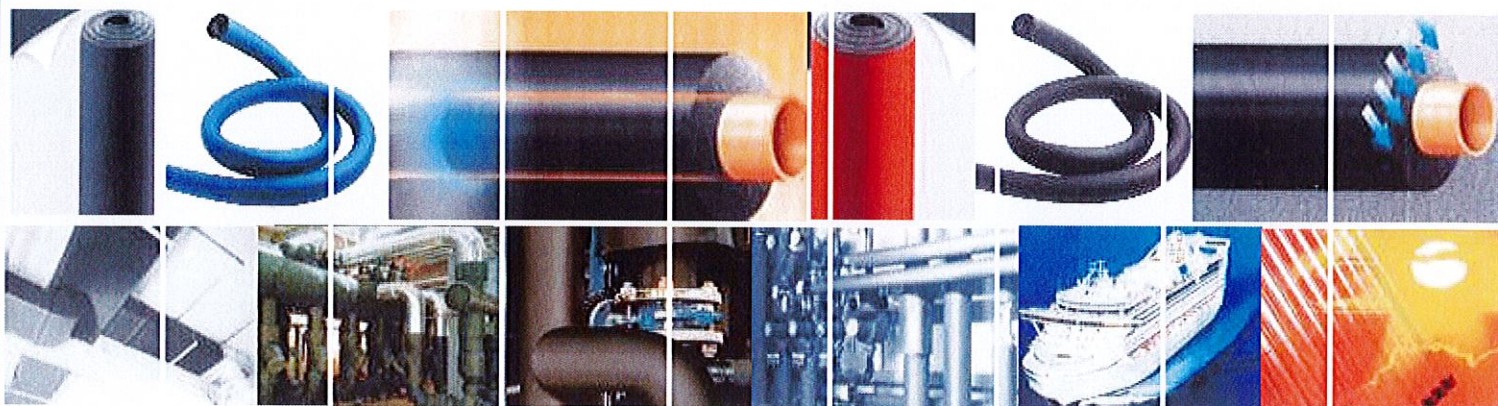




## GENERAL CATALOGUE



### K-FLEX

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### HIGH PERFORMANCE INSULATION SYSTEMS

### PRODUCTS AND ACCESSORIES





# PRODUCTS & ACCESSORIES

K-FLEX INDIA, is a part of L'ISOLANTE K-FLEX, a multinational company manufacturing elastomeric foam insulation with its head quarters in Milan, Italy. The manufacturing plant in Italy is currently the Worlds Largest manufacturing facility for the production of micro cellular closed cell nitrile rubber insulation. Besides Italy, we have several world class manufacturing facilities across the globe viz. USA, Russia, Poland, China, Turkey, U.A.E., India & Malaysia. In line with the company's policy of being close to the customer, K-FLEX has its operations in India and is offering world class innovative insulation products from the new Indian manufacturing facility at Ranjangaon, Pune.



FACILITY AT RANJANGAON, PUNE

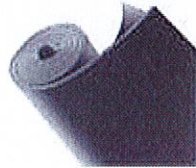
## K-FLEX ST SHEETS

Designed for the insulation of ducts, large flat surfaces, equipments and pipes of large diameters. Meets the different needs of insulation for industrial Air-Conditioning & Refrigeration, Industrial Processes, Heating, Tanks, Vessels, Underdeck insulation of Roofs, Floor, Wall Lining etc.

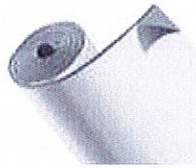
K-FLEX ST sheets are also available with various protective coverings and self adhesive on one side for ease of application.



STANDARD



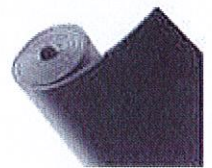
SELF ADHESIVE



ALU



IC CLAD COVER



ANTI MICROBIAL

## K-FLEX ST TUBES

Designed for condensation control for air conditioning & refrigeration piping, pipe fittings. Meets the need of insulation for HVAC, Industrial Processes, Oil & Gas, Petro-chemicals, Low Temp Cryogenics & Plumbing Applications.

