KIMMCO ISOVER
SAINT-GOBAIN

LEADER IN SAFE AND
SUSTAINABLE INSULATION

One Stop Solution for all
HVAC Insulation

Glass Wool Elastomer Stone Wool

www.kimmco-isover.com

LEADER IN SAFE INSULATION

KIMMCO-ISOVER is a joint-venture between the international leader in construction products Saint-Gobain and Alghanim Industries which is one of the largest privately owned companies in the gulf region. KIMMCO-ISOVER mineral wool solutions are the preferred choice for most of the consultants, contractors and developers in different applications such as HVAC, Façade, Partition, Roof, Industrial, OEM and others.

OUR PRODUCTION CAPABILITIES CAN ALWAYS FULFILL YOUR DEMAND & STANDARDS

KIMMCO-ISOVER owns 2 factories to cover all the market requirements of Mineral Wool insulations, one in Kuwait for Glass Wool Insulation and another in Saudi Arabia for Stone Wool insulation. We're exporting our products to more than 30 countries in Asia, Levant and Africa.

GLASS WOOL PLANT

ISO 9001 ISO 14001 ISO 45001

Over 45 years of expertise in manufacturing and supplying glass wool product to markets in GCC, Asia, Africa and other regions

STONE WOOL PLANT

ISO 9001

Highly sustainable Stone wool manufacturing technology which reduces production wastage to almost Zero.

SAFE ELASTOMERIC FOAM INSULATION

6 GOOD REASONS TO INSULATE YOUR HVAC SYSTEM

1 - Prevent condensation damage

2 - Offer the greatest thermal comfort

3 - Create a pleasant acoustic environment

4 - Ensure fire safety

5 - Reduce the environmental footprint of your buildings

6 - Save on energy bills

Manufacturing Standards and Certifications

Benefits

THERMAL EFFICIENCY

KIMMCO-ISOVER has developed a range of Glass wool and stone wool HVAC insulation solutions that provide efficient thermal insulation for all HVAC equipment, ductwork, and pipes

Proper thermal insulation secures the designed temperature of the fluid (air or liquid) are maintained over a long period thus reducing energy wastages throughout the system. The insulation also helps to prevent the risk of condensation in systems. With a small investment in insulation, you can make significant savings in operating and maintenance, while also guaranteeing high level of thermal and acoustical comfort.

CONDENSATION

When the temperature of the fluid inside a duct or pipe is lower than the surrounding temperature, and in such areas where inefficient insulation, the chances of condensations are increased drastically when the surrounding humidity is high. KIMMCO-ISOVER solutions can eliminate condensation risks even with high temperature differences. KIMMCO-ISOVER insulation products for ducts and pipes have an outer facing that acts as vapour barrier.

ACOUSTICS

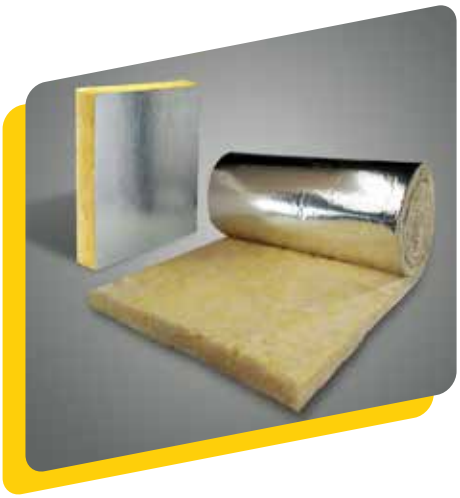
The sound generated by HVAC units and other equipment or air turbulence noise within the ducts, may cause discomfort to building users. To manage sound levels in HVAC installations, care should be taken during system selection and duct and pipe must be effectively insulated with right insulation product.

Glass mineral wool insulation due to its porous nature have an inherent acoustic property. KIMMCO-ISOVER offer insulation solutions to duct, pipes and AC units to enhance the acoustic comfort of those living and working within the building.

EFFECTIVE FIRE PROTECTION

Smoke, heat, and flames represent major fire risks to building occupants. The fire risk in a building is mainly influenced by the materials behave in a fire - from ignition to flashover till the fully developed fire to the cooldown phase. Evacuation or the efforts to save the building from fire is all dependent on the amount of time that is available from the starting of the fire will flashover. Flashover is the tipping point post this it saving life and properties is almost impossible. Hence it is very critical to use insulation material that have No flashover when tested according to EN13501.

Whether for schools, hospitals, shopping malls, offices, or residential buildings, KIMMCO-ISOVER has developed a range of HVAC insulation solutions that provide efficient insulation for HVAC ductwork and pipes. Using our HVAC insulation materials will help ensure your building is thermally protected with minimum noise disruption and maximum fire protection.



Solutions

Duct Wrap – Enhanced thermal comfort and energy saving

KIMMCO-ISOVER Duct insulation KDI: offers thermal performance with additional acoustic benefits. The product is available in rolls and slabs.

KIMMCO-ISOVER Duct insulation Plus KDIP: offer thermal performance with improved vapour resistance & high facing strength. No additional vapor barrier protection coating is required. The product is available in rolls and slabs.

EcoBuild Duct Insulation EDI: New generation of glass wool with superior indoor air quality and installers' comfort. The product is available in rolls and slabs.

Self-Seal: First & Only Self-Adhesive Glass Wool Insulation. For all types of HVAC metal duct insulation.

Duct Liner – Superior Acoustic Comfort

KIMMCO-ISOVER Clean Liner (KCL): Used as HVAC duct liner for efficient sound insulation. The product is available in rolls and slabs.

EcoBuild Clean Liner (ECL): EcoBuild offers added benefits of wellness and acoustic comfort. The product is available in rolls and slabs.

CLIMAVER All in one Self-Supporting Duct System for acoustic and thermal comfort

CLIMAVER Neto: lightweight and efficient duct system offering excellent acoustic performances besides superior thermal and fire properties.

CLIMAVER Plus R: HVAC duct system with good thermal and acoustic performance.

Insulation for Pipe works

KIMMCO-ISOVER Rigid Pipe Covering (K450+): Aluglass facing offers zero water vapour permeable and has excellent mechanical strength.

KIMMCO-ISOVER Rigid Pipe Covering (K450): improves thermal comfort, energy savings, keeping the medium temperature as designed, prevents condensation problems.

Fire Protection Insulation

KIMMCO-ISOVER SA Comfort Slab: used in passive fire protection in duct works like in exhaust duct. The product is available in rolls and slabs.

