



insulflex[®]

**HIGH QUALITY
CLOSED CELL INSULATION**
For Air-Conditioning, Heating & Refrigeration





Application

High Quality Closed Cell Tubing And Sheet Insulation For Air Conditioning, Heating, Refrigeration and Dual Temperature Lines

Description:

Insulflex is a flexible and light weight elastomeric nitrile rubber material designed for thermal insulation. Insulflex insulation is black in colour, available in tubing and sheet form. The extruded flexible tubings are specially designed to fit the standard diameters of steel and copper pipings. Sheets are available in standard precut sizes or in rolls.

Uses:

Insulflex expanded closed cell structure provides the ideal and most efficient vapour barrier for the prevention of condensation or frost formation on cooling systems, chilled water and refrigerant lines.

Insulflex also retards heat loss for hot water plumbing and heating, dual temperature piping and solar systems. It protects pipes by acting as a vibration damper and giving protection against corrosion by atmospheric and industrial environment.

Insulflex inherent flexibility makes it ideally suited for the insulation of large surface area such as tanks, irregular shaped vessels, air-ducts and large diameter pipes.

Insulflex sheets and roll insulation are extremely flexible and especially adaptable to insulating ductwork, chillers, tanks, vessels and large pipes. It is the same high quality, elastomeric closed cell thermal insulation material as Insulflex tubing.

Characteristics and Advantages:

Insulflex insulation material has been specially designed to provide the following features:

- Its low thermal conductivity (k value) which makes it highly efficient and effective in the insulation of cooling or heating systems.
- The hermetic blister closed cell structure forms an impermeable layer which is in itself a good vapour barrier.
- It is suitable for application within the temperature range of -40deg to + 105deg C.
- The material has been specially compounded to be self extinguishing in nature.
- Insulflex has excellent ozone and ultraviolet ray resistance.
- It is CFC, chlorine and fibre free and does not cause skin allergy.
- It is also inert to majority of chemical agents and neutral to pipe metals.
- The extreme flexibility of the material makes installation fast, easy and economical.
- It is able to withstand tearing, rough handling and severe site conditions.
- Much lesser space is needed for Insulflex as a thinner wall is required due to its low k value as compared to other types of insulation.
- The smooth surface of Insulflex material gives the finished insulation a neat aesthetic appearance. No coating is needed on most indoor installations.



