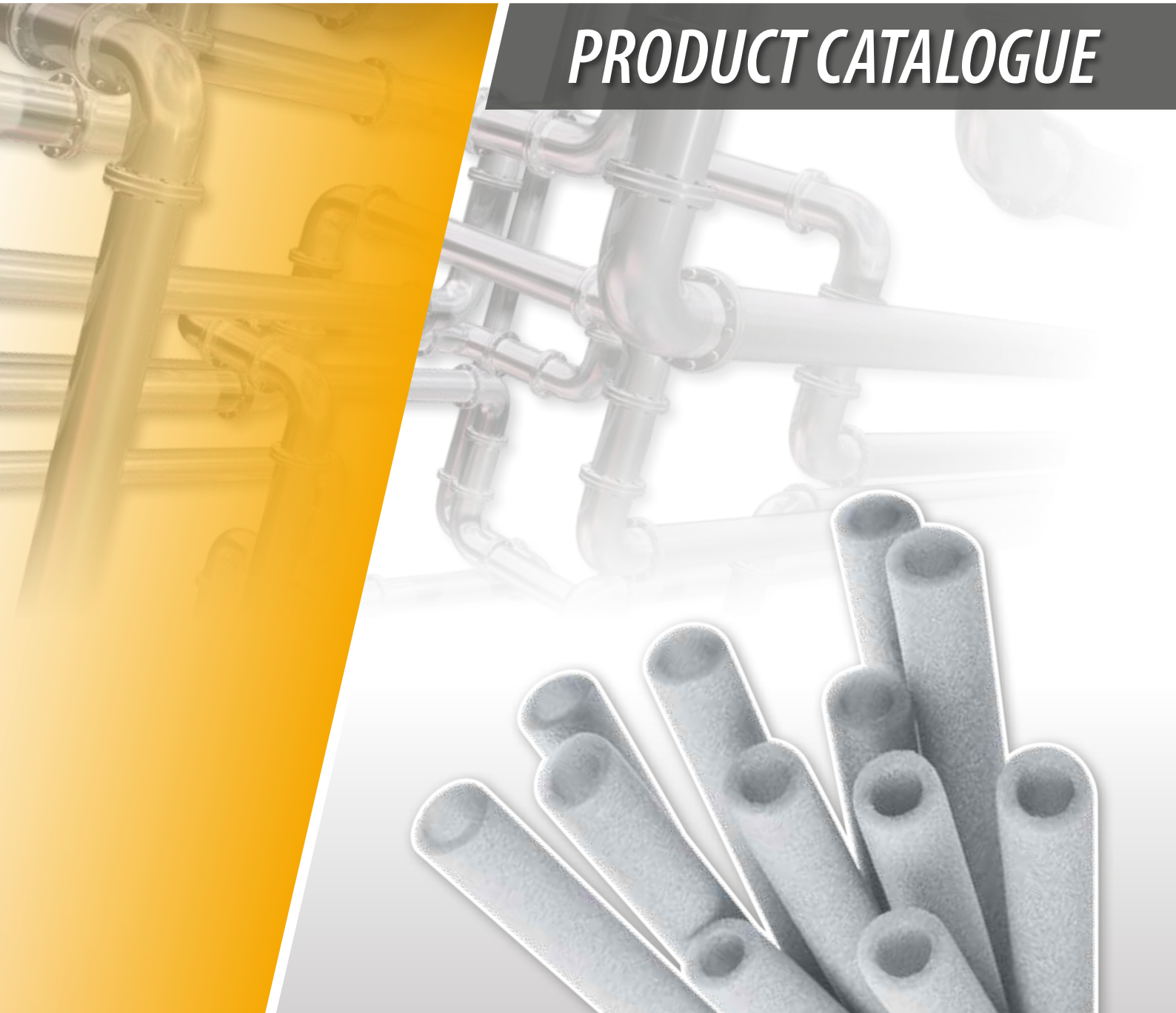


The logo for TUBEX, featuring the word "TUBEX" in a bold, white, sans-serif font with a registered trademark symbol (®) to its left. The text is set against a white background that is part of a larger orange graphic element.

*THERMAL AND ACOUSTIC  
POLYETHYLENE INSULATION*

**PRODUCT CATALOGUE**



**TUBEX®** - PROFESSIONAL INSULATION

The logo for SPUR, consisting of the word "SPUR" in a white, bold, sans-serif font inside an orange oval shape with a registered trademark symbol (®) to its right.



# INTRODUCTION



## *SPUR a.s. – producer of TUBEX® insulation*

- plastic products manufacturer with modern technology founded in 1992
- production of TUBEX® insulating materials started in 1994
- high quality of products is assured by long-term professional research and development, experience, testing and production inspection
- more than 70 % of production is exported abroad
- own industrial facilities in Zlín with the total area of 55,000 m<sup>2</sup>, the production area includes 11,000 m<sup>2</sup> of manufacturing area and 21,300 m<sup>2</sup> of storage area