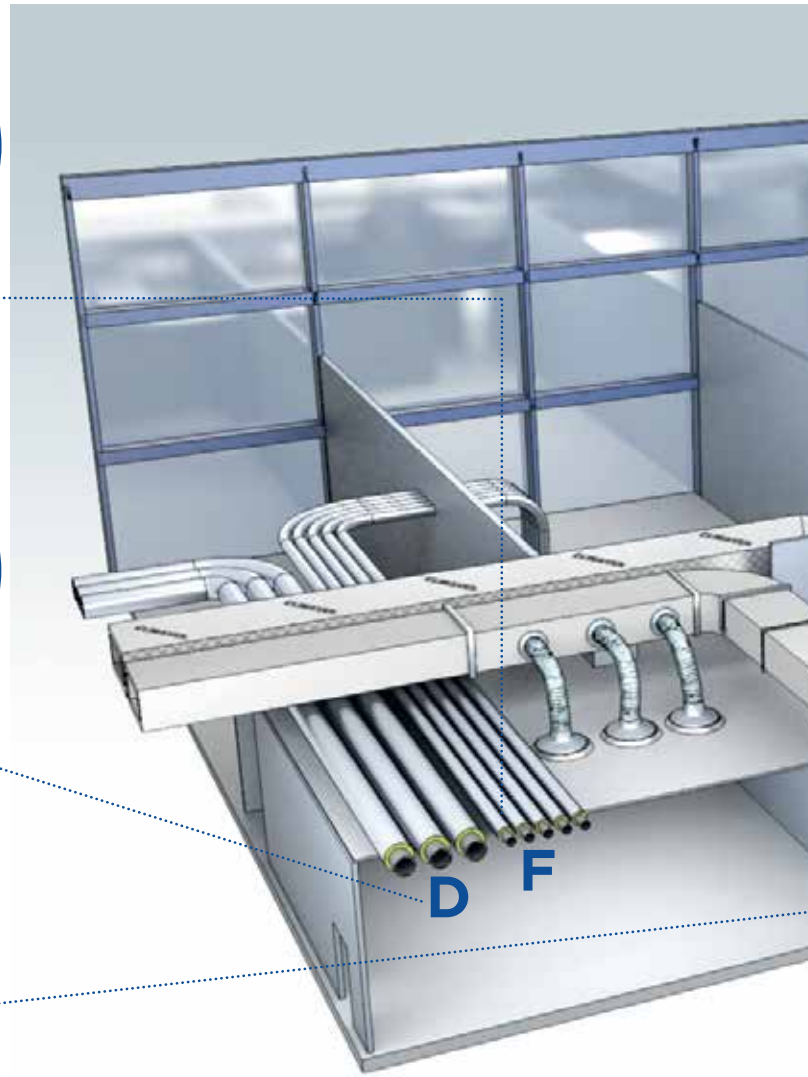
We offer a wide range of Glass wool and Stone wool insulation solutions for Thermal and Acoustic comfort, Fire safety and sustainability. The products are specifically designed and manufactured to address the needs of the market .

ELASTOMERIC Foam Insulation

KIMMCO-ISOVER **Elastomeric Foam (KIE)** closed-cell synthetic rubber insulation for a wide range of applications. It can be used for hot and cold pipes, for any system size and pipe diameters, and for all projects types.

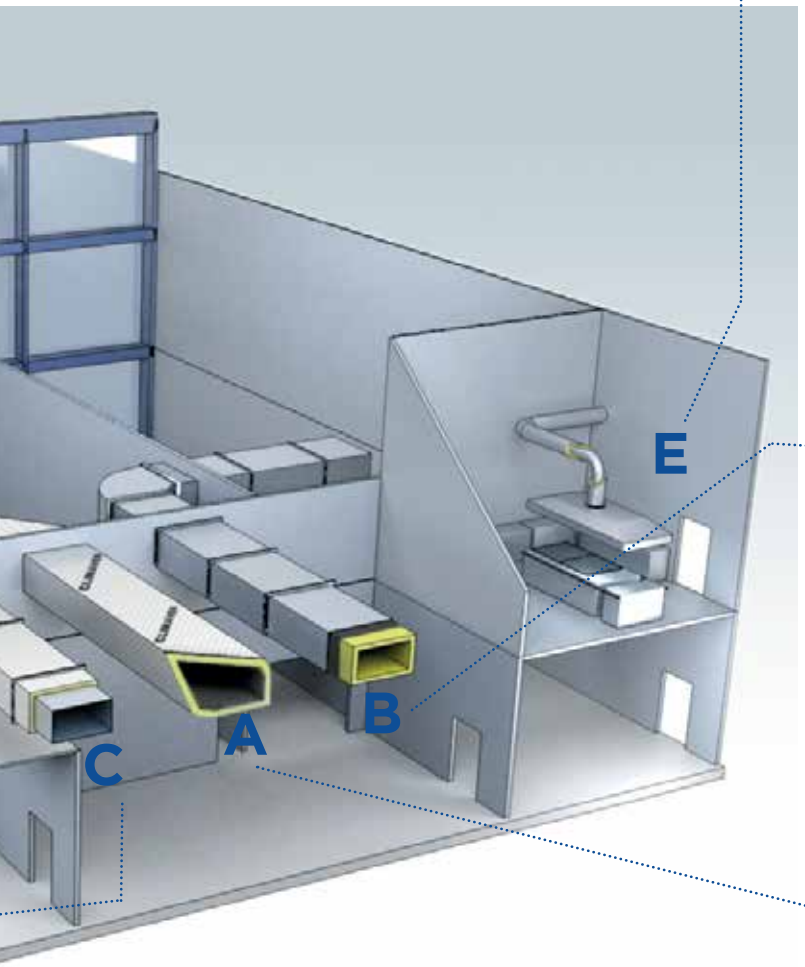
HVAC Pipe Insulation

KIMMCO-ISOVER pipe sections for insulation of HVAC water and other pipes. **K450 and K450+** provide high efficient thermal insulation and prevention of condensation.



HVAC Duct Wrap Insulation

Solutions to provide thermal insulation and prevent condensation on the outside of the metal duct. Wide range of products available with different facings - **KDI, KDIP, EDI, EDIP and Self-seal.**



Exhaust duct Insulation

KIMMCO-ISOVER
Stone wool solutions for providing fire resistance in kitchen exhaust and fire safety applications.

Duct Liner

Solutions for superior sound absorption and better sound treatment of air duct. KIMMCO-ISOVER product, **KCL** with special acoustic facings is installed inside the metal or other PID duct for noise control.