Product

Tubing Sizes

INSULFLEX		COPPER PIPE		IRON PIPE		TUBING - UNIT LENGTH 2 METRES / 6 FEET											
Nominal Insulation Size ID		Nominal Size OD		Nominal Size IPS		Nominal 6mm wall		Nominal 10mm wall		Nominal 13mm wall		Nominal 19mm wall		Nominal 25mm wall		Nominal 32mm wall	
mm	inch	mm	inch	mm	inch	Pcs /Ctn	Total Mtrs /Ctn	Pcs /Ctn	Total Mtrs /Ctn	Pcs /Ctn	Total Mtrs /Ctn	Pcs /Ctn	Total Mtrs /Ctn	Pcs /Ctn	Total Mtrs /Ctn	Pcs /Ctn	Total Mtrs /Ctn
6	1/4	6	1/4	-	-	250	500	168	336	120	240	48	96	-	-	-	-
10	3/8	10	3/8	-	-	200	400	120	240	100	200	36	72	30	60	-	-
13	1/2	13	1/2	6	1 3/4	150	300	100	200	80	160	30	60	28	56	-	-
16	5/8	16	5/8	10	3/8	120	240	90	180	63	126	30	60	24	48	-	-
19	3/4	19	3/4	-	-	100	200	72	144	56	112	26	52	20	40	-	-
22	7/8	22	7/8	13	1/2	90	180	65	130	42	84	24	48	20	40	-	-
25	1	25	1	-	-	80	160	49	98	36	72	20	40	18	36	14	28
29	1 1/8	29	1 1/8	-	-	-	-	49	98	36	72	20	40	18	36	14	28
32	1 1/4	32	1 1/4	-	-	-	-	42	84	30	60	20	40	16	32	12	24
35	1 3/8	35	1 3/8	25	1	-	-	36	72	30	60	18	36	15	30	12	24
42	1 5/8	42	1 5/8	32	1 1/4	-	-	30	60	25	50	16	32	12	24	10	20
48	1 7/8	48	1 7/8	38	1 1/2	-	-	28	56	20	40	12	24	10	20	8	16
51	2	51	2	-	-	-	-	24	48	20	40	12	24	9	18	7	14
54	2 1/8	54	2 1/8	-	-	-	-	20	40	18	36	12	24	9	18	7	14
60	2 3/8	60	2 3/8	51	2	-	-	20	40	18	36	9	18	9	18	6	12
67	2 5/8	67	2 5/8	-	-	-	-	18	36	13	26	8	16	8	16	6	12
73	2 7/8	73	2 7/8	64	2 1/2	-	-	18	36	13	26	8	16	8	16	6	12
76	3	76	3	64	2 1/2 (B.S)	-	-	18	36	12	24	8	16	8	16	6	12
79	3 1/8	79	3 1/8	-	-	-	-	15	30	12	24	6	12	6	12	5	10
89	3 1/2	89	3 1/2	76	3	-	-	15	30	12	24	6	12	6	12	5	10
101	4	101	4	-	-	-	-	-	-	-	-	-	-	-	-	6	6
114	4 1/2	114	4 1/2	-	-	-	-	-	-	-	-	-	-	6	-	6	6

STANDARD FLAT SHEETS

Nominal Thickness		Size		No. of Sheets Per Carton	Total Area Per Ctn	
mm	inch	m	ft		m ²	ft ²
3	1/8	1.22x0.914	4x3	80	89.20	960
6	1/4	1.22x0.914	4x3	40	44.60	480
9	3/8	1.22x0.914	4x3	26	28.99	312
13	1/2	1.22x0.914	4x3	20	22.30	240
15	5/8	1.22x0.914	4x3	16	17.84	192
19	3/4	1.22x0.914	4x3	14	15.61	168
25	1	1.22x0.914	4x3	10	11.15	120
31	1 1/4	1.00x1.220	3.281x4	8	9.76	104
38	1 1/2	1.00x1.220	3.281x4	7	8.54	91
50	2	1.00x1.220	3.281x4	5	6.1	65

CONTINUOUS ROLLS

Nominal Thickness		Size Per Roll		Total Area Per Roll	
mm	inch	m	ft	m ²	ft ²
3	1/8	1.22x9.14	4x30	11.15	120
6	1/4	1.22x9.14	4x30	11.15	120
9	3/8	1.22x9.14	4x30	11.15	120
13	1/2	1.22x9.14	4x30	11.15	120
15	5/8	1.22x9.14	4x30	11.15	120
19	3/4	1.22x9.14	4x30	11.15	120
25	1	1.22x9.14	4x30	11.15	120
31	1 1/4	1.00x9.14	3.281x30	9.14	98.43
38	1 1/2	1.00x9.14	3.281x30	9.14	98.43
50	2	1.00x9.14	3.281x30	9.14	98.43