### **Place of business SPUR a.s.**

trida Tomase Bati 299, Louky, 763 02 Zlin, Czech Republic

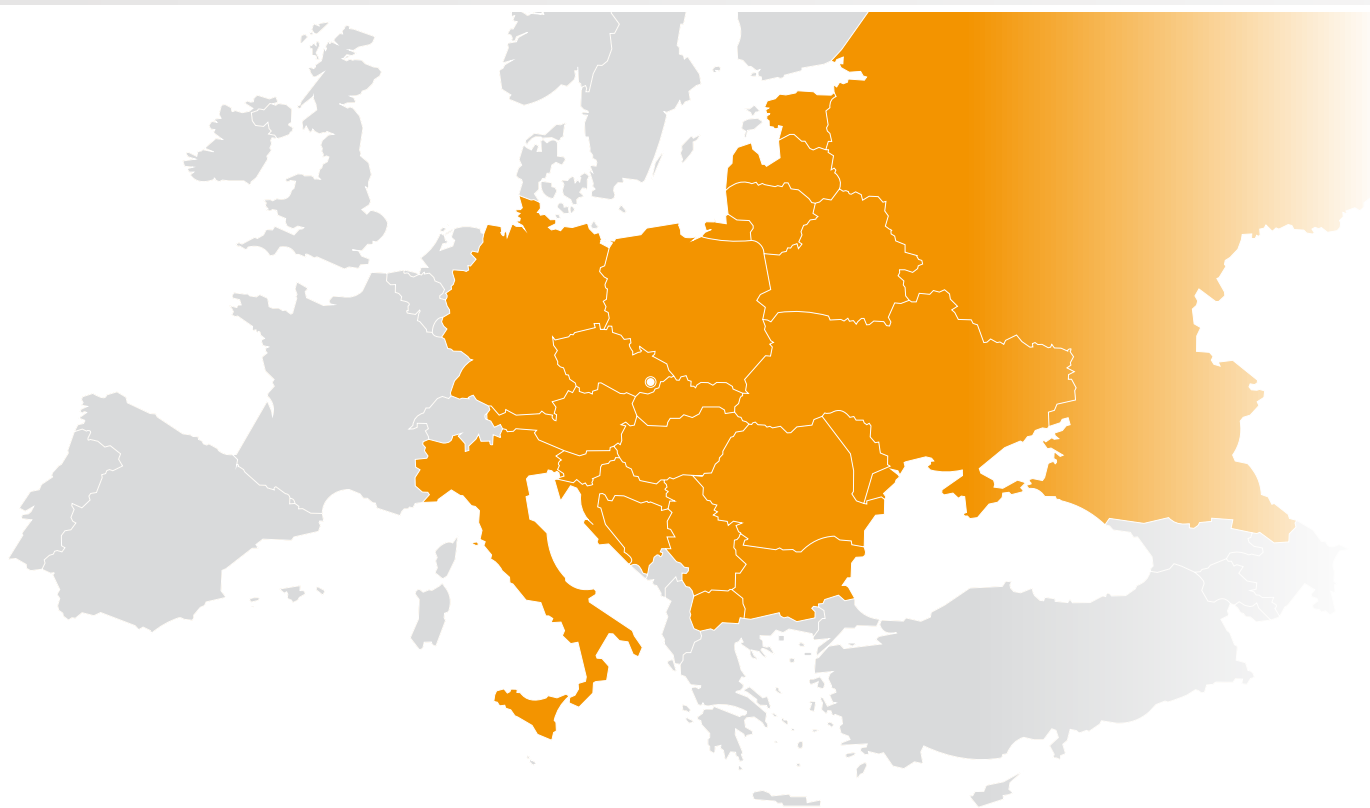
tel.: +420 577 601 201

fax: +420 577 601 221

e-mail: spur@spur.cz



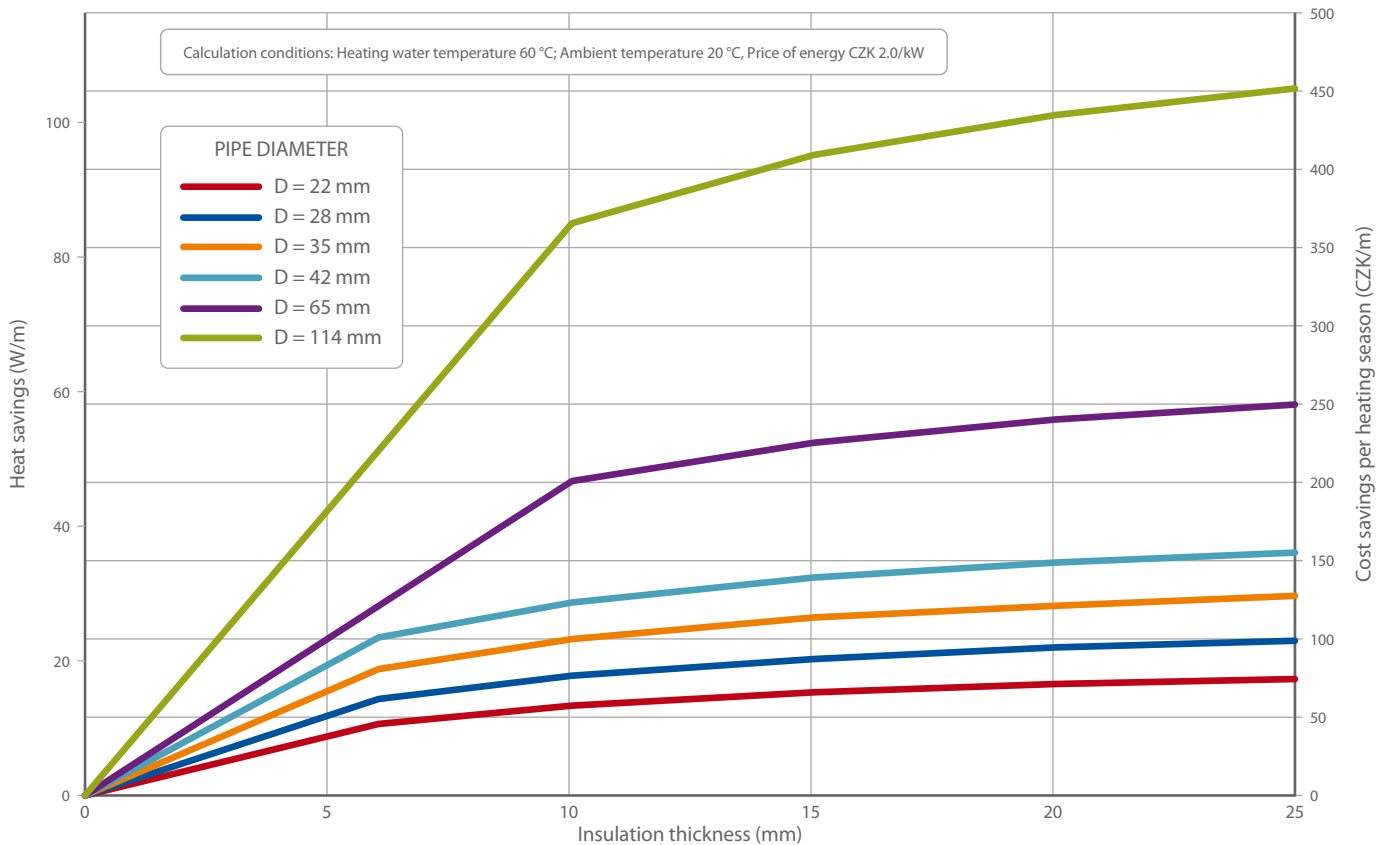
*Export markets for TUBEX® insulation*






## Cost savings

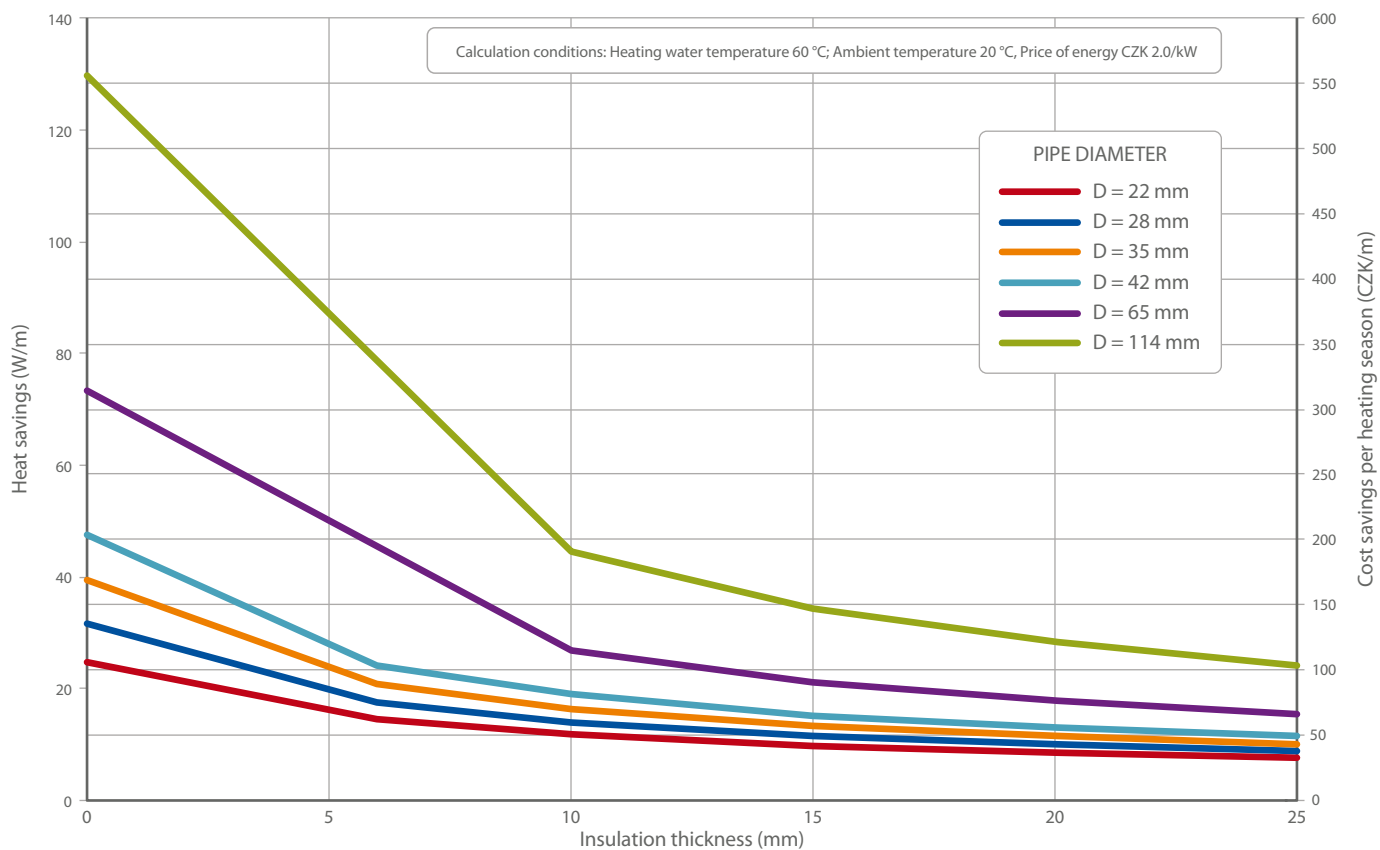
on thermal loss of a steel pipe with the length of 1 meter with the use of the TUBEX® Standard insulation