Self- Supporting Duct

CLIMAVER® solution is the easy-to install air duct alternative that provides high levels of noise control, thermal insulation, air tightness and UL fire rated.

KIMMCO ISOVER – HVAC products & Solutions

	Products	Features	Duct Wrap insulation to prevent Condensation & improve energy efficiency	Duct Liner to provide high acoustic benefits (sound absorption)	Pre-insulated duct system	Pipe insulation to prevent condensation and for acoustic benefits	Page No.
also available with Self-Seal	KDI	Standard product	✓				9
also available with Self-Seal	KDIP	Zero Perm and extra facing strength	✓				
also available with Self-Seal	EDI	Duct wrap with superior indoor air quality	✓				
also available with Self-Seal	EDIP	Duct wrap with superior indoor air quality with added facing strength	✓				
also available with Self-Seal	KCL	Duct liner for to reduce HVAC noise		✓			15
also available with Self-Seal	ECL	Acoustic comfort & Superior indoor air quality (IAQ)		✓			
	CLIMAVER Neto	Pre-insulated duct system for safe and enhanced Acoustic comfort			✓		18
	CLIMAVER Plus R	Pre-insulated duct system for safe and comfort			✓		
	K 450	Prevent condensation and Thermal insulation of steel, copper, or plastic pipes				✓	21
	K450+	Zero Perm and extra facing strength to prevent condensation Thermal insulation along				✓	
	Elastomer	Closed cell rubber insulation for HAVC ducts and pipes	✓			✓	

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Duct Wrap insulation to prevent Condensation & improve energy efficiency

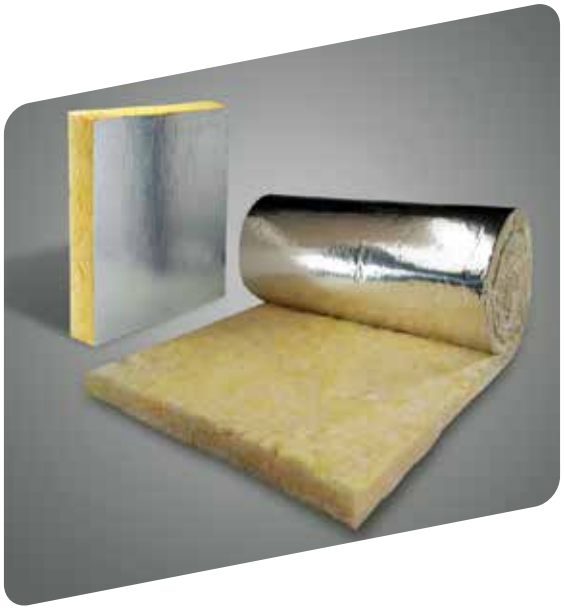
Duct wrap insulation to prevent Condensation and Improve energy efficiency

DUCT INSULATION (KDI)

Standard duct wrap with Aluminium foil/kraft facing (FSK)

APPLICATIONS

KDI are specifically produced for external insulation of rectangular and circular air ducting and air handling equipment to reduce the risk of condensation and for energy efficiency. KDI is available in the form of flexible rolls or slab.



FACING & COVERING

KDI is available a glass reinforced aluminium foil/Kraft laminate facing (FSK) which combines a pleasing appearance with excellent vapour resistance.

PERFORMANCES

• **WORKING TEMPERATURE**:
Fibre 230 °C; Foil Face 100 °C.

• **PERMANENCE**:
KDI has a high resistance to accident damage from knocks and handling during installation and maintenance. Dimensionally stable under varying conditions of temperature and humidity, rot proof, odourless, and non-hygroscopic.

• **COMBUSTIBILITY**:
Base fibers are non- combustible when tested in accordance with BS 476 (part 4), ASTM El 36.

Duct wrap insulation to prevent Condensation and Improve energy efficiency

Duct Insulation Plus (KDIP)

Zero Vapor permeability

APPLICATIONS

Thermal and acoustic insulation (external) of HVAC equipment and air distribution duct systems.

FACING & COVERING

• **WORKING TEMPERATURE**:
Fibres up to 230 °C; facing up to °100 C.

• **PERMANENCE**:
KIMMCO-ISOVER Duct insul plus has a high resistance to accident damage from knocks and handling during installation and maintenance. Dimensionally stable under varying conditions of temperature and humidity, rot proof, odourless, non-hygroscopic and will not sustain vermin and fungus. Easy to clean.

• **THERMAL CONDUCTIVITY**:
The thermal conductivity of fibreglass insulation products remains same throughout its lifetime because it is manufactured from natural minerals which neither deteriorates nor decays.

KDIP is with Aluglass facing has added advantages:

•**Achieves Zero Water vapour permeability** – better condensation control. So this system may not need additional vapour barrier. By avoiding highly laborious and costly canvas/open mesh glass cloth and vapour barrier coating, KDIP becomes more cost effective.

• **Aluminium foil laminated glass fabric (Aluglass)** facing protects the system from normal mechanical abuses.

• It has extremely high bursting strength of 270 psi i.e. 3-4 times higher than that of conventional facings. It has extremely high tensile strength of 14.5 KN/m i.e. 3-4 times higher than that of conventional facings.

• No water vapor can penetrate as ALUGLASS achieves zero water vapor permeability.

• KDIP can be used with no additional requirement of handling and weather protection such as application of canvas + vapor barrier. KDIP is compatible to direct painting.

EcoBuild Duct Insulation

EDI: New generation of glass wool with superior indoor air Quality (IAQ)

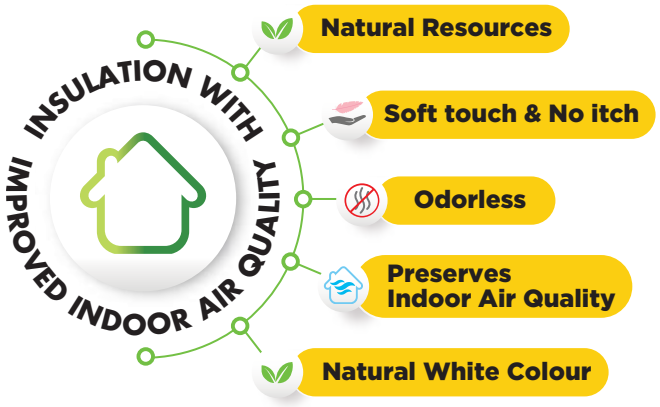
APPLICATIONS

HVAC duct wrap application for Thermal efficiency and to reduce the risk of condensation

DESCRIPTION

EcoBuild Duct Insulation (EDI) is in the form of flexible rolls, semi-rigid and rigid slabs manufactured from stable glass with green binder. Easy to handle and cut to fit rectangular ducts and air handling equipment. Dimensionally stable under varying conditions of temperature and humidity, rot proof, odourless, non-hygroscopic and will not sustain vermin and fungus.