Specifications

AVERAGE PHYSICAL PROPERTIES	RATING	TEST METHODS
Density	80 to 120 kg/m ³ (5 – 8 lb/cuft)	ASTM D 1667
Thermal Conductivity at 20° mean temp.	0.037 W/mK (0.26BTU.in/hr.ft ² . ° F)	ASTM C 177
Temperature Limits ° C	-40° C to +105° C	-
Water Absorption	0.27% (By Volume) 3% (By Weight)	ASTM D 1056
Water Vapour Diffusion Resistance Factor	>5000	DIN 52615
Ozone Resistance	Excellent	-
Thermal Stability 7 days (% shrinkage) 200° F 7 days 220° F	4.5 5.5	ASTM C 548
Average Fire Propagation Average Spread of Flame Average time of burning Flexibility	CLASS 0 CLASS 1 Less than 5 seconds Excellent	BS 476 PART 6 BS 476 PART 7 ASTM D 635 - 91
Ozone (UV) Resistance And Weather Resistance	Excellent 50pphm/72hrs/40 C	ASTM D 1171
Vertical Burning Test for Flammability of Materials	Within range of UL test requirements	UL 94 (V-0) (Underwriters Laboratories Inc.)
Smoke Density Rating	Within Limits	ASTM D 2843
Evolved Gas During Burning	No Halogen and Nitrosamine Detected	DIN 5346
Noise reduction (Noise Absorption)	NRC 0.14	AS 1045-1988
Oil and Grease Resistance	Excellent	-
Toxicity – Heavy Metals	Not Detected	USEPA 3052 ICP-OES
Elongation, Tensile And Flexibility	Excellent	-
Chemical Resistance	Excellent	-
Odour	Negligible	-
Electricity Conductance	No	-
Surface and Physical Properties	Tuff Skin Not easy broken/torn	
Mildew Resistance	Not Fungal Growth	-

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Why Use Insulflex ?

- Low thermal conductivity or "K" value.
- Its closed cell nature requires lower thickness compared to other products of same density, thus cost saving.
- No jacketing/vapour barrier is required due to the tough skin formed during the manufacturing process. In comparison other insulation products such as glasswool require a layer of jacketing to prevent water moisture which will affect the "K" value.
- "K" value is very stable due to the closed cell nature compared to other products.
- Flexibility enables perfect insulation to fit bend and irregular pipes.
- Closed cell is non-hazardous. No precaution is needed in handling and installing the product.



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Insulation Tape

HIGH QUALITY INSULATION FOAM TAPE SELF ADHESIVE, RETARD HEAT LOSS AND PREVENT CONDENSATION ON HOT AND COLD WATER PIPES.



INSULFLEX INSULATION TAPE

Self adhesive CFC free synthetic rubber adhesion based insulating tape for strong bonding and longer durability and yet retaining it's insulating properties. Ideal foe insulating fittings, short pipe length, valves etc. It is quick and easy to apply.

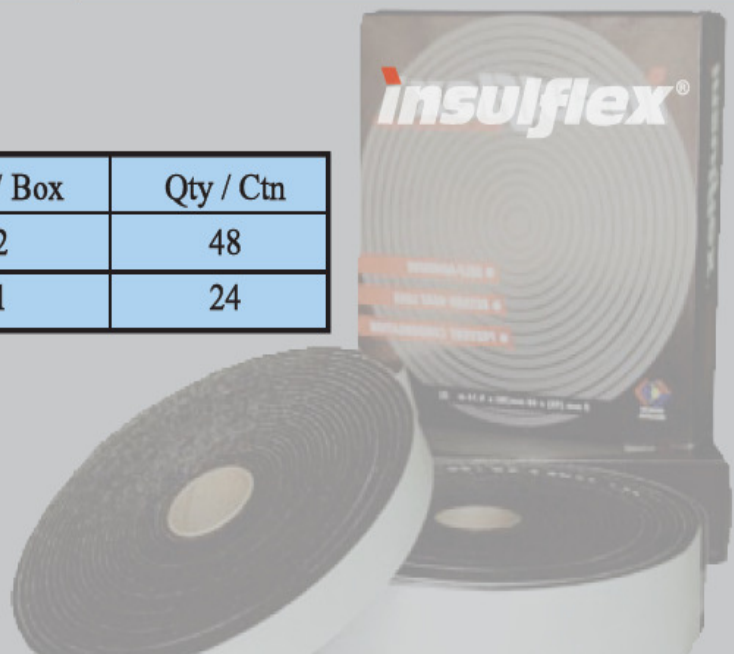
insulflex Insulation Foam Tape adhere firmly to all types of pipe metal surface. There is no worry on the problem of delamination as the adhesive side is made of very high quality synthetic rubber based material.