	Piping for heating systems	Piping for heating in boiler rooms and heat exchanger units	Piping for hot and cold utility water	Piping for underfloor heating	Piping for hot and cold utility water installed in walls and floors	Waste piping	HVAC piping	Large diameter piping	Insulation under flooring	Dilatation joints	Cooling and air-conditioning piping
STANDARD	••	•	••	•	•	•					
AL		•	•								
PROTEKT	••	•	••	••	••						
DISK	•		•	••	••						
SONIK						••					
SHEETS, PANELS	•	•				•	••	••	••		
DILATATION										••	
MINERAL WOOL TUBING	••	••	•			•					
K-FLEX	••	••	••	•	••		••	••			••

## Thermal loss

of a hot water steel pipe with the length of 1 meter with the use of the TUBEX® Standard insulation





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## **TUBEX**<sup>®</sup> STANDARD

**TUBEX<sup>®</sup> STANDARD tubes of expanded polyethylene are designed for perfect thermal insulation of piping distributions of hot and cold water and other media in residential, industrial and agricultural buildings.**

- High thermal-insulating efficiency
- Easy installation, disassembling and reusing
- Low weight, high flexibility and elasticity
- Simple insulation of pipe elbows
- Easy to cut with knife, no crumbling
- Resistance against damping
- Chemical resistance
- Protection of piping against condensation of water vapours and corrosion
- Ability to absorb acoustic effects
- Good adhesion with suitable adhesives
- Harmless to health and environment



Technical parameter	Value	Standard
Reaction to fire	Class E <sub>L</sub>	ČSN EN 13501-1
	Class B2	DIN 4102
Thermal conductivity (10 °C)	≤ 0.040 W/(mK)	ČSN EN ISO 13787
Short-term absorbability	WS 01 (0.08 kg/m <sup>2</sup> )	ČSN EN 13472
Water vapour permeability	MU 2000	ČSN EN 13469
Maximum operating temperature	ST (+)90	ČSN EN 14707

We supply the presented assortment of insulation tubes with all auxiliary materials (plastic clips, special adhesives, self-adhesive tapes, assembling kits, etc.) necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in the SPUR a.s. production plant or at our salespeople all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

<i>ASSORTMENT OF DIMENSIONS – TUBEX® STANDARD tubes are supplied with the length of 2 m, in a cardboard box with the size of 205 x 60 x 40 cm</i>					
Inner diameter (mm)	Quantity in box (m)				
	Wall thickness 6 mm	Wall thickness 10 mm	Wall thickness 15 mm	Wall thickness 20 mm	Wall thickness 25 mm
12	650	400	270	-	-
15	600	340	220	170	-
18	520	320	210	140	-
20	400	290	-	-	-
22	400	270	170	120	80
25	320	230	-	-	-
28	280	190	140	100	74
32	240	160	-	-	-
35	210	150	108	80	66
42	160	120	80	70	56
48	-	100	74	66	48
52	-	80	70	56	42
54	-	80	70	56	40
60	-	72	54	48	32
65	-	66	54	40	32
70	-	56	48	40	-
76	-	50	38	32	24
89	-	-	32	24	20
92	-	-	28	24	-
101	-	-	24	22	-
108	-	-	24	20	-
114	-	-	20	18	-
134	-	-	-	16	-



## TUBEX<sup>®</sup> AL

**TUBEX<sup>®</sup> AL is comfortable thermal and acoustic insulation of water and heating system piping. The slip-on tube of expanded polyethylene is coated with reinforced aluminium foil with lengthwise overlapping strip provided with self-adhesive layer for easy installation. The aluminium coating provides reliable protection against UV radiation and mechanical damage.**

- High thermal-insulating efficiency
- Easy installation
- Resistance against UV radiation
- Easy maintenance even in hygienically demanding environments
- Higher resistance against damage
- Low weight
- High chemical and biological resistance
- Increased resistance against water vapour diffusion
- Harmless to health and environment (not harmful to the environment)

Technical parameter	Value	Standard
Reaction to fire	Class E <sub>L</sub>	ČSN EN 13501-1
	Class B2	DIN 4102
Thermal conductivity (10 °C)	≤ 0.040 W/(mK)	ČSN EN ISO 13787
Short-term absorbability	WS 01 (0.08 kg/m <sup>2</sup> )	ČSN EN 13472
Water vapour permeability	MU 20000	ČSN EN 13469
Maximum operating temperature	ST (+)90	ČSN EN 14707

We supply the presented assortment of insulation tubes with all auxiliary materials (plastic clips, special adhesives, self-adhesive tapes, assembling kits, etc.) necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in SPUR a.s. production plant or at our salesmen all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

<i>ASSORTMENT OF DIMENSIONS – TUBEX® AL tubes are supplied with the length of 1 m, in a cardboard box with the size of 100 x 60 x 40 cm</i>				
<i>Inner diameter (mm)</i>	<i>Quantity in box (m)</i>			
	<i>Wall thickness 10 mm</i>	<i>Wall thickness 15 mm</i>	<i>Wall thickness 20 mm</i>	<i>Wall thickness 25 mm</i>
12	200	135	-	-
15	170	110	85	-
18	160	105	70	-
20	-	-	-	-
22	135	85	60	40
25	-	-	-	-
28	95	70	50	36
32	-	-	-	-
35	75	54	40	32
42	60	40	35	28
48	50	37	33	24
52	40	35	28	20
54	40	35	28	20
60	36	27	24	16
65	33	27	20	16
70	28	24	20	-
76	25	19	16	12
89	-	16	12	10
92	-	14	12	-
101	-	12	11	-
108	-	12	10	-
114	-	10	9	-
134	-	-	8	-



## TUBEX<sup>®</sup> PROTEKT

The TUBEX<sup>®</sup> PROTEKT thermo-insulating tube of expanded polyethylene coated by durable LDPE foil with the red or blue colour design is ideal thermal insulation of hot and cold water piping distributions. It is used at places with higher requirements on mechanical durability. It is suitable for use in underfloor heating systems.