Excellent for controlling heat loss, temperature drop & maintaining surface temperature of pipeline. Available with Protective Glass Fabric & Co-extruded Polymeric Covering for UV & mechanical protection



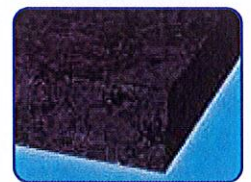
ST TUBES

## K-FLEX K-FONIK ACOUSTIC SYSTEMS

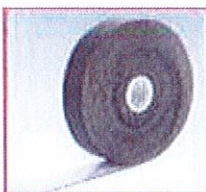
High performance acoustic insulation K-Fonik Open Cell processed elastomeric foam ensures the ideal acoustic insulation for all kinds of HVAC & Industrial Noise Control Applications. Air-Conditioning Duct Lining, AHU Rooms, Diesel Generator Set Enclosure Lining, Building & Industrial Noise Control, Marine & offshore applications.



- Available with "Ultra-Fresh"® Antimicrobial protection
- Easy & Fast application
- Guaranteed Elasticity & Stability
- Clean & Fibre Free Installation
- Excellent Sound Absorption



## K-FLEX ACCESSORIES



JOINT SEALING TAPE



K-FLEX ADHESIVE

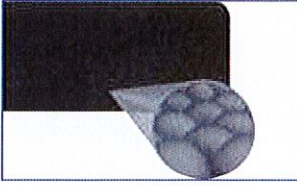


K-FLEX PIPE SUPPORT



# TECHNICAL CHARACTERISTICS

## CLOSED CELL PRODUCTS



Unique closed cell structure of the insulation provides stable & very low Thermal conductivity. Smooth skin of the material provides higher water vapor diffusion resistance. Increases longevity of thermal performance of Insulation. Uniform bonding of cells provide excellent compression resistance & consistent Thermal efficiency throughout the body of insulation.

## THERMAL CONDUCTIVITY

Very low thermal conductivity value due to unique compounding and closed cell structure. Thermal conductivity value as low as 0.033 W/(m.K) at 0 °C \*. Higher water vapor resistance combined with low thermal conductivity value makes K-FLEX an ideal Insulation material with long term efficiency & higher energy saving for the systems.



## RESISTANT TO WATER VAPOUR DIFFUSION ("μ" FACTOR)



High diffusion resistance factor that minimizes water vapor penetration, giving excellent long term performance. The "μ" value of insulation can be more than 10,000 which acts like a "Built-In" vapor barrier and gives long term Insulation efficiency against Condensation. A separate vapor barrier is not required on K-FLEX ST products.

## FIRE BEHAVIOR

Produced adhering to highest safety norms for Fire i.e FM Global Approved. K-FLEXST does not generate Flaming Droplets. Has very low flame spread and fire propagation index. It is certified as Class "O" as per BS 476 Part 6 & Part 7. It is self extinguishing material & also UL94 approved.



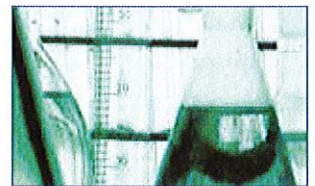
## FLEXIBILITY AND EASE OF USE



Very easy & fast installation due to its flexibility and elasticity. Ideal for variety of applications, such as: ducts, pipes, elbows, valves, flanges, equipments and complex shapes. Tangible saving of installation time and cost.

## QUALITY AND SAFETY

K-FLEX products are made as per stringent International quality standards and are certified by major International laboratories. K-FLEX elastomeric rubber insulation products adhere to the stringent quality norms applicable for marine, shipping, rail, oil, gas and clean room applications.