Product Specification And Application

Temperature Range : -20° C to 80° C	Thermal Conductivity λ 0.037 W/ (m k) at 20° C
Adhesive Surface : Synthetic Rubber	Fire Rating (Tape) : BS 476 Part 7 - Class 1
Adhesion Strength : 1000g/25 mm area	Ozone Resistance : ASTM D 1171 - Good
	Against Oil & Grease : Good

Sizes (Nominal) and Packing

Size	Qty / Box	Qty / Ctn
3 mm x 24 mm x 9.14 m	2	48
3 mm x 48 mm x 9.14 m	1	24



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Adhesive

HIGH QUALITY SYNTHETIC RUBBER BASED ADHESIVE FOR JOINING OF INSULFLEX TUBING AND SHEET INSULATION



INSULFLEX ADHESIVE

Synthetic rubber based adhesive specially formulated to ensure that the joining of Insulflex tubing and sheet insulation are properly sealed to avoid condensation in the cooling pipe system. This adhesive is suitable for joining of rubber tubing and sheet together and also to join or adhere rubber sheet to metal duct.

There is no problem of delamination as the adhesive is water proof after complete dry.

Product Specification And Application

Type	: Synthetic Rubber	Water Resistant : Good (After Drying)
Color	: Black	Consumption : 3 m/square per liter
Adhesion Strength	: Excellent	(On smooth surface)

Sizes (Nominal) and Packing

Volume Per Tin	Tin / Ctn
1 Liter	18



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Elastomeric Paint

HIGH QUALITY WATER BASED TRI - POLYMER ELASTOMERIC MEMBRANE PAINT FOR PROTECTING OF INSULFLEX INSULATION



INSULFLEX ELASTOMERIC MEMBRANE PAINT

Water based Tri - polymer elastomeric membrane specially formulated to provide a tough, elastic and weather proof coating for all Insulflex insulation outdoor installation. All Insulation outdoor must be properly coated (protected).

Product Specification And Application

Type	: Water based Tri - Polymer	Painting Method	: Brush, spray gun or roller
Specific Gravity	: 1.35 +/- 0.03 kg/liter	Paint Consumption	: 12 m/square per liter : (On smooth surface)
Bonding Strength	: Excellent adhesion properties & mechanical toughness to resist abrasion UV blistering In tough weather and extreme temperature	Dilution	: Not necessary
		Drying Time	: Touch dry 1 hour at 30° C
		Overcoating Time	: 8 hours at 30° C

Sizes (Nominal) and Packing

Volume Per Tin	Tin / Ctn
1 Liter	18



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Accessories

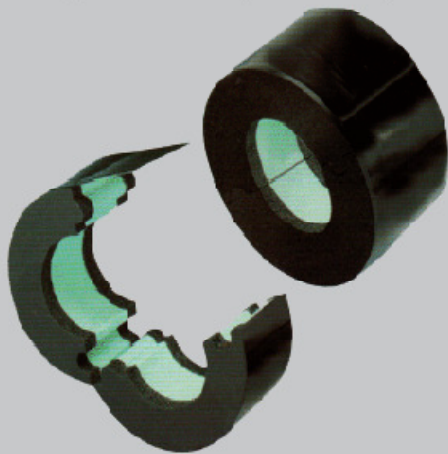
INSULFLEX INSULATED PIPE SUPPORTS

Product Description

This Product is specifically designed to ensure that thickness of the insulating material is absolutely correct, especially at the fixing points.

The PIR central section, which covers the whole circumference, is joined to two (2) by Insulflex half-collars of insulating material to ensure perfect vapour barrier is maintained.

The vapour barrier is guaranteed by overlapping fire proof PVC self-adhesive layer.