- Excellent thermal insulating properties
- Increased mechanical durability
- Increased vapour non-permeability
- High resistance against damping
- Easy installation
- Possibility of colour coding hot and cold water
- Modern design
- Harmless to health and environment

Technical parameter	Value	Standard
Reaction to fire	Class E <sub>L</sub>	ČSN EN 13501-1
	Class B2	DIN 4102
Thermal conductivity (10 °C)	≤ 0.040 W/(mK)	ČSN EN ISO 13787
Short-term absorbability	WS 01 (0.08 kg/m <sup>2</sup> )	ČSN EN 13472
Water vapour permeability	MU 2000	ČSN EN 13469
Maximum operating temperature	ST (+)90	ČSN EN 14707

We supply the presented assortment of insulation tubes with all auxiliary materials (plastic clips, special adhesives, self-adhesive tapes, assembling kits, etc.) necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in the SPUR a.s. production plant or at our salespeople all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

<i>ASSORTMENT OF DIMENSIONS – TUBEX® PROTEKT tubes are supplied with the length of 2 m, in a cardboard box with the size of 205 x 60 x 40 cm</i>		
<i>Inner diameter (mm)</i>	<i>Quantity in box (m)</i>	
	<i>Wall thickness 6 mm</i>	<i>Wall thickness 10 mm</i>
12	650	400
15	410	340
18	400	320
20	400	290
22	300	270
25	300	230
28	230	190
32	230	160
35	180	150
42	160	120
48	-	100
52	-	80
54	-	80
60	-	72

On customer's request, TUBEX® PROTEKT insulation can be produced in bigger diameters or with a different colour of the protective foil (black, silver, white).



## **TUBEX**<sup>®</sup> DISK

**TUBEX<sup>®</sup> DISK is a tubular seamless thermal insulation of expanded polyethylene with round cross-section, coated by PE foil and designed for hot and cold water piping distributions. It prevents the build-up of condensate on piping and subsequent penetration of moisture into building structures. The coating of the tube protects the insulation against the aggressive environment in the walls and floors and against mechanical damage.**

- High thermal-insulating efficiency
- Easy handling and installation
- Resistance against damping
- Chemical resistance
- Harmless to health and environment

Technical parameter	Value	Standard
Reaction to fire	Class E <sub>L</sub>	ČSN EN 13501-1
	Class B2	DIN 4102
Thermal conductivity (10 °C)	≤ 0.040 W/(mK)	ČSN EN ISO 13787
Short-term absorbability	WS 01 (0.08 kg/m <sup>2</sup> )	ČSN EN 13472
Water vapour permeability	MU 2000	ČSN EN 13469
Maximum operating temperature	ST (+)90	ČSN EN 14707

We supply the presented assortment of insulation tubes with all auxiliary materials (plastic clips, special adhesives, self-adhesive tapes, assembling kits, etc.) necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in the SPUR a.s. production plant or at our salespeople all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

<i>ASSORTMENT OF DIMENSIONS – TUBEX® DISK tubes are supplied in rolls with the length of 10 m, in a cardboard box with the size of 56 x 44 x 44 cm</i>	
<i>Inner diameter (mm)</i>	<i>Quantity in box (m)</i>
	<i>Wall thickness 4 mm</i>
15 mm	20 rolls / 200 m
18 mm	15 rolls / 150 m
22 mm	13 rolls / 130 m
28 mm	10 rolls / 100 m
35 mm	9 rolls / 90 m
42 mm	7 rolls / 70 m

On customer's request, the TUBEX® DISK insulation can be produced in other diameters and thicknesses.



## **TUBEX**<sup>®</sup> SONIK

**TUBEX<sup>®</sup> SONIK is an ideal acoustic insulation of waste pipes and fittings and stormwater drains, made of expanded polyethylene with fine microporous structure. Our acoustic insulation technology of pipes and drains significantly enhances the personal comfort in utility and residential buildings.**

- Highly resistant insulation
- Easy installation and handling
- Prevents surface condensation on drains
- Protects drains against corrosion
- Prevents damping of the walls and flooring
- Harmless to health and environment



Technical parameter	Value	Standard
Reaction to fire	Class E <sub>L</sub>	ČSN EN 13501-1
	Class B2	DIN 4102
Thermal conductivity (10 °C)	≤ 0.040 W/(mK)	ČSN EN ISO 13787
Short-term absorbability	WS 01 (0.08 kg/m <sup>2</sup> )	ČSN EN 13472
Water vapour permeability	MU 2000	ČSN EN 13469
Maximum operating temperature	ST (+)90	ČSN EN 14707

We supply the presented assortment of insulation tubes with all auxiliary materials (plastic clips, special adhesives, self-adhesive tapes, assembling kits, etc.) necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in the SPUR a.s. production plant or at our salespeople all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

**ASSORTMENT OF DIMENSIONS** – TUBEX® SONIK tubes are supplied in rolls of the corresponding length, in a cardboard box with the size of 50.5 x 50.5 x 105 cm

Inner diameter (mm)	Quantity in box (m)
	Wall thickness 5 mm / Roll length 15 m
40	11 rolls / 165 m
50	9 rolls / 135 m
63	7 rolls / 105 m
75	7 rolls / 105 m
80	7 rolls / 105 m
100	5 rolls / 75 m
110	5 rolls / 75 m
125	4 rolls / 60 m

On customer's request, the TUBEX® SONIK insulation can be produced in grey and with protective silver LDPE film on the outer surface.



## TUBEX® THERMAL INSULATING BANDS AND BOARDS

- High thermal-insulating efficiency
- Easy installation, disassembling and reusing
- Low weight, high flexibility and elasticity
- Easy to cut with knife, no crumbling
- Resistance against damping
- Chemical resistance
- Protection of fittings against condensation of water vapours and corrosion
- Ability to absorb acoustic effects
- Good adhesion with suitable adhesives
- Harmless to health and environment



Thermal insulating sheet of expanded polyethylene - grey



Thermal insulating sheet of expanded polyethylene - white

### Bands of standard design

- thermal insulation under flooring, laminate floors and parquetry
- its primary use is to make uneven floor even
- acoustic and thermal insulation under concrete floors
- insulation of larger fittings, adapters and piping distributions of hot and cold water, air-conditioning and air-handling systems
- dilatation strips and fills
- packaging material

Technical parameter	Value	Standard
Reaction to fire	Class E	ČSN EN 13501-1+A1:2010
Thermal conductivity (10 °C)	≤ 0.04 W/(mK)	ČSN EN ISO 13787
Water vapour permeability	MU 2000	ČSN EN 13469
Releasing of harmful substances	does not contain	AHEM 3/2000
Deviation from the minimum thickness $d_N$	Class T6 -0/+1	ČSN EN 823
Long-term absorbability WL(T) (kg/m <sup>2</sup> )	Class WL(T)5 4.4 kg/m <sup>2</sup>	ČSN EN 12087
Compression stress at 10% compressing $\sigma_{10}$	CS (10)10 10.23 kPa	ČSN EN 826
Compressibility c (mm)	CP1 0.81 mm	ČSN EN 12 431

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

## ASSORTMENT OF DIMENSIONS

Design (colour)	Thickness (mm)
Colour design as required by the customer	0.8 – 80



Thermal insulating sheet laminated with polyethylenephtalate foil with aluminium film



Thermal insulating sheet laminated with aluminium foil



Thermal insulating sheet laminated with polyethylene foil



Thermal insulating sheet provided with self-adhesive tape with paper cover

### Bands laminated with aluminium foil or polyethylenephtalate foil with aluminium film

- reflexive foil for use behind heating radiators, under underfloor heating
- insulation of large tanks
- insulation of air-conditioning and air-handling equipment, including piping distributions
- sheet insulation of cooling technology
- insulation of larger fittings, adapters and piping distributions
- self-adhesive foils for precise and quick gluing of larger surfaces

### Bands laminated with polyethylene foil

- thermal insulation under flooring, laminate floors, parquets, non-permeable for water and water vapours
- to make uneven floor even



