
Elongation at Break	Long. > 20 % Tras. > 20 %	EN 12311-1
Solids	100%	
90° Peel Adhesion	≥ 90 N	ASTM D 1000
Probe Tack	≥ 8.0 N	ASTM D 2979
Vertical Flow	0 mm	ISO 7390
Application Temperature Range	0 °C / + 40 °C	
Service Temperature Range	- 30 °C / + 90 °C	
Test Reports	Flammability Classification: M1, Non-flammable, test by SNPE N°14647-09 (UNE 23727:1990, UNE 23721:1990, NFP 92501). Fire classification: E, test by MPA Stuttgart (EN ISO 11925-2, EN 13501-1). Permeability to Vapour: 1,29 e ⁻¹⁶ kg / (m.s.Pa) - μ = 1,53 e ⁺⁶ , test by CSTB CPM 11/260-33839 (NF EN 1931).	

The manufacturer disclaims all liability for product use and applications. Butyl sealants are plastic products. They possess no elastic recovery. Do not use for permanent fixing or in load bearing applications instead of an adhesive or a mechanical fixing. Butyl adhesive are sensitive to solvents. It is advisable to check the chemical compatibility of the butyl adhesive with the substrate adhesives.

K-FLEX® PE INSULATION TRIMMING



Self-adhesive closed-cell wired foam PE packing, used to cover the seal flange in air-conditioning ducts.

MEASUREMENTS

Thicknesses mm: 3 Length m: 20 Height mm: 15, 20, 25

K-FLEX[®] ADHESIVE DISPENSER



A useful accessory that controls flow and helps spread adhesives evenly on insulation surfaces, avoiding having to continuously dip the brush into the tin of adhesive. The adhesive correctly diluted, is manually pumped through the brush.

SPECIAL THINNER FOR K-FLEX® ADHESIVES



Before covering the surfaces to be insulated, it is advisable to clean them with the special K-FLEX[®] thinners which, thanks to its composition, is also suitable for use with K 414, K 420 or K 425 adhesives. Cleaning of all surfaces with the special K-FLEX[®] thinners also improves the performance of the adhesives. The special K-FLEX[®] thinners can be also used for cleaning brushes and spatulas used to spread the glue. Available in 1 litre tins.



K-FLEX® FASTENING PRODUCTS PLASTIC RIVETS, PUNCH AND K-FIX



Important for correctly fastening PVC and AL CLAD sheets. PLASTIC RIVETS: box of 100 WHITE and GREY rivets. PUNCH: straight/angular

K-FIX. Galvanized steel installation hangar spike with a 50x50 mm base. With adhesive and nonadhesive surface, with a 2,7 mm diameter stick pike, and a self-blocking 30 mm diameter disc.

It can be applied to flat metal surfaces for fastening insulation material in sheet or roll form (mineral wool, polyethylene, etc.). Strongly recommended for air-conditioning ducts.

TEMPERATURE RANGE

min/max +10 °C/ +80 °C. Supplied in boxes of 100 pieces. Length of pins - from 19 to 114 mm.

APPLICATIONS

- Punch holes along the overlap of the sheet, going through both layers.
- Insert the plastic rivets in the holes, pressing them firmly into the insulation layer.





INSTRUCTIONS FOR THE USE OF K-FIX SELF-ADHESIVE SUPPORTS NO. OF PIECES REQUIRED PER M2 AND NO. OF SUPPORTS REQUIRED

									1					
TYPE A:	INSULATION THICKNESS													
HORIZONTAL USE TYPE B:	20 MN	Л	25/30	мм	35/40	мм	50 MI	Л	60 MI	Л	80 MI	Л	100 N	IM
VERTICAL USE	TYPE A	TYPE B	TYPE A	TYPE B	TYPE A	TYPE B	TYPE A	TYPE B	TYPE A	TYPE B	TYPE A	TYPE B	TYPE A	TYPE B
20 kg/m³	8	4	8	4	8	4	8	4	8	4	8	4	10	6
30 kg/m³	8	4	8	4	8	4	8	4	10	6	10	6	10	6
40 kg/m³	8	4	8	4	8	4	10	6	10	6	10	6	12	8
50 kg/m³	8	4	8	4	10	6	10	6	10	6	12	8	14	10
80 kg/m³	8	4	10	6	10	6	12	8	12	8	14	10	16	12
100 kg/m³	10	6	10	6	12	8	14	10	14	10	16	12	20	16

K-FLEX® ADHESIVE



K-FLEX[®] K 414, K 420 and K 425 glues have been specifically designed for use with K-FLEX[®] elastomeric foam insulation material. The securely bonded surfaces and joints are resistant to ageing and atmospheric agents, and preserve the technical characteristics of the insulating material.