## TEMPERATURE RANGE



Suitable for various insulation applications ranging from - 200 ° C to 175 ° C. Best suited for different temperature range and applications like Cryogenic applications, cold storages applications, pharmaceutical, plumbing applications & hot water lines etc .

## ENVIRONMENT FRIENDLY

K FLEX Insulations are fibre free, dust free, CFC / HCFC free and aldehyde free material. Being close cell and made from elastomeric rubber, where organic matter is absent, it does not have presence of or does not support the growth of bacteria, mould and fungi. The products do not contain or emit VOC/ SVOC to further protect indoor air quality.



# TECHNICAL SPECIFICATIONS

## K-FLEX ST SHEETS & TUBES TECHNICAL DATA

PARAMETERS	K-FLEX SPECIFICATIONS
Material	Microcellular Closed Cell Nitrile Rubber Insulation
Temperature Range	-200°C to + 116°C*
Thermal Conductivity $\lambda$ W/(m.k) EN 12667 (DIN 52612) - ENISO 8497 (DIN52613)	-20°C=0.0312, 0degC =0.0333, 20degC=0.0353
<b>FM GLOBAL</b>	<b>FM GLOBAL Approved</b>
Corrosion Risk	DIN 1988/7** ; pH Neutral
Permeability $\mu$ EN 12086 (DIN 52615)	> 7000
Fire Rating BS 476 P 6 & 7	Class "O"
Fire Propagation & Surface Spread Of Flame BS 476 P 6/7	Total Index (I) < 12 Sub Index (I) < 6
Reaction To Fire	Self extinguishing, Does Not Drip
Resistance To Building Material	Very Good
Ozone Depletion Potential	Zero
Health Aspects	Dust & Fibre Free
Environment Aspects	CFC / HCFC Free
Emission Of Volatile Organic Compound	VOC / SVOC Free
UL - 94	UL - 94 Approved
Standard Thickness	09mm, 13mm, 19mm, 25mm, 32mm, 40mm, 50mm

\*For applications at temperatures lower than - 50° C please contact our technical support department.

\*\*Supervised by an independent Institute.

Note : For outdoor application use appropriate finish and protection to suit the application and conditions. All technical information is based on results achieved with typical application conditions. Users in their own interest and responsibility should satisfy the suitability of this information for intended applications.

## K-FLEX K-FONIK OPEN CELL ACOUSTIC INSULATION

PARAMETERS	K FLEX SPECIFICATIONS																																
Material	Processed Elastomeric Open Cell Nitrile Rubber Insulation																																
Density	140 - 180 $\square$ g/m <sup>3</sup>																																
Thermal Conductivity ( $\lambda$ ) EN12667(DIN52612)- ENISO 8497(DIN 52613)	0.047 W/m Deg K																																
Temperature Range	+ 105 °c to - 20 °c *																																
Fire Class	Class 1 rating. BS 476 Part 7																																
Health & Environment Aspect	Fibre free, CFC/HCFC Free																																
Air Erosion Resistance test Confirming to ASTM Standard C 1071-05 (section 12.7)	Pass																																
UL Approved	UL 94 (HBF, HF1 & HF 2) in accordance UL 94, 1996.																																
Resistance to Building material	Very Good																																
Ozone Depletion Potential	Zero																																
Tolerance	$\pm$ 1 - 2 mm																																
Coefficient of Sound absorption for Various thicknesses	<table border="1"> <thead> <tr> <th>Freq (Hz)</th> <th>125</th> <th>250</th> <th>500</th> <th>1000</th> <th>2000</th> <th>4000</th> <th>NRC</th> </tr> </thead> <tbody> <tr> <td>10mm thick</td> <td>0.00</td> <td>0.05</td> <td>0.15</td> <td>0.55</td> <td>0.90</td> <td>0.85</td> <td>0.42</td> </tr> <tr> <td>15mm thick</td> <td>0.05</td> <td>0.10</td> <td>0.25</td> <td>0.75</td> <td>0.95</td> <td>0.85</td> <td>0.49</td> </tr> <tr> <td>20mm thick</td> <td>0.03</td> <td>0.16</td> <td>0.56</td> <td>0.56</td> <td>0.86</td> <td>0.80</td> <td>0.50</td> </tr> </tbody> </table>	Freq (Hz)	125	250	500	1000	2000	4000	NRC	10mm thick	0.00	0.05	0.15	0.55	0.90	0.85	0.42	15mm thick	0.05	0.10	0.25	0.75	0.95	0.85	0.49	20mm thick	0.03	0.16	0.56	0.56	0.86	0.80	0.50
Freq (Hz)	125	250	500	1000	2000	4000	NRC																										
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20mm thick	0.03	0.16	0.56	0.56	0.86	0.80	0.50																										