## TUBEX<sup>®</sup> DILATATION

**TUBEX<sup>®</sup> dilatation sheets are made of expanded polyethylene with enclosed cellular structure. They are used in construction as sealing and dilatation to separate vertical building structures from concrete surfaces adjust to expansion of construction materials, and as a filler for stressed joints. The material is permanently flexible and easily absorbs dimensional changes of concrete grouting.**

- Fast and simple application with the use of the recommended adhesive or self-adhesive strip
- Acoustic insulation – the dilatation sheet significantly reduces the transfer of impact noise from the floor onto the building structure
- Thermal insulation – prevents forming a thermal bridge between the floor and walls
- Harmless to health and environment

Technical parameter	Value	Standard
Reaction to fire	Class E	ČSN EN 13501-1+A1:2010
Thermal conductivity (10 °C)	≤ 0.04 W/(mK)	ČSN EN ISO 13787
Water vapour permeability	MU 2000	ČSN EN 13469
Releasing of harmful substances	does not contain	AHEM 3/2000
Deviation from the minimum thickness $d_N$	Class T6      -0/+1	ČSN EN 823
Long-term absorbability WL(T) (kg/m <sup>2</sup> )	Class WL(T)5      4.4 kg/m <sup>2</sup>	ČSN EN 12087
Compression stress at 10% compressing $\sigma_{10}$	CS (10)10      10.23 kPa	ČSN EN 826
Compressibility c (mm)	CP1      0.81 mm	ČSN EN 12 431

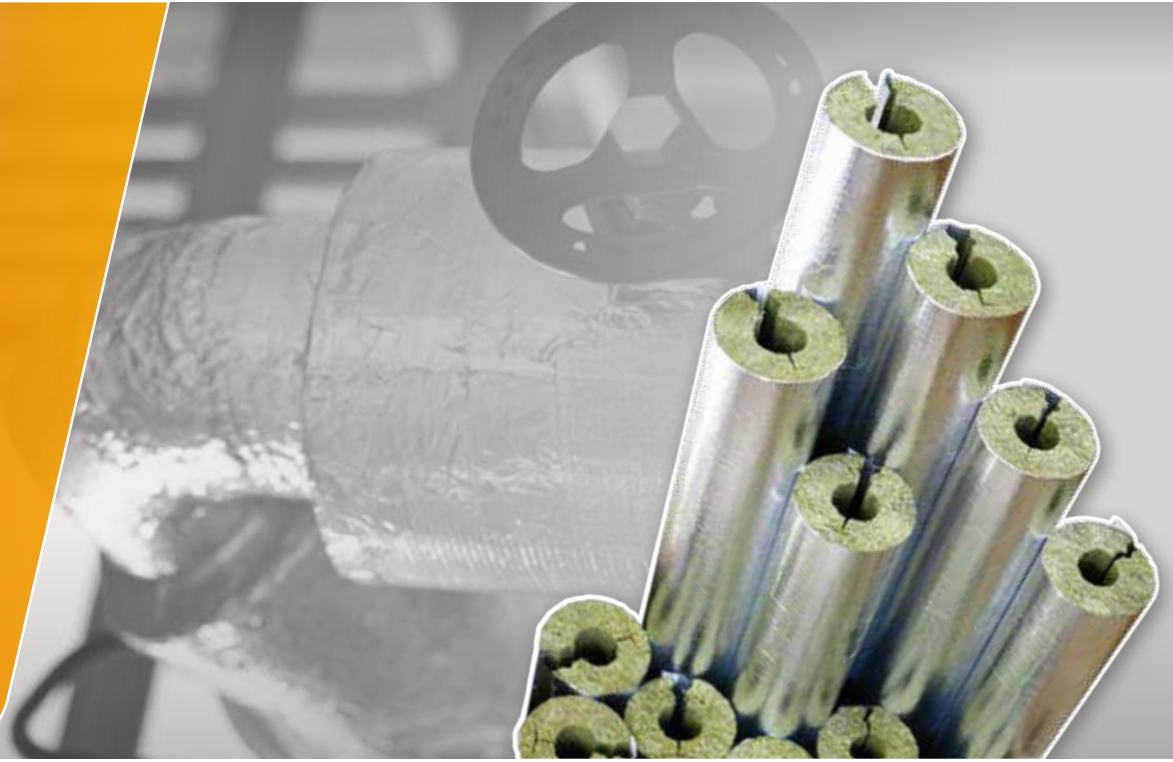
Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

**ASSORTMENT OF DIMENSIONS – TUBEX® DILATATION** is supplied in rolls with the length of 50 m, in a cardboard box with the size of 120 x 70 x 70 cm

Width (mm)	Thickness (mm)	Roll length (m)
80	5, 8, 10	50
100	5, 8, 10	50
120	5, 8, 10	50
150	5, 8, 10	50
180	5, 8, 10	50
200	5, 8, 10	50

**We supply dilatation sheets in several thicknesses and widths:**

- in the form of tapes
- in the form of tapes with polyethylene foil
- with lengthwise perforations for easy tearing off of the overlapping part for concreting to the required height
- with self-adhesive strip for easy attachment to the building structure



## **TUBEX**<sup>®</sup> *MINERAL WOOL TUBING*

Mineral wool tubing is designed for thermal and acoustic insulation of piping with circular cross-section with the temperature of transported medium of up to 600 °C and with the temperature on the surface of the aluminium foil up to 100 °C. The tubing must be protected against moisture. The surface Al foil reinforced with glass fibre reinforcement features an overlapping self-adhesive strip, which ensures fixing of the joint.

- High thermal-insulating efficiency
- Comfortable installation, easy cutting to shape
- Shape stability and fastness on piping
- Resistance against moulds and rodents
- Easy maintenance
- Hygienically sound and harmless to health

Technical parameter	Symbol	Class/Value	Standard
Coefficient of thermal conductivity in relation to temperature	$\lambda$	0.040 at 50 °C W/m-K 0.047 at 100 °C W/m-K 0.056 at 150 °C W/m-K 0.068 at 200 °C W/m-K 0.083 at 250 °C W/m-K 0.100 at 300 °C W/m-K 0.120 at 350 °C W/m-K	EN 14303
Maximum operating temperature	ST(+)	600 °C	EN 14706
Thickness tolerance class	-	T8	EN 823
Class of reaction on fire	-	A2-s1, d0	EN 13501-1
Fibre melting point	$T_t$	$\geq 1\ 000$ °C	DIN 4102-17
Short-term absorbability	WS	$\geq 1$ kg/m <sup>2</sup>	EN 1609
Equivalent diffuse thickness of foil on the surface of the centre	-	$\geq 100$ m	-
Maximum temperature on the surface of aluminium foil	-	100 °C	-

We supply the presented assortment of insulation tubes with all auxiliary materials necessary for making perfect thermal insulation of piping distributions of hot or cold water or other media. We provide wholesale in the SPUR a.s. production plant or at our salespeople all around the Czech Republic and Slovakia.

Production of TUBEX® insulation is certified and in compliance with requirements of ČSN EN ISO 9001:2009.

### ASSORTMENT OF DIMENSIONS – mineral wool tubing is supplied with the length of 1 m, in a cardboard box with the size of 50 x 51 x 100 cm

Inner diameter (mm)	Quantity in box (m)						
	Wall th. 25 mm	Wall th. 30 mm	Wall th. 40 mm	Wall th. 50 mm	Wall th. 60 mm	Wall th. 80 mm	Wall th. 100 mm
21	46	35	25	16	12	7	4
27	42	30	20	16	12	6	4
34	36	30	20	14	10	6	4
43	30	25	16	12	9	6	7
49	25	20	16	11	8	5	7
61	20	16	12	9	7	4	6
70	18	15	11	8	6	4	6
77	16	12	10	8	6	4	6
89	12	11	9	6	5	8	6
102	10	9	7	6	4	7	5
109	9	9	6	5	4	6	4
115	9	8	6	5	4	6	4
120	8	7	6	5	4	6	4
125	8	6	5	4	8	6	4
133	7	6	5	4	8	6	4
141	-	6	4	8	7	5	4
159	-	4	4	8	7	5	4
167	-	4	10	8	7	5	4

On customer's request, the mineral wool tubing can be produced in other diameters and thicknesses.