PRODUCT SPECIFICATION

PIR centre section	: Density 120 kg m ³
Compression strength	: 1350 kPa
Working temperature	: -45° C +105° C
Thermal Conductivity	: λ 0,036 W/(m k) at 0 C
Shelf life	: 1 year
Colour	: Black
Water vapour permeability	: μ 7000
Diam. and thickness tolerance	: +1mm/+/-1mm

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Accessories



INSULFLEX INSULATED PIPE SUPPORTS WITH COLLAR
Collar range specifically designed for pipe-hanging metal support

Product Description

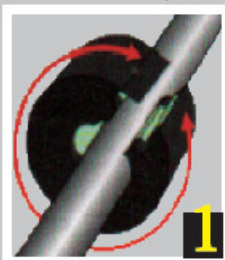
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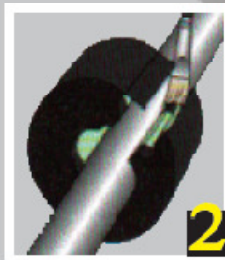
The vapour barrier is guaranteed by overlapping fire proof PVC self-adhesive layer.

The special metal pipe hanger allows fixing of insulating support sections easier and ensures better installation stability.

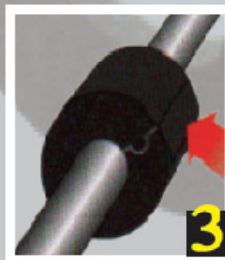
Assembly Instructions



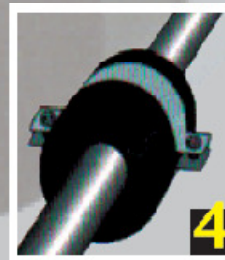
1
Place the insulating support around the pipe.



2
Apply Insulflex adhesive to the half-collars.



3
Seal the support by overlapping the adhesive tabs.



4
Fix the collar around the support.

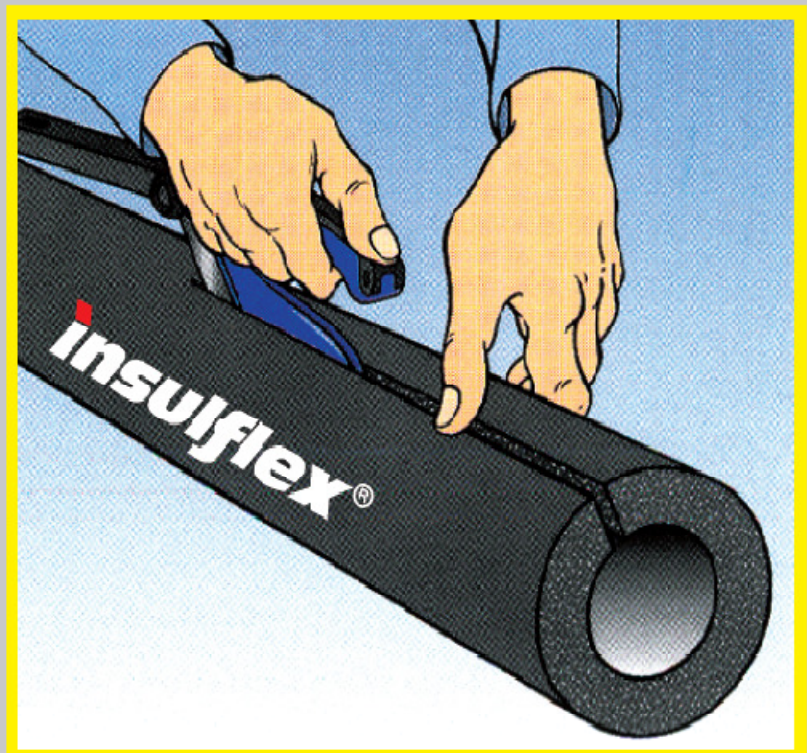


5
Glue the support to the insulating material.

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Cutting Blade

HIGH QUALITY REPLACEABLE BLADE FOR CUTTING OF INSULFLEX TUBING AND SHEET INSULATION



INSULFLEX REPLACEABLE CUTTING BLADE

This blade is specially designed and made for cutting of **insulflex** rubber tubing and sheet insulation.