UNIQUE FEATURES



FACINGS

EcoBuild Duct Insulation is available with aluminium foil/kraft scrim facing (FSK) which combines a pleasing appearance with excellent vapour resistance.

EcoBuild Duct Insulation

EDIP: Duct wrap with superior Indoor Air Quality(IAQ) with added facing strength

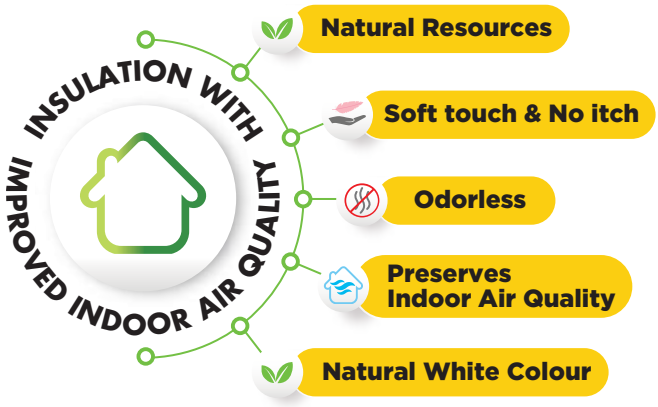
APPLICATIONS

HVAC duct wrap that supports superior Indoor Air Quality and best vapour resistance.

DESCRIPTION

EcoBuild Duct Insulation (EDIP) is in the form of flexible rolls, semi-rigid and rigid slabs manufactured from stable glass with green binder and ALUGLASS facing. Easy to handle and cut to fit rectangular ducts and air handling equipment. EDIP has a high resistance to accident damage from knocks and handling during installation and maintenance. Dimensionally stable under varying conditions of temperature and humidity, rot proof, odourless, non-hygroscopic and will not sustain vermin and fungus.

UNIQUE FEATURES



FACINGS

• EcoBuild Duct Insulation is available with a glass reinforced aluminium foil facing ALUGLASS for superior mechanical strength excellent vapour resistance “Zero Perm”

• ALUGLASS is aluminum foil laminated with glass fabric.

• It has extremely high bursting strength of 270 psi i.e. 3-4 times higher than that of conventional facings. It has extremely high tensile strength of 14.5 KN/m i.e. 3-4 times higher than that of conventional facings.

• ALUGLASS has high mechanical strength, durability, and dimensional stability.

• No water vapor can penetrate as ALUGLASS achieves zero water vapor permeability.

Self-Seal KDI and **Self-Seal** KDIP
for faster and safer application and installation

DESCRIPTION

Self Seal is a self-adhering Glass mineral wool roll and slab for thermal and acoustic insulation of HVAC ducts. Self-Seal completely eliminates the use of flammable liquid glue and improves greatly the ease and speed of installation thereby saving cost and time

Self-Seal insulation are resilient and light weight rolls and slabs with factory-laminated vapor retarder facings on the outer side and factory-applied self-adhesive layer on other side

SELF ADHESIVE GLASS MINERAL WOOL DUCT INSULATION

Rolls and Slabs

FAST INSTALLATION

Self-Seal sticks 100 % on the duct surface makes it very easy to apply and eliminates the use of glue and additional fastener pins.

THERMAL COMFORT

Minimum heat loss or gain through HVAC duct.

ACOUSTIC COMFORT

High level of acoustic performance against noise break-out from the duct.

FIRE SAFETY

Made from non-combustible glass mineral wool.

CONDENSATION CONTROL

Prevents condensation occurring on the vapor retarder facing.

Standards dimensions for KDI, KDIP, EDI and EDIP

Standard Dimensions

Availability	Thickness (mm)	Width (m)	Length (m)
Rolls	25, 40, 50, 75, 100	0.4, 0.6, 1.0, 1.2	10 to 45 according to the thickness & density
Slabs	25, 40, 50, 75, 100	1.2	1.0 to 2.4

Other dimension and/or thickness upon request

Nominal Density

KDI	kg/m^3	Lbs/ft^3	Availability
16	16	1	Rolls
24	24	1.5	Rolls or Slabs
36	36	2.25	Rolls* or Slabs
48	48	3	Rolls* or Slabs
64	64	4	Slabs

*Rolls according to the thickness

Thermal Conductivity

The low thermal conductivity of fiberglass products is due to the fact that they consist of more than 95% air which is trapped and kept stationary by the thin fibers below test values are tested as per ASTM C518.

Mean Temperature °F	Thermal Conductivity in Btu.in/ft^{2}h.F for the following densities in lbs/ft^3				
	1.000	**1.500**	**2.250**	**3.000**	**4.000**
32	0.23	0.21	0.20	0.20	0.21
50	0.25	0.22	0.21	0.21	0.23
77	0.27	0.24	0.22	0.22	0.23
122	0.31	0.27	0.25	0.24	0.24
167	0.35	0.30	0.27	0.26	0.26
212	0.40	0.33	0.30	0.29	0.29

Mean Temperature °C	Thermal Conductivity in W/m.K for the following densities in kg/m^3				
	16	**24**	**36**	**48**	**64**
0	0.034	0.031	0.029	0.029	0.030
10	0.036	0.032	0.030	0.030	0.031
25	0.039	0.035	0.032	0.031	0.032
50	0.044	0.039	0.036	0.035	0.036
75	0.051	0.043	0.039	0.037	0.038
100	0.057	0.047	0.043	0.041	0.043

These are typical values subject to normal manufacturing and testing variances

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Duct Liner to provide high acoustic benefits (sound absorption)

KCL
Duct liner for acoustic comfort – to block the noise from HVAC equipment.

APPLICATIONS

KCL is used to line air conditioning ducts, walls of acoustically sensitive areas to provide efficient sound insulation for any variety of structure, and/or sensitive facilities.

ACOUSTICAL PERFORMANCES

KCL is especially designed to provide exceptional sound absorption to acoustically sensitive environments and/or equipment as air-conditioning equipment, auditoriums, theatres, studios, acoustical building assemblies.