## **K-FLEX<sup>®</sup> ST** elastomer tube

The insulation tubes K-FLEX<sup>®</sup> ST are suitable for the temperature range from -200 °C to +110 °C. They meet demanding requirements on insulating material for the areas of industrial cooling, air-conditioning, air handling, sanitation and heating.

- Elastomer insulation with closed cell structure
- High factor of resistance against diffusion of water vapours
- High thermal-insulating efficiency
- Guaranteed elasticity and stability
- Easy installation and handling
- Resistant against moulds and bacteria



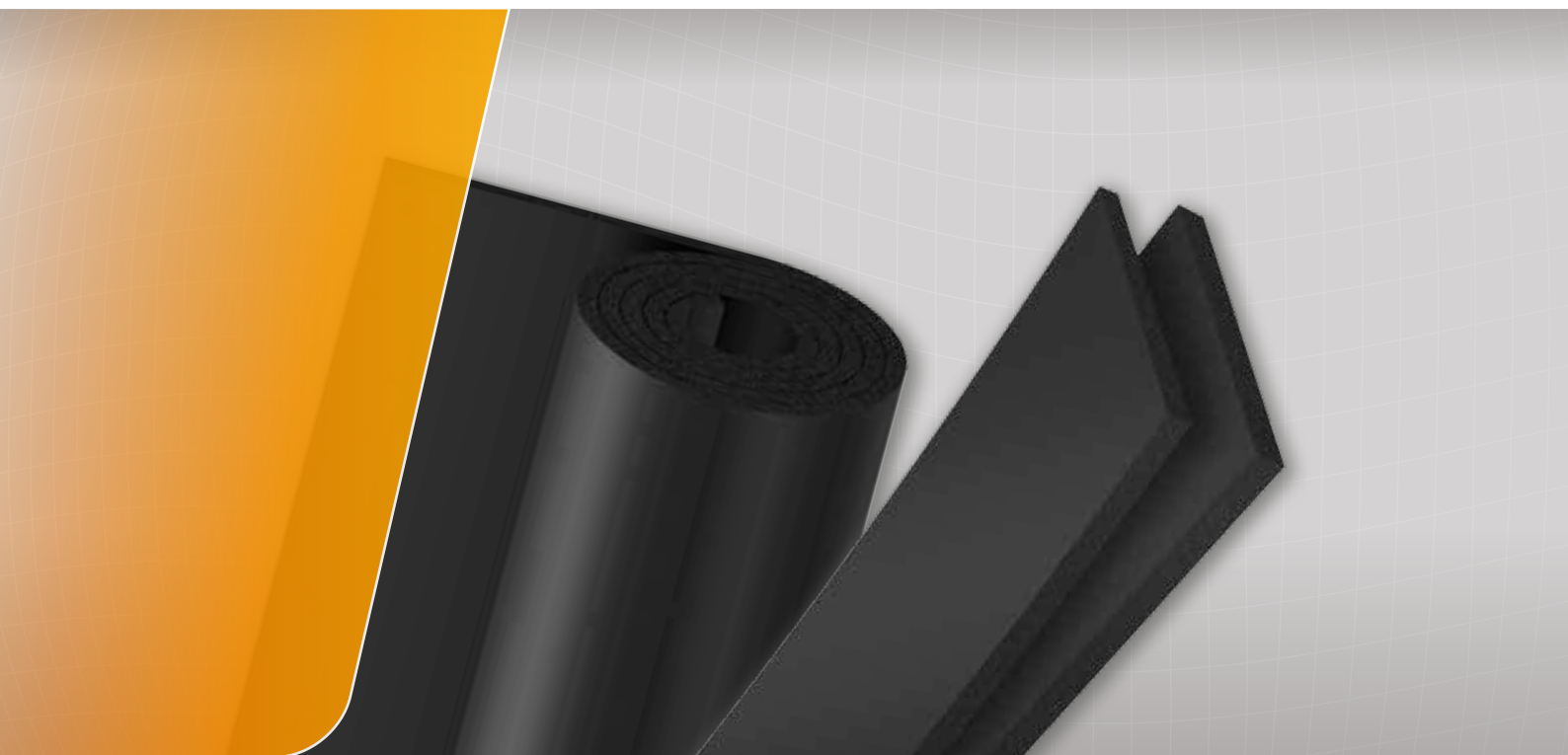
### Technical parameters

Tube length	2 m
Wall thickness	from 6 mm to 32 mm
Inner diameter	from 6 mm to 160 mm
Use for temperature range	from -165 °C* to +110 °C
Coefficient of resistance against water vapour diffusion	$\mu > 7000$
Thermal conductivity $\lambda$	0.040 W/(m·K) at +40 °C
Flammability	ČSN 73 0862 – B not easily flammable

- Industrial installations: the product can be installed at temperatures up to -198 °C; in the case of applications at below -40 °C, please contact our technical department.

### ASSORTMENT OF DIMENSIONS – insulation K-flex® ST is supplied in tubes with the length of 2 m, in a cardboard box with the size of 210 x 39 x 33 cm

Inner diameter (mm)	Quantity in box (m)					
	Wall th. 6 mm	Wall th. 9 mm	Wall th. 13 mm	Wall th. 19 mm	Wall th. 25 mm	Wall th. 32 mm
6	496	352	200	-	-	-
8	432	300	200	-	-	-
10	364	266	172	98	-	-
12	316	234	162	88	-	40
15	266	192	136	78	-	36
18	220	166	118	72	50	32
22	180	136	98	64	42	32
25	-	108	80	64	-	-
28	130	98	78	48	40	24
30	-	92	72	42	-	-
35	100	76	58	36	24	22
38	-	60	-	-	-	-
42	90	60	48	32	22	16
45	-	56	44	32	-	-
48	-	50	40	24	18	14
54	-	46	34	24	16	12
57	-	46	34	22	-	-
60	-	46	32	22	12	10
64	-	46	30	18	12	10
70	-	40	26	18	12	8
76	-	40	26	18	10	8
80	-	36	24	14	-	8
89	-	36	24	14	8	8
102	-	22	16	14	6	6
108	-	22	16	12	6	6
114	-	22	16	12	6	6
125	-	20	12	10	6	4
133	-	16	12	8	4	4
140	-	16	12	8	4	4
160	-	16	12	8	4	4



## **K-FLEX<sup>®</sup> ST** *surface elastomer insulation*

**K-FLEX<sup>®</sup> ST - thermal insulating sheets of synthetic rubber find their use in the area of cooling, air-conditioning, heating and air-handling. They are suitable for insulating tanks, piping of large diameters, air-handling ducts, etc. K-FLEX<sup>®</sup> ST sheet is made in the standard version or in the version with surface finish. All types can be provided with self-adhesive layer.**

- Easy and quick installation of large-size parts
- Protection of piping against condensation of water vapours
- Resistant against moulds and bacteria
- Free of HCFC - CFC, asbestos-free