It is made of high quality material to ensure a smooth cutting and repeated usage before replacing with a new blade. It is user friendly and small for ease of carrying.

The snap-on method



Step 1

Use a sharp knife to slit open one side.



Step 2

Wrap slit insulation over the pipe.



Step 3

Apply adhesive on slit surfaces and prevent both side from touching while allowing adhesive to dry.



Step 4

Remember always to test adhesive dryness before joining.



Step 5

Continue to apply pressure to entire joint to assure full banding.



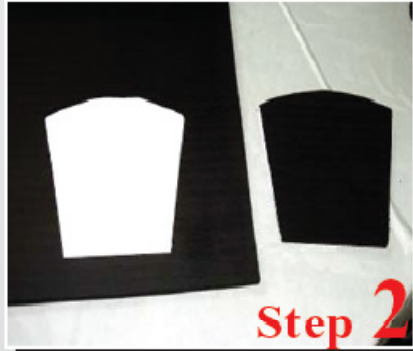
Step 6

For double-layer work, apply adhesive at end joints.

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PREPARATION GUIDE

Fitting Covers



Step 1

Large-size pipe fittings up to 5" IPS can be made using our wooden fitting box.

Step 2

Insulating 45°, 90° ell and tee fittings are made easy using the above template. (Pls refer to template below for further details.)

Step 3

The templates are also able to create fitting for Victaulic Couplings. Sizes from 19.1mm (3/4") IPS to 304.8mm (12") IPS.

Step 4

Insulflex Adhesive, dry fast, sticks well, make installation easy and quick.

Step 5

Apply uniform coat to joint surface.

Step 6

Allow adhesive to be dry for touch for optimum performance.

Step 7

Accurate bonding is required as adhesive bonds instantly and for best results, make sure joint is fully bonded.

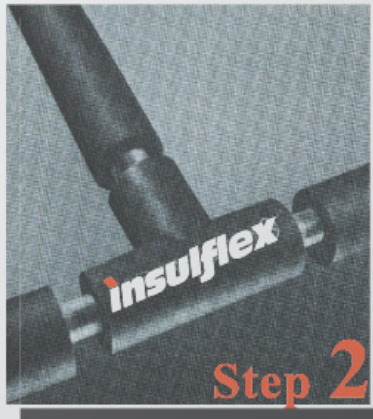
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HOW TO INSTALL

Fitting Cover T, 90°



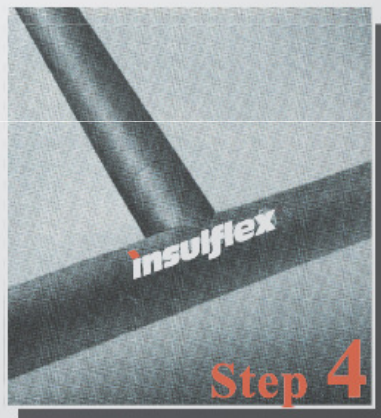
Step 1



Step 2



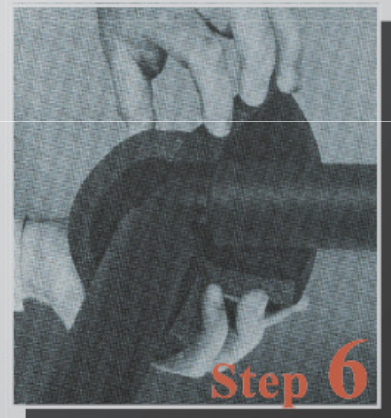
Step 3



Step 4



Step 5



Step 6



Step 7

Step 1

After adhesive has dried, slit the fitting cover into two as shown.