K 414 ADHESIVE in tins of: 0.5 - 0,8 - 2.6 litres

K 420 ADHESIVE in tins of: 0.25 - 1 - 2.6 litres

K 425 ADHESIVE in tins of: 0.85 litre (complete with glue activator)

INDICATED CONSUMPTION OF 1 LITRE OF ADHESIVE

💌 Tubes 💌	\checkmark Glued to the heads \checkmark	🕶 Glued lengthways 💌		
thickness 9 mm	every 1350 m	every 150 m		
thickness 13 mm	every 500 m	every 100 m		
thickness 19 mm	every 300 m	every 80 m		
thickness 25 mm	every 220 m	every 60 m		
thickness 32 mm	every 180 m	every 40 m		
thickness 40 mm	every 139 m	every 27 m		
SHEETS: 1 litres every 7m ² K-FLEX [®] does not accept responsability for different values to those indicated.				

K-FLEX[®] K-FINISH PAINT



K-FINISH is a water-based paint for coverings on internal and external installations insulated with K-FLEX[®] materials. With its polymerized acrilic base, it does not pollute and does not give off odours, and is particularly recommended for all indoor uses. Quick drying, it offers excellent protection. Coats of white paint, applied over a layer of K-FINISH will maintain their colour even in dark environments. The colours are resistant to light. It is advisable to paint the surface of externally insulated pipes to protect them againt harsh weather conditions and UV rays. For further protection it is advisable use a double layer of K-FINISH paint. Available in 2.5 litre tins, and on request, in various colours.



K-FLEX® COLOR PAINT



Special paint for retouching the surfaces of COLOR coverings, scratched or damaged during installation. The paint, ready for use, should be applied with a soft brush. Available in 0.5 litre tins.

 COLOR RANGE

 RAL 7035 grey
 RAL 9002 white

 RAL 5012 blue
 RAL 6032 green

K-FLEX® ALUMINIUM ENDCAPPING IN ROLLS



Special endcapping in ribbed aluminium for sealing the ends of insulated pipes. Available in the following colours: SILVER, LIGHT GREY, BLACK, BLUE and RED. Length of rolls - 10 m.

The different colours make it easier to identify the various pipes of a system.

MEASUREMENT

Internal/external ø mm: 18x32, 23x32, 28x32, 38x42, 48x42,58x42

APPLICATION

- Place a cap of insulating material over the end of the pipe
- Cut a strip of the endcapping long enough to wrap around the circumference of the pipe covering
- Wrap the endcapping around the end of the insulated pipe and around the edges of the pipe covering
- Fix the endcapping to the pipe covering with the correct selfadhesive tape









NEW FOR THE INSTALLER: K-FLEX[®] TOOLBOX!

 ${\sf K}\text{-}{\sf FLEX}^{\circledast}$ is pleased to introduce to its accessory range tool sets specifically tailored to each type of installation.

After extensive research, the K-FLEX[®] team has selected the best tools to support measurement, cutting and gluing ...everything necessary for the application of our insulating products!

MEASURING TOOLS:

In addition to the classic metal rolling meter and the wooden meter we have also selected a sturdy metal rule to facilitate linear cuts, a caliper and a compass suitable also for large diameter pipes and a cut-resistant template for the measurement and creation of elbows and T's.

CUTTING TOOLS:

In addition to the classic cutter with spare blades, we offer a set of knives of varying lengths complete with sharpening stone, a large mitrebox with grooves at 45° , 22.5° and 90° to facilitate the sectioning of the tube and a set of copper cores of various diameters to make the necessary holes to isolate valves, etc. All cutting tools are supplied with the correct blade guard or packaging specifically designed for transport, protection of the installer and of the product itself.

GLUING TOOLS:

We offer a K-FLEX[®] glue package specifically designed for our products to be used in conjunction with a set of flat brushes of different sizes or with the appropriate K-FLEX[®] applicator, as recommended in our installation manuals. There is also a special solvent-resistant container for cleaning brushes. In the toolbox you will find everything necessary for tracing onto our insulation products, a K-FLEX[®] installation manual and innovative multipurpose wipes for cleaning hands and tools, without using water. All our solutions, designed for the installer, are divided into practical sets for each installation: BASIC, MEDIUM and PREMIUM SET.