FACINGS

KCL is faced with a black, strong, durable, dimensionally stable woven glass fabric.

Standard Dimensions

Thickness (mm)	Width (m)	Length (m)	
		Roll	Board
15	1.2	20	1
25	1.2	20	1
40	1.2	20	1
50	1.2	20	1

Other Dimensions available.

Product Type	Thickness (mm)	Absorption Coefficient of one-third octave band center frequencies (Hz)						
		125	250	500	1000	2000	4000	NRC
KCL 24	25	0.12	0.32	0.70	0.93	0.95	0.99	0.75
	50	0.27	0.69	1.01	1.07	1.06	1.05	0.95
KCL 32	13	0.05	0.13	0.32	0.65	0.79	0.93	0.45
	25	0.29	0.45	0.77	1.00	0.93	0.96	0.80
	50	0.37	0.92	1.04	1.14	1.13	1.01	1.05
KCL 48	15	0.05	0.12	0.29	0.51	0.68	0.80	0.50
	25	0.16	0.32	0.82	1.02	1.05	1.00	0.85
	50	0.30	0.85	1.03	1.07	1.06	1.00	1.00
KCL 60	25	0.06	0.19	0.62	0.83	0.90	0.95	0.85
	50	0.21	0.75	1.00	1.00	1.00	0.95	1.10

Test in accordance with ASTM C423 using Type A mounting as per ASTM E795.
These are typical values subject to normal manufacturing and testing variances.

ECL
Duct liner for acoustic comfort – to reduce the noise from HVAC equipment with improved (IAQ)

APPLICATIONS

EcoBuild Clean Liner is used to line air conditioning ducts, acoustically sensitive areas to provide efficient sound insulation and also it enhances the IAQ.

FACINGS

KCL is faced with a black, strong, durable, dimensionally stable woven glass fabric.

ACOUSTICAL PERFORMANCES

KCL is especially designed to provide exceptional sound absorption to acoustically sensitive environments and/or equipment as air-conditioning equipment, auditoriums, theatres, studios, acoustical building assemblies.

UNIQUE FEATURES

Standard Dimensions

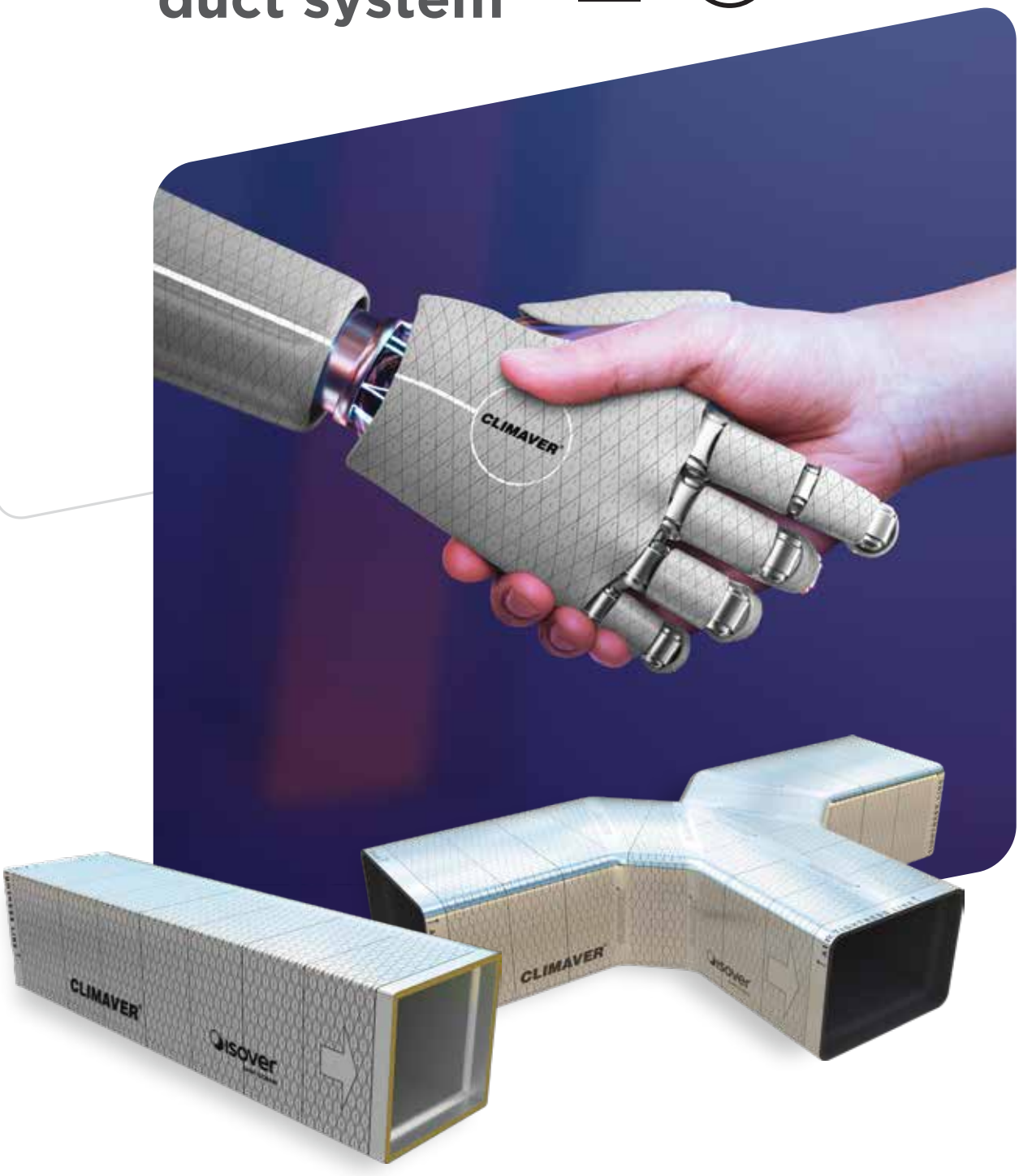
Thickness (mm)	Width (m)	Length (m)	
		Roll	Board
15	1.2	20	1
25	1.2	20	1
40	1.2	20	1
50	1.2	20	1

Other Dimensions available.