\*Available in high density up to 240 kg /mtr<sup>3</sup> for handling of heavy/industrial noise



# PACKING DATA

## K-FLEX ST TUBES CLASS "O" : LENGTH 2 METERS

Copper Pipe		Iron Pipe		6mm thick (1/4inch)		9mm thick (3/8 inch)		13mm thick (1/2inch)		19mm thick (3/4inch)		25mm thick (1inch)		32mm thick (1-1/4 inch)	
OD inches	ØOD mm	NB mm	ØOD mm	Tube Sizes Thk X ID	mtr/box	Tube Sizes Thk X ID	mtr/box	Tube Sizes Thk X ID	mtr/box	Tube Sizes Thk X ID	mtr/box	Tube Sizes Thk X ID	mtr/box	Tube Sizes Thk X ID	mtr/box
1/4"	6			6 x 06	496	9 x 06	260	13 x 06	150	19 x 6	100				
5/16"	8			6 x 08	432	9 x 10	200								
3/8"	10	6	10,2	6 x 10	364	9 x 10	200	13 x 10	130	19 x 10	98				
1/2"	12			6 x 12	316	9 x 12	160	13 x 12	110	19 x 12	88	25 x 12	54		
5/8"	15	8	13,5	6 x 15	266	9 x 15	150	13 x 15	92	19 x 15	78	25 x 15	52		
3/4"	20			6 x 20	180	9 x 20	144	13 x 20	98	19 x 20	66	25 x 20	50	32 x 20	32
7/8"	22	15	21,3	6 x 22	180	9 x 22	106	13 x 22	84	19 x 22	64	25 x 22	42	32 x 22	32
1"	25			6 x 25	152	9 x 25	100	13 x 25	72	19 x 25	50	25 x 25	40	32 x 25	24
1-1/8"	28	20	26,9	6 x 28	130	9 x 28	100	13 x 28	72	19 x 28	48	25 x 28	40	32 x 28	24
	30			6 x 30	112	9 x 30	92	13 x 30	58	19 x 30	42	25 x 30	32	32 x 30	24
						9 x 32	92	13 x 32	58	19 x 32	42	25 x 32	24	32 x 32	22
1-3/8"	35	25	33,7	6 x 35	100	9 x 35	76	13 x 35	58	19 x 35	36	25 x 35	24	32 x 35	22
1-5/8"	42	32	42,4	6 x 42	90	9 x 42	60	13 x 42	48	19 x 42	32	25 x 42	22	32 x 42	16
		40	48,3			9 x 48	50	13 x 48	40	19 x 48	24	25 x 48	18	32 x 48	14
2-1/8"	54					9 x 54	46	13 x 54	34	19 x 54	24	25 x 54	16	32 x 54	12
2-3/8"	60	50	60,3			9 x 60	46	13 x 60	32	19 x 60	22	25 x 60	12	32 x 60	10
2-5/8"	67					9 x 67	46	13 x 67	26	19 x 67	18	25 x 67	12	32 x 67	10
2-7/8"	76	65	76,1			9 x 76	40	13 x 76	26	19 x 76	18	25 x 76	10	32 x 76	8
3-1/8"	80					9 x 80	36	13 x 80	24	19 x 80	14	25 x 80	8	32 x 80	8
		80	88,9			9 x 89	36	13 x 89	24	19 x 89	14	25 x 89	8	32 x 89	8
3-5/8"	92							13 x 92	20	19 x 92	14	25 x 92	8		
	102					9 x 102	22	13 x 102	16	19 x 102	14			32 x 102	6
4-1/8"	105							13 x 105	16	19 x 105	12	25 x 105	6	32 x 105	6
		100	114,3			9 x 114	22	13 x 114	16	19 x 114	12	25 x 114	6	32 x 114	6
	125							13 x 125	12	19 x 125	10				
	133							13 x 133	12	19 x 133	8				
		125	140			9 x 140	16	13 x 140	12	19 x 140	8	25 x 140	4	32 x 140	4
	168	150	168							19 x 168	6	25 x 168	4	32 x 168	4