K-FLEX® TOOLBOX BASIC SET

- K-FLEX[®] Knife case
- 3 Knives
- Sharpening stone
- Cutter + Spare blades
- Cutting template



K-FLEX® TOOLBOX MEDIUM SET

- K-FLEX[®] Bag
- K-FLEX[®] Knife case
- 3 Knives
- Sharpening stone
- Cutter + Spare blades
- Cutting template
- Mitre box
- Caliper
- Compass
- > 2 Brushes
- > Yellow marker
- Tape measure
- Metal ruler
- Nail punch





K-FLEX[®] TOOL BOX BASIC SET



K-FLEX® ACCESSORIES > TOOL BOX - BASIC SET		
Description	- Dimension -	- Code -
KNIVES 3 K-FLEX® knives with stainless steel blades chrome molybdenum vanadium: 1 knife with 10 cm blade, 1 knife with 20 cm blade and 1 knife with 36 cm blade. Semi rigid and anti-slip plastic handle, with blade guard. CUTTER + SPARE BLADES 18 mm K-FLEX® Cutter + 1 box containing 10 spare blades. SHARPENING STONE Oval shaped tapered sharpening stone. CUTTING TEMPLATE K-FLEX® A4 PVC cutting template 1 mm thick., 21x29.7cm.	53x27x7cm	850VRMK0001

K-FLEX® TOOL BOX MEDIUM SET



K-FLEX® ACCESSORIES > TOOL BOX - MEDIUM SET		
Description	 Dimension 	▼ Code ▼
KNIVES 3 K-FLEX [®] knives with stainless steel blades chrome molybdenum vanadium: 1 knife with 10 cm blade, 1 knife with 20 cm blade and 1 knife with 36 cm blade. Semi rigid and anti-slip plastic handle, with blade guard.		
CUTTER + SPARE BLADES 18 mm K-FLEX® Cutter + 1 box containing 10 spare blades.		
SHARPENING STONE Oval shaped tapered sharpening stone.		
CUTTING TEMPLATE K-FLEX® A4 PVC cutting template 1 mm thick., 21x29,7cm.		
MITRE BOX Stanley/K-FLEX® ABS Mitrebox, 230mm long x 95mm wide.		
BRUSHES 2 K-FLEX® brushes with yellow plastic handle, 3 cm and 7 cm wide	62x30x25cm	850VRMK0002
METAL RULER and TAPE MEASURE K-FLEX® ABS 3m tape measure with imperial and metric measurements. K-FLEX® 30cm aluminium ruler.		
CALIPER and COMPASS K-FLEX® 300mm outside metal caliper for measuring the external size. K-FLEX® carpenter's compass with a metal arc and binding screw for setting at the desired degree of opening		
YELLOW MARKER Marker Edding/K-FLEX®: waterproof yellow marker pen, quick-drying, low-odour, lightfast and durable.		
NAIL PUNCH K-FLEX® nail punch, straight/angular for the accurate fastening of PVC and K-FLEX® AL CLAD foil.		

For stock availability, consult the relevant sales office.

K-FLEX® PIPE SUPPORT









K-FLEX® PIPE SUPPORT

 Research has shown that uninsulated pipe fittings are still a common thermal bridge on insulated pipe systems. Their effect is often underestimated. A finite element method analysis (FEM) on an insulated pipe section has shown that approximately 50% of the heat loss for the entire considered section is due to the lack of use of pipe supports. It is so easy to avoid thermal bridges. The solution is called K-FLEX[®] pipe support.

K-FLEX[®] PIPE SUPPORTS



Specifically designed to ensure a correct insulation thickness where joints are made. The PIR central section, which covers the whole circumference and is attached to two K-FLEX® insulating material sections, ensures a perfect continuity of the vapour barrier. Longitudinal sealing is obtained by means of the self-adhesive overlap. The external cover is in PVC. The support is also available with a collar and a special metal support which, when fixed to the supporting framework, ensures greater overall installation stability.

MEASUREMENTS

Thicknesses mm: 13, 19, 25, 32

Tube diameter mm: from 18 to 160; inches: from 3/4" to 5" The insulating supports are also available in K-FLEX[®] ECO, SOLAR, AL CLAD, COLOR, in the same measurements as those indicated for K-FLEX[®] ST.

K-FLEX® PIPE SUPPORTS > TECHNICAL DATA

- Property -	- Value -
Central section in PIR	Density 120 kg/m ³
Compression resistance	1350 kPa
Temperature range	-45 °C +105 °C
Thermal conductivity $\boldsymbol{\lambda}$	0,036 W/(m•K) at 0 °C
Maximum stockage time	1 year
Colour	Black
Permeability to vapour	0,16 W/(m∙K)
Diam. and thickness tolerance	1,0 gm ² 24h Pa

K-FLEX® reserves the right to change data and technical requirements without notice.

APPLICATION

- Place the insulating support around the pipe.
- Spread K-FLEX[®] adhesive onto the half-collars.
- Seal lengthways using the adhesive overlap.
- Fix the collar around the support.
- > Glue the support to the insulating material.













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