Product Type	Thickness (mm)	Absorption Coefficient of one-third octave band center frequencies (Hz)						
		125	250	500	1000	2000	4000	NRC
KCL 24	25	0.12	0.32	0.70	0.93	0.95	0.99	0.75
	50	0.27	0.69	1.01	1.07	1.06	1.05	0.95
KCL 32	13	0.05	0.13	0.32	0.65	0.79	0.93	0.45
	25	0.29	0.45	0.77	1.00	0.93	0.96	0.80
	50	0.37	0.92	1.04	1.14	1.13	1.01	1.05
KCL 48	15	0.05	0.12	0.29	0.51	0.68	0.80	0.50
	25	0.16	0.32	0.82	1.02	1.05	1.00	0.85
	50	0.30	0.85	1.03	1.07	1.06	1.00	1.00
KCL 60	25	0.06	0.19	0.62	0.83	0.90	0.95	0.85
	50	0.21	0.75	1.00	1.00	1.00	0.95	1.10

Test in accordance with ASTM C423 using Type A mounting as per ASTM E795.
These are typical values subject to normal manufacturing and testing variances.

Pre-insulated duct system



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CLIMAVER®

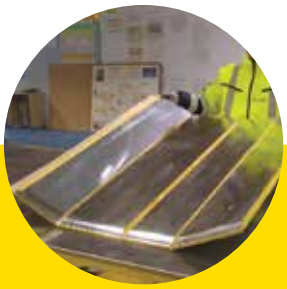
DUCT SYSTEM

More than a duct.
Much more than insulation.

The CLIMAVER® pre-insulated ductwork system solution enables you to meet the thermal, acoustic and fire performance requirements stipulated by today's stringent Building Regulations. Manufactured from glass mineral wool, the CLIMAVER insulated panels contain up to 80% recycled glass.

CHOOSE CLIMAVER®, YOUR ALL-INCLUSIVE DUCT SYSTEM

Made from dense and rigid glass wool boards, CLIMAVER® self-supporting air ducts are a cost-effective, easy-to-install alternative to traditional insulated metal ducts:



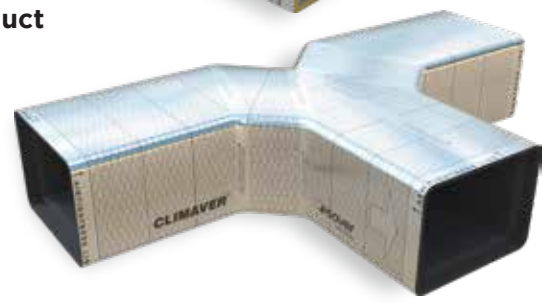
An all-in-one metal-free system, delivered flat on a pallet, and assembled in a single operation.

Duct sections are assembled easily, without the need for expensive machinery usually used on-site.

A shiplap on the edges ensures tight closure of the duct.

Key benefits of the CLIMAVER® system

- **Best in fire safety: Class 'O' and UL 181, ASTM certified product**
- **Excellent thermal and acoustic performances**
- **Precision-cut perfect joints**
- **Low air leakage rates and pressure drops**
- **Fast assembly and installation**
- **Adaptable to on-site changes**
- **. Inherent vapour barrier and airtightness**
- **Low installed cost compared to metal systems**
- **Greater productivity with on- or off-site fabrication, compared to traditional insulated metal systems**
- **Suitable for air speeds up to 18m/s and operating air pressure up to 800Pa**



A comprehensive range

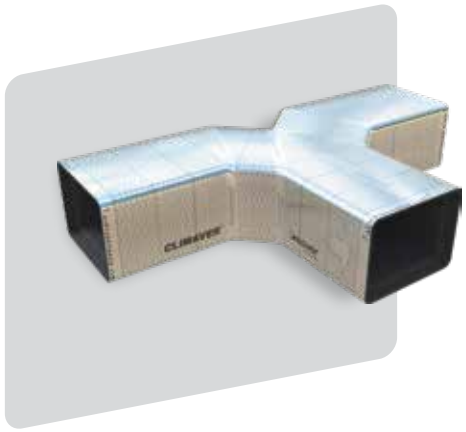
TO MEET ALL YOUR NEEDS

Whether you are looking for maximum energy efficiency, enhanced noise reduction or extra fire protection, you'll find a pre-insulated duct solution tailored to your project.

CLIMAVER neto®

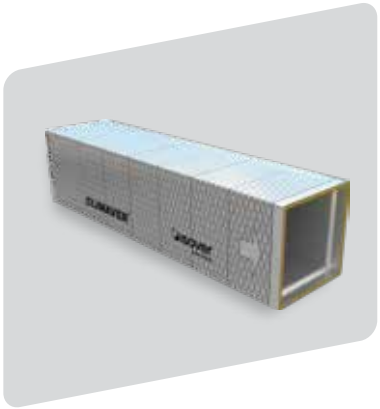
Characteristic	Symbol	Unit	Quantities and measured values						Standard
Application field	–	–	CLIMAVER® is a self-supporting duct for air-conditioning, ventilation and heating systems CLIMAVER® has been designed to offer excellent thermal performance, acoustics, fire safety and high level of air-tightness making the system energy efficient						EN 13403
Thermal conductivity	T	[°C]	10	20		40		60	EN 12667 EN 12939
	λ	[W/(m·K)]	0.032	0.033		0.036		0.038	
Fire behaviour	–	–	Non combustible, Euroclass B-s1, d0						EN 13501-1 EN 15715
Practical acoustic absorption coefficient, αP		Hz	125	250	500	1000	2000	4000	EN ISO 354 EN ISO 11654
	α		0.35	0.65	0.75	0.85	0.90	0.90	
	α_w		0.85						
Acoustic attenuation, in a straight duct, ΔL (DB/m)*	Section [mm]	200 x 200	4.83	11.49	14.04	16.73	18.12	18.12	
		300 x 400	2.82	6.70	8.19	9.76	10.57	10.57	
		400 x 700	1.90	4.51	5.51	6.57	7.12	7.12	
			$\Delta L = 1.05 \cdot \alpha_p^{1.4} \cdot P/S$ For the sound power of a ventilator with a 20,000 m³/h flow, load loss 15 mm.w.g.						
Water vapour resistance	–	m²·h·Pa/mg	140						EN 12086
Airtightness	–	–	Class D						EN 1507 EN 12237
Resistance to pressure	–	Pa	800						EN 13403
Pressure losses	–	Pa	For normal HVAC system air speeds pressure drops are similar to metal ducts						–
Dimensional stability	–	%	Quantities and measured values : < 1						EN 1604
Quality management	–	–	ISOVER is certified according to EN ISO 9001 and EN ISO 14001						EN ISO 9001 EN ISO 14001