Step 2

Place Fitting Cover T joints.

Step 3

Apply adhesive on all joint surface.

Step 4

Allow adhesive to dry before joining all surface together.

Step 5

Slip Insulation tubings through the pipes and butt firmly against the fittings.

Step 6

Using the 90° template, make the fitting cover from insulation sheet. Then fit it over the fitting.

Step 7

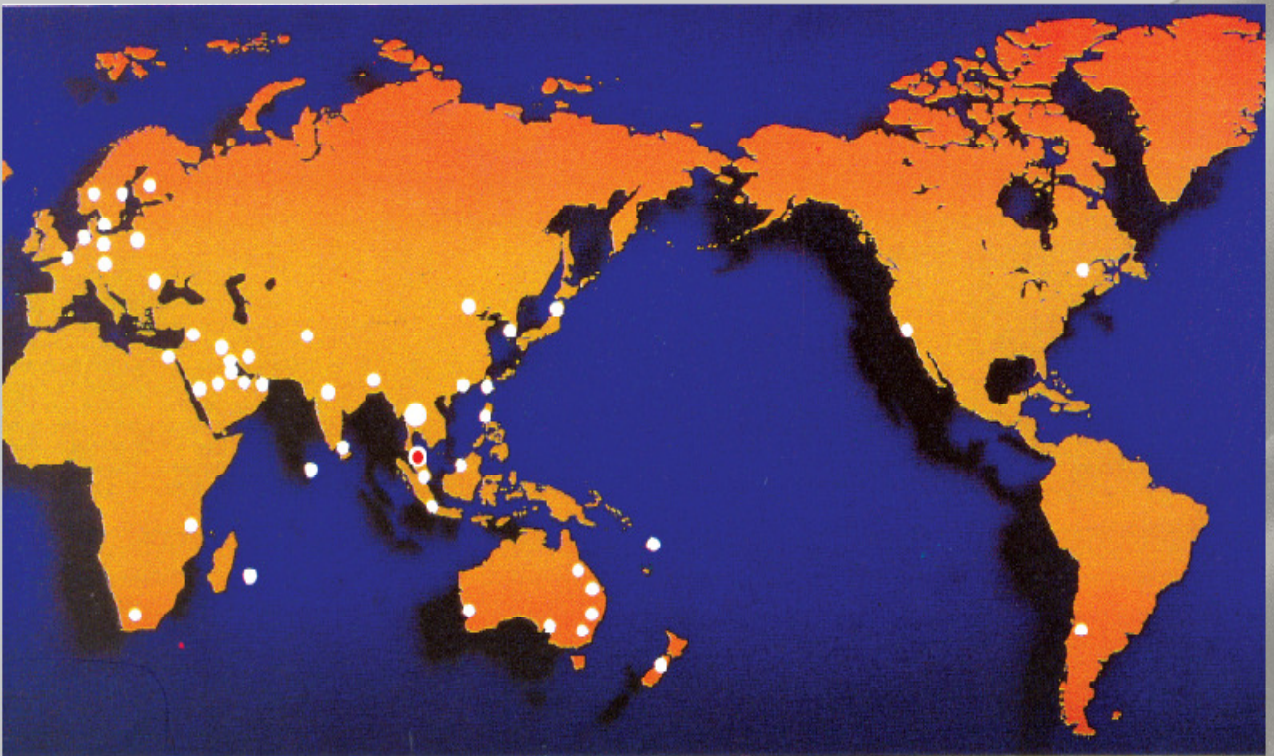
Apply adhesive to joint and wait for adhesive to dry before joining. Remember to apply adhesive to both end of the fitting cover.

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Our Representation

Insulflex is well represented in Malaysia through our distributor and in the international market, we are well represented in more than 25 countries ranging from Asia Ocenia (Aust), South East Asia, The Middle East and to East European/Russia.

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