\*m/box : Subject to change. ■ Tolerance Thickness : + 1- 1.5 mm. Length : + 0.03 mtrs.

## PACKING DATA FOR SHEETS

### K-FLEX ST SHEET ROLL CLASS "O"

Thickness mm	Roll Size mtr x mtr	Sqm/ Roll m <sup>2</sup> / roll
6	1.2 x 30	36.00
9	1.2 x 20	24.00
13	1.2 x 14	16.80
16	1.2 x 12	14.40
19	1.2 x 10	12.00
25	1.2 x 08	9.60
32	1.2 x 06	7.20
40	1.2 x 04	4.80
50	1.2 x 04	4.80

■ Tolerance: Thickness : ± 1-1.5 mm. Length : ± 0.02 mtrs.

### K-FLEX K-FONIK SHEET

Thickness mm	Type slab	Sheets Per Box mtr x mtr	Qty. m <sup>2</sup> / box
10	slab	0.975 x 0.975	19.00
15	slab	0.975 x 0.975	12.35
20	slab	0.975 x 0.975	9.50
25	slab	0.975 x 0.975	7.60
30	slab	0.975 x 0.975	5.70
40	slab	0.975 x 0.975	4.75
50	slab	0.975 x 0.975	3.80

\*Also Available in Packaging size: (Slabs of 0.5mtr x 0.5mtr, 1mtr x 1mtr)\*

Tolerance Thickness: ± 1- 2mm Size: ±0.01 mtrs

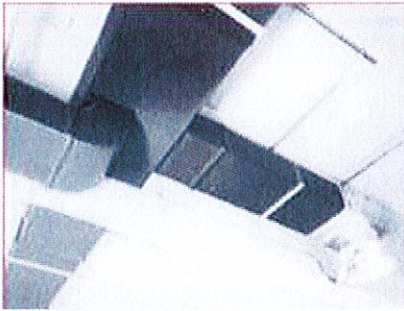
Sheet Size & m<sup>2</sup>/box: subject to change without notice

## K-FLEX ADHESIVE TAPES

Thickness	Type	Width	Total Length
3mm	Roll	50 mm wide	10 m Length



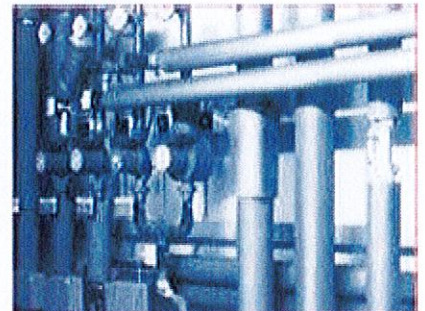
# SPECIAL PRODUCTS & APPLICATIONS



**HVAC & Industrial Plant Engineering, Underdeck Air-Conditioning, Ducts, Industrial Cooling, Large Surfaces**



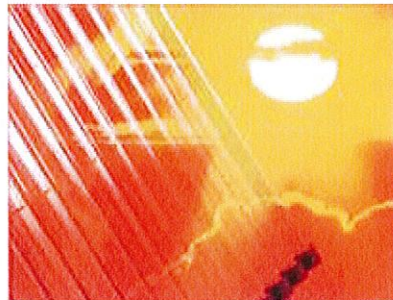
**HVAC / Industrial Processes & Civil Engineering Refrigeration, Air-Conditioning, Heating, Process Piping**