BEST IN CLASS IN ACOUSTIC PERFORMANCE



CLIMAVER PLUS R®

BEST IN CLASS IN AIR TIGHTNESS PERFORMANCE



Characteristic	Symbol	Unit	Quantities and measured values						Standard
Application field	–	–	CLIMAVER® is a self-supporting duct for air-conditioning, ventilation and heating systems CLIMAVER® has been designed to offer excellent thermal performance, acoustics, fire safety and high level of air-tightness making the system energy efficient						EN 13403
Thermal conductivity	T	[°C]	10	20		40		60	EN 12667 EN 12939
	λ	[W/(m·K)]	0.032	0.033		0.036		0.038	
Fire behaviour	–	–	Non combustible, Euroclass B-s1, d0						EN 13501-1 EN 15715
Practical acoustic absorption coefficient, αP		Hz	125	250	500	1000	2000	4000	EN ISO 354 EN ISO 11654
	α		0.20	0.20	0.20	0.60	0.50	0.40	
	α_w		0.30						
Acoustic attenuation, in a straight duct, ΔL (DB/m)*	Section [mm]	200 x 200	2.21	2.21	2.21	10.27	7.96	5.82	
		300 x 400	1,29	1,29	1,29	5.99	4.64	3.40	
		400 x 700	0.87	0.87	0.87	4.04	3.13	2.29	
			$\Delta L = 1.05 \cdot \alpha_p^{1.4} \cdot P/S$ For the sound power of a ventilator with a 20,000 m³/h flow, load loss 15 mm.w.g.						
Water vapour resistance	–	m²·h·Pa/mg	140						EN 12086
Airtightness	–	–	Class D						EN 1507 EN 12237
Resistance to pressure	–	Pa	800						EN 13403
Pressure losses	–	Pa	For normal HVAC system air speeds pressure drops are similar to metal ducts						–
Dimensional stability	–	%	Quantities and measured values : < 1						EN 1604
Quality management	–	–	ISOVER is certified according to EN ISO 9001 and EN ISO 14001						EN ISO 9001 EN ISO 14001

***CLIMAVER*® *U* is UL181 certified system. It is mandatory to use UL approved accessories to have UL 181 certification valid. Contact us to know about UL certified accessories**

Pipe insulation to prevent condensation and for acoustic benefits

Pipe Insulation: Condensation and Thermal insulation of steel, copper or plastic pipes- Acoustic (K450)

APPLICATIONS

Thermal insulation of steel, copper or plastic pipes operating in temperature up to 232 °C. The product can also be used for pipe acoustics.

DESCRIPTION

Pre-Formed sections of glass fibers bonded with a heat resistant resin, free from shot and coarse fiber, light, damage resistant, easy to handle, cut and fit. The sections are split along their lengths to provide a hinge for ease of fitting.

FACINGS

K450 Coverings can be supplied plain or with Glass Reinforced Aluminum Foil/Kraft Paper laminate (FSK), Aluglass and white ASJ.

Normal Density

K450	Kg/m³	Lbs/ft³
64	64	4.0
72	72	4.5
80	80	5.0
96	96	6.0
120	120	7.5

Other densities are available on request

PIPE SIZES

STEEL PIPES TO BS 1387, BS 3600 AND ANSI / ASTM B 1985- 36.10

PIPE SIZE				NOMINAL WALL THICKNESS								
NOM.BORE		O.D.		mm	20	25	30	40	50	60	75	100
mm	inch	mm	inch	inch	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
10	3/8	17	11/16		*	*	*	*	–	–	–	–
15	1/2	21	27/32		*	*	*	*	*	–	–	–
20	3/4	27	1 1/16		*	*	*	*	*	*	*	–
25	1	34	1 11/32		*	*	*	*	*	*	*	–
32	1 1/4	42	1 11/16		*	*	*	*	*	*	*	–
40	1 1/2	48	1 29/32		*	*	*	*	*	*	*	–
50	2	60	2 3/8		*	*	*	*	*	*	*	*
65	2 1/2	76	3		*	*	*	*	*	*	*	*
80	3	89	3 1/2		*	*	*	*	*	*	*	*
90	3 1/2	102	4		*	*	*	*	*	*	*	*
100	4	114	4 1/2		–	*	*	*	*	*	*	*
114	4 1/2	127	5		–	*	*	*	*	*	*	*
125	5	140	5 1/2		–	*	*	*	*	*	*	*
150	6	166	6 1/2		–	*	*	*	*	*	*	*
200	8	219	8 5/8		–	*	*	*	*	*	*	*
250	10	273	10 3/4		–	*	*	*	*	*	*	*
300	12	324	12 3/4		–	*	*	*	*	*	*	*
350	14	356	14		–	*	*	*	*	*	*	*
400	16	406	16		–	*	*	*	*	*	*	*
450	18	457	18		–	*	*	*	*	*	*	*
500	20	508	20		–	*	*	*	*	*	*	*
550	22	559	22		–	*	*	*	*	*	*	*
600	24	610	24		–	*	*	*	*	*	*	*
Up to	36	914	36		–	*	*	*	*	*	*	*

COPPER TUBES TO BS 2871, ASTM B88M

PIPE SIZE				NOMINAL WALL THICKNESS								
NOM.BORE		O.D.		mm	20	25	30	40	50	60	75	100
mm	inch	mm	inch	inch	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
–	1/2	15	0.596		*	*	*	*	*	*	*	*
–	3/4	22	0.846		*	*	*	*	*	*	*	*
–	1	28	1.112		*	*	*	*	*	*	*	*
–	1 1/4	35	1.362		*	*	*	*	*	*	*	*
–	1 1/2	42	1.612		*	*	*	*	*	*	*	*
–	2	54	2.128		*	*	*	*	*	*	*	*
–	2 1/2	67	2.628		*	*	*	*	*	*	*	*
–	3	76	3.000		*	*	*	*	*	*	*	*
–	3	80	3.144		*	*	*	*	*	*	*	*
–	3 1/2	93	3.660		–	*	*	*	*	*	*	*
–	4	108/105	4.184		–	*	*	*	*	*	*	*
–	5	133/130	5.184		–	*	*	*	*	*	*	*
–	6	159/156	6.208		–	*	*	*	*	*	*	*

Up to 12 inch

NOTE: STEEL & COPPER PIPES

1. Other thickness and bores subject to special enquiry.
2. The section thickness is nominal radial thickness subject to manufacturing tolerance and is exclusive of surface finish.