### Technical parameters

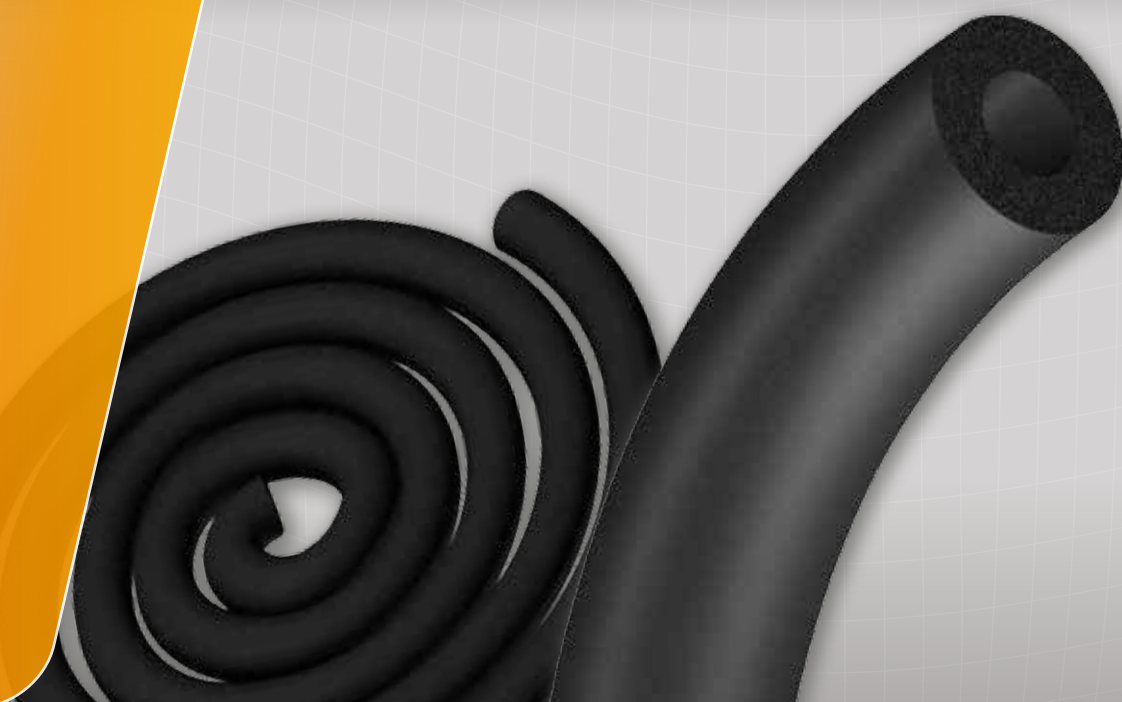
Width	1000 mm
Thickness	from 6 mm to 50 mm
Use for temperature range	from -165 °C* to +85 °C
Coefficient of resistance against water vapour diffusion	$\mu > 7000$
Thermal conductivity $\lambda$	0.040 W/(m·K) at +40 °C
Flammability	ČSN 73 0862 – B not easily flammable

- Industrial installations: the product can be installed at temperatures up to -198 °C; in the case of applications at below -40 °C, please contact our technical department.

### ASSORTMENT OF DIMENSIONS – sheet insulation K-flex® ST is supplied in tubes with the length of 1 m, in a cardboard box with the size of 55 x 55 x 105 cm

Thickness (mm)	Quantity in a box (m <sup>2</sup> )
6	30
10	20
13	14
16	12
19	10
25	8
32	6
40	4
50	4

On customer's request, this insulation can be made with self-adhesive layer or with another surface finish.



## K-FLEX<sup>®</sup> SOLAR

K-FLEX<sup>®</sup> SOLAR is insulation of special design for low-pressure piping with temperatures up to 150 °C. It is supplied in coils or as a tube.

- Ideal for industrial and solar systems
- Resistant against UV radiation

### Tube

Length	2 m
Wall thickness	13, 19, 25 and 32 mm
Inner diameter	from 10 mm to 89 mm

### Rolls

Length	25 m
Wall thickness	13 mm and 19 mm
For diameters	15 mm, 18 mm and 22 mm

### Technical parameters

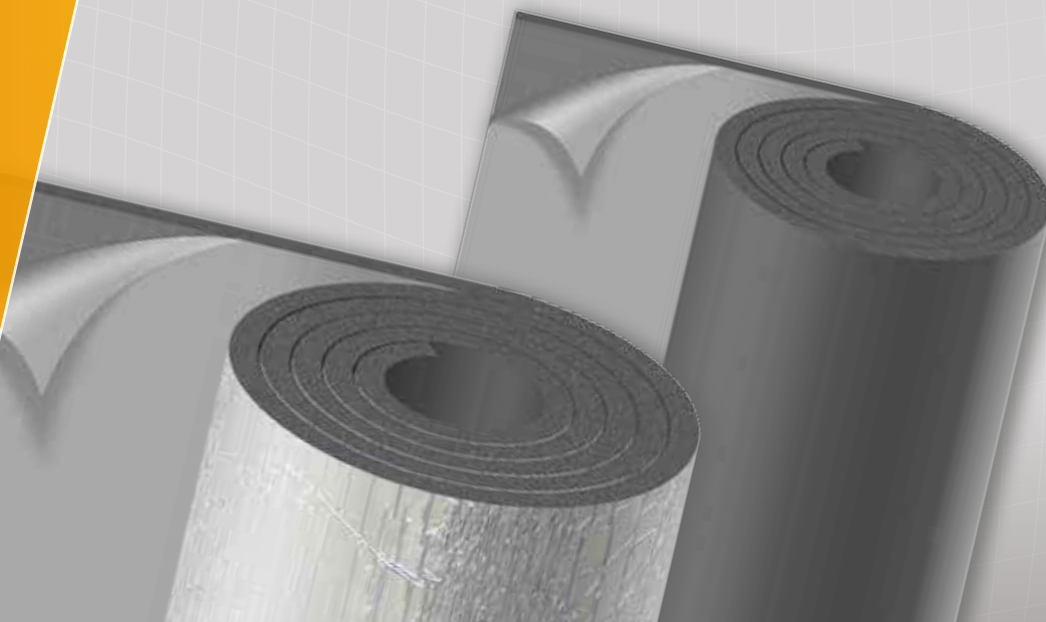
Use for temperature range $\lambda$	+150 °C
Thermal conductivity $\lambda$ W/(m-K) EN ISO 8497 (DIN 52613) EN 12667 (DIN 52612)	0 °C = 0.040 +40 °C = 0.044
Corrosion risks	DIN 1988/7, pH neutral
Flammability	B2 DIN 4102 (D)
Ecological parameters	halogen-free, PVC-free, CFC-free, HCFC-free, asbestos-free

### ASSORTMENT OF DIMENSIONS – tubes K-flex® SOLAR are supplied with the length of 2 m, in a cardboard box size of 210 x 39 x 33 cm

Inner diameter (mm)	Quantity in box (m)			
	Wall thickness 13 mm	Wall thickness 19 mm	Wall thickness 25 mm	Wall thickness 32 mm
10	140	-	-	-
12	130	80	-	-
15	112	64	-	-
18	98	58	42	32
22	84	64	36	32
28	64	48	32	24
35	50	36	24	22
42	40	32	24	16
48	32	24	20	14
54	32	24	18	12
57	-	-	-	12
60	28	16	18	10
76	24	18	12	8
89	18	16	12	8

### ASSORTMENT OF DIMENSIONS – K-flex® SOLAR coils are supplied in rolls, in a cardboard box with the size of 59 x 40 x 57 cm

Inner diameter (mm)	Quantity in box (m)	
	Wall thickness 13 mm	Wall thickness 19 mm
15	25	25
18	25	25
22	25	25