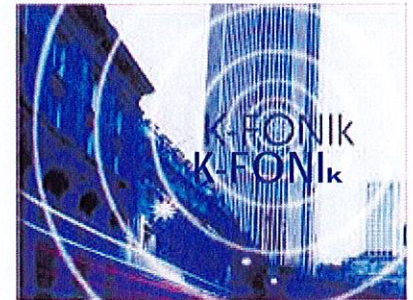
**Water, Heat & Sanitary Plant Engineering Heating, Sanitary, Air-Conditioning, Plumbing**



**Marine / Railway / LNG Plant Engineering Air-Conditioning, Refrigeration, Heating**



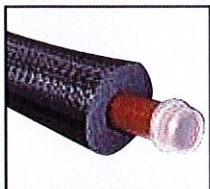
**Solar Engineering High Temperature Applications.**



**Acoustic Engineering Internal & External Walls, Domestic & Commercial Drainage Piping, Slab, Air Conditioning Ducts**

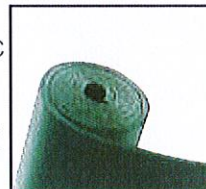
## OTHER PRODUCTS

### K-FLEX R



**Temp Range :** From -50°C to +175°C  
**Thermal Conductivity:** 0.040 W/mK at 20 °C  
**UV Resistance :** EN 13859-1  
**Characteristics :** UV Resistant Mechanical protection for outdoor piping. Tough Durable cost effective. Convenient Solution for Solar and industrial process applications.

### K-FLEX ECO



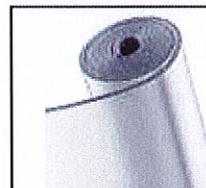
**Temp Range:** From -70°C to +150°C  
**Thermal Conductivity:** 0.038 W/mK at 0 °C  
**Characteristics :** Halogen free, PVC free, HCFC-CFC free, environmental friendly insulation with transparent non-toxic fumes. Shipping, Airports, Public Buildings, Production facilities, Hotels.

### K-FLEX SOLAR HT



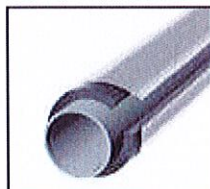
**Temp Range :** From -50°C to +175°C  
**Thermal Conductivity:** 0.038 W/mK at 0 °C  
**Characteristics :** High temp insulation systems in sheet & tube form. EPDM based material. Low pressure vapor, & industrial processes.

### K-FLEX AI CLAD SYSTEM



**Composition:** PVC foil + aluminium foil + UV protection film.  
**Characteristics:** Weather resistant, excellent mechanical strength-Resistant to aggressive chemicals (Acids, bases) Aesthetic appearance & functional value.

### K-FLEX IN CLAD SYSTEM



**Composition :** Hypalon polymer, black & grey  
**Thickness:** 1.2 + 0.2 microns  
**Characteristics:** Specified for the Oil & Gas industries, Shipping & Off shore applications. Best suited for Extreme weather conditions. Resistant to salts, fats, oils & UV. Approved by DNV, Lloyds, Factory Mutual, ABS



Note : K-FLEX reserves the right to change the data and technical specifications without notice. This publication dt. 24 -06-14 supercedes the previous publication.



**K-FLEX INDIA**

**K-FLEX INDIA PVT. LTD.**

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[www.kflex.com](http://www.kflex.com)