KIMMCO ISOVER SAINT-GOBAIN

Pipe Insulation: Condensation and Thermal insulation of steel, copper or plastic pipes- Acoustic (K450 Plus)

APPLICATIONS

Thermal insulation of steel, copper or plastic pipes operating in temperature up to 232°C (450° F. Fiberglass pipe section faced with ALUGLASS Facing will provide

- A substitute for conventional thermal insulation products that require costly & labour intensive work at site, e.g. Protection of pipe insulation by additional weather proofing.
- An ideal substitute for conventional thermal insulation practices.
- ALUGLASS facing provides factory applied thermal sealing system.

DESCRIPTION

Preformed sections of glass fibers bonded with a heat resistant resin, free from shot and coarse fiber, light, damage resistant, easy to handle, cut and fit. The sections are split along their lengths to provide a hinge for ease of fitting.

FACINGS

Aluminium Foil / Glass Cloth laminate (ALUGLASS).

Thermal Conductivity

Test in accordance with ASTM C335

Mean Temperature °C	Thermal Conductivity in W/m.K for the following densities in kg/m^3				
	64	72	80	96	120
10	0.029	0.029	0.030	0.031	0.032
25	0.030	0.030	0.032	0.032	0.033
50	0.032	0.032	0.033	0.035	0.036
100	0.040	0.041	0.039	0.038	0.039
100	0.050	0.050	0.047	0.044	0.045

SILENT FEATURES

- K450 plus is faced with factory applied ALUGLASS facing.
- ALUGLASS is aluminium foil laminated with glass fabric.
- It has extremely high Bursting strength of 270 psi, i.e., 3-4 times higher than that of conventional facings.
- It has extremely high tensile strength of 14.5 KN/m, i.e., 3-4 times higher than that of conventional facings.
- ALUGLASS has mechanical strength, durability, and dimensional stability.
- No water vapour can penetrate, as ALUGLASS achieves zero water vapour permeance.
- K450 plus can be used with no additional requirements for handling or weather protection, such as the application of canvas + vapour barrier.
- K450 plus are rot-proof, resists the effects of moisture, and will not decompose through continual exposure to the elements.
- K450 plus will not shrink due to age or temperature variations.
- K450 plus will maintain its thermal properties through the life time of the construction.
- K450 plus are compatible to direct painting. Recommended to use only anti-fungal and anti-bacterial paints in areas where services are exposed, like malls, exhibition centres, etc., for an aesthetic finish. This will save on costly metallic cladding.

SAFE ELASTOMERIC FOAM INSULATION for HVAC Ducts & Pipes

PROVIDING SOLUTIONS TO MODERN BUILDINGS

ELASTOMER

According to a study, an average person spends over 80% of the time indoor.. People spend more time indoor than before, which increase tremendously the demand for comfort & energy efficient buildings for better and health wellbeing.

THERMAL COMFORT

Minimum heat loss or gain through HVAC duct.

ACOUSTIC PERFORMANCE

High level of acoustic performance against noise break-out from the duct.

PREVENTS CONDENSATION

Prevents condensation occurring on the vapor retarder facing.

FIRE SAFETY

Made from non-combustible glass mineral wool.

SUSTAINABILITY

Buildings have a massive impact on the environment, both in their construction and throughout their life.

ANTI-MICROBIAL FINISH

Provides effective protection against moisture penetration, is naturally anti-microbial and resistant to mould growth.

KIMMCO ISOVER SAINT-GOBAIN

Tested and certified – very good technical attributes

Extensively tested and internationally certified, KIMMCO-ISOVER Elastomeric Foam features broad usability and technical characteristics of the highest standard. Thanks to its very low thermal conductivity K-Value (λ) 0.033 (W/m•K) at 35°C and outstanding water vapour diffusion resistance of up to μ ≥ 7000. KIMMCO-ISOVER Elastomeric Foam insulation is highly energy-efficient and reliably in preventing condensation. KIMMCO-ISOVER elastomer insulation also meets the highest safety requirements regarding fire behavior. The stringent KIMMCO-ISOVER process standardization ensures the technical characteristics remain consistently high across the full range of insulation thicknesses and a reliable performance over the entire period of operation.

WIDE RANGE OF PRODUCTS

KIMMCO-ISOVER Elastomeric Foam is available in pipes and sheets, as a standard or self-adhesive product. The products are available with other facing options such as Aluminum facing or Aluglass facing. KIMMCO-ISOVER elastomeric insulation material can be easily and quickly be installed even in difficult installations and where there is space constrains in every kind for applications

WIDE RANGE OF APPLICATIONS

REFRIGERATION

VENTILATION AND AIR CONDITIONS

CHILLED PIPES

PLUMBING

Tubes Per Carton

INSULATION ID		WALL THICKNESS				
		3/8" (9 mm)	1/2" (13 mm)	3/4" (19 mm)	1" (25 mm)	1-1/4" (32 mm)
INCHES	MM	QUANTITY PER CARTOON/ BOX				
1/4	6	168	90	50	35	15
3/8	10	130	80	40	25	15
1/2	13	115	65	40	25	15
5/8	16	90	60	35	20	12
3/4	19	76	45	30	20	12
7/8	22	70	40	30	20	12
1	25	55	40	25	20	12
1-1/8	29	55	36	25	18	12
1-1/4	32	40	30	20	15	12
1-3/8	35	36	30	20	15	12
1-1/2	38	30	24	17	12	10
1-5/8	41	30	25	17	12	8
1-7/8	48	25	20	15	10	8
2	51	25	20	15	9	8
2-1/8	54	25	20	15	9	8
2-3/8	60	20	18	12	9	7
2-1/2	64	20	15	10	8	7
2-5/8	67	20	15	10	8	7
2-7/8	73	***	15	10	6	6
3	76	***	12	10	6	6
3-1/8	79	***	12	10	6	6
3-1/2	89	***	10	8	6	4
4	102	***	6	6	4	4
4-1/8	105	***	6	6	4	4
4-3/8	111	***	6	6	4	4
4-1/2	114	***	6	6	4	4

Standard Sizes

Sheet Thickness	Roll Length M	Width M	Available facings
6 MM KIE Sheet	30	1	Plain, Aluminum, Aluglass, Preclad- With or without Self-adhesive option
9 MM KIE Sheet	20	1	
13 MM KIE Sheet	14	1	
19 MM KIE Sheet	10	1	
25MM KIE Sheet	8	1	
32 MM KIE Sheet	KIE Sheet	1	
38 MM KIE Sheet	4	1	
50 MM KIE Sheet	4	1	

KIMMCO ISOVER
SAINT-GOBAIN

04/ 2025