## **K-FLEX<sup>®</sup> H DUCT**

**K-FLEX<sup>®</sup> H DUCT is an insulating material on the basis of synthetic rubber, suitable for insulating components of air-conditioning and ventilating systems. The rubber sheet is designed as an alternative to mineral wool application. It brings new benefits for technological management of buildings in the form of easier installation and extension of service life of insulation of air-handling systems. As opposed to standard fibre-based insulating materials, the insulating sheet K-FLEX<sup>®</sup> H DUCT is made with the closed cell structure. Thanks to this design, it provides the advantage of thinner insulating layer and the possibility of applying the insulation piping already before installation of the piping - pre-insulated parts (shaped pieces).**

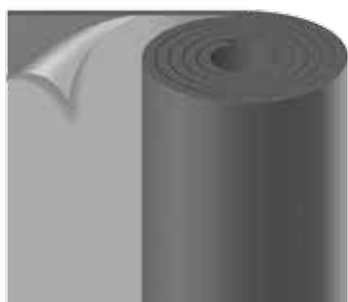
- financial savings, reduction in the costs of air-handling system insulation
- complies with fire-safety requirements on air-handling ducts
- quick and simple installation without the need to use any expensive tools - self-adhesive version with an increased adhesion to metals
- installation without cutting through the material, thanks to the width of the insulating sheet of 150 cm
- fibres are not released from the material
- HCFC - CFC-free, formaldehyde-free

### Technical parameters

Use for temperature range	up to +85 °C
Thermal conductivity $\lambda$ according to EN 12667 (DIN 52612)	0.031 W/(m-K) at -20 °C 0.033 W/(m-K) at 0 °C 0.035 W/(m-K) at +20 °C
Thermal conductivity $\lambda$ according to L10 EN 12667 (DIN 52612)	0.037 W/(m-K) at +40 °C
Flammability according to ČSN 73 0862	B - not easily flammable
Corrosion risks	DIN 1988/7, pH neutral
Coefficient of resistance against water vapour diffusion $\mu$ EN 12086 (DIN 52615)	$\mu \geq 7000$

**ASSORTMENT OF DIMENSIONS** – *K-flex® H DUCT and H DUCT METAL* are supplied in rolls with the width of 1.5 m, packaged in polyethylene bags

Thickness (mm)	Quantity in a box (m <sup>2</sup> )
6	45
10	30
12	22,5
15	18
20	15







H Duct self-adhesive sheet, grey



H Duct self-adhesive sheet, grey  
with the silver METAL foil  
surface finish








## PACKAGING OF TUBEX®, K-FLEX® INSULATION

TUBEX® assortment	Standard, Protekt	AL	Disk	Sonik
Box dimensions (cm)	205 x 60 x 40	100 x 60 x 40	56 x 44 x 44	105 x 50.5 x 50.5
Box volume (m <sup>3</sup> )	0.500	0.240	0.108	0.268
Box				





Mineral wool tubing	Dilatation	K-FLEX® tube - EC, ST, Solar	K-FLEX® Solar coil	K-FLEX® ST - sheets
100 x 50 x 51	120 x 70 x 70	210 x 39 x 33	59 x 40 x 57	105 x 55 x 55
0.255	0.588	0.264	0.135	0.318
				

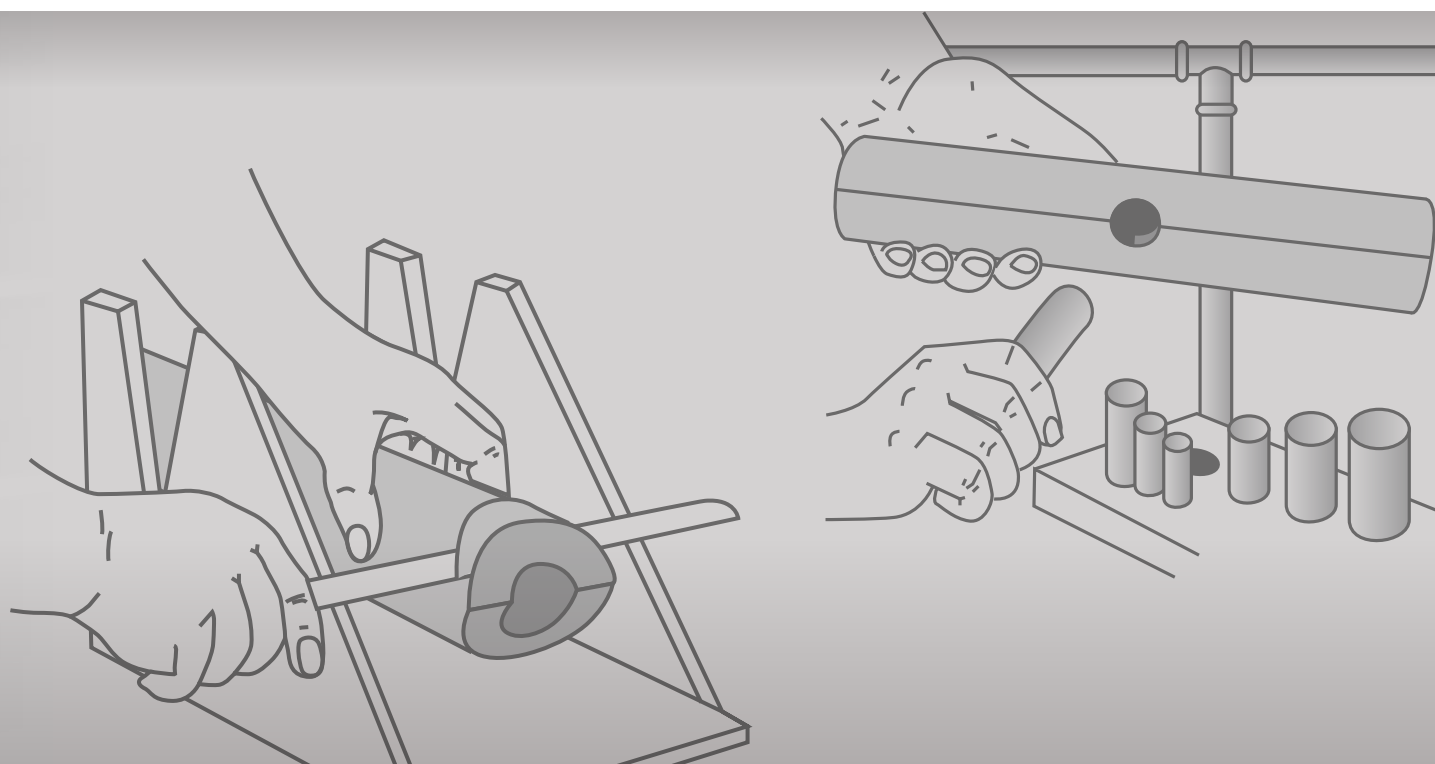


## TUBEX<sup>®</sup> ACCESSORIES

**We supply our assortment of insulating TUBEX<sup>®</sup> tubes with accessories for professional insulation of piping distributions of hot or cold water or other media.**

**For easy installation of the insulation, use original accessories.**

**Correct installation of insulation is the prerequisite for good and efficient functioning of the entire system.**



<i>Accessories</i>	<i>Packaging</i>
Assembly kit	PP bag
Chloroprene glue	tuba 130 ml, can 400 ml
Connecting clip	sack 100 pcs
Expanded self-adhesive tape 2 x 40 mm	roll 25 m
Expanded tape SONIK 3 x 40 mm	roll 25 m
Self-adhesive tape PVC 38 mm	roll 20 m
K-FLEX KNIFE	knife with 10 blades
K-FLEX glue	can 1 l
K-FLEX thinner	can 1 l
Aluminium tape 50 mm	roll 50 m
K-FLEX thertotape 3 x 50 mm	roll 15 m



*THERMAL AND ACOUSTIC  
POLYETHYLENE INSULATION*



**TUBEX<sup>®</sup>** – *PROFESSIONAL INSULATION*

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