NBR
High Quality

NanoFlex®

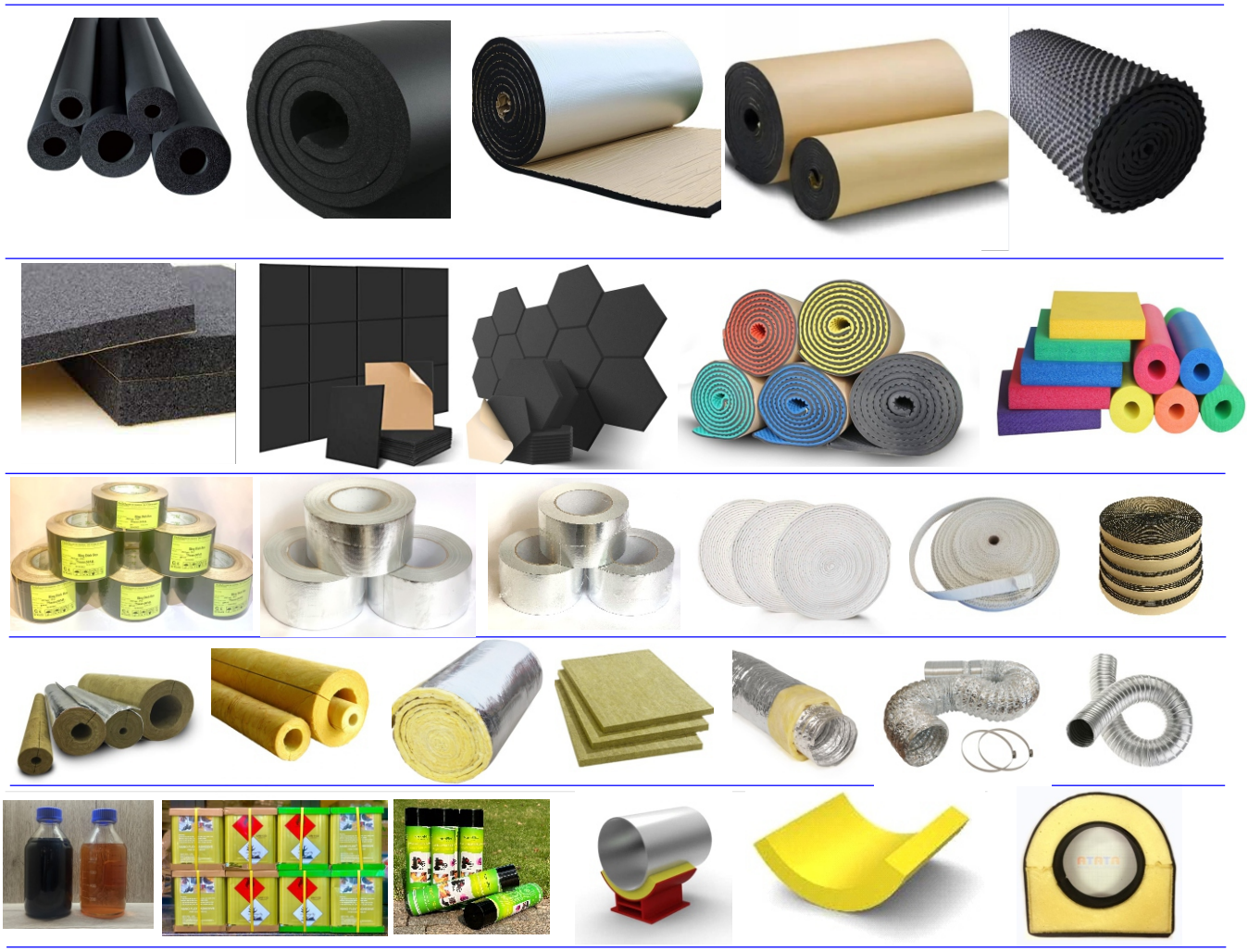
NBR - Thermal Break & Soundproof

New Products 2023! Enhance technology version

Version : 2025

CATALOGUE

HVACR - M&E HIGH PERFORMANCE FOR INDUSTRIAL & RESIDENTAL APPLICATION



DETI CO., LTD

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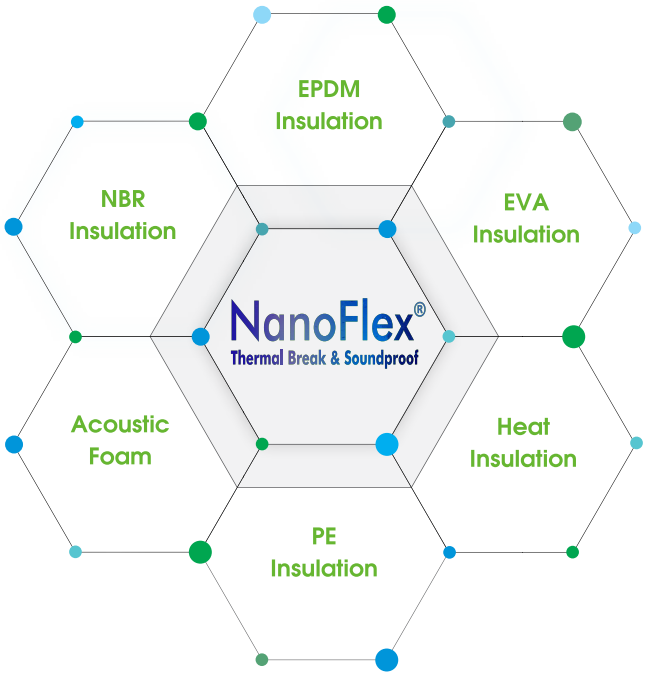
ISO 14 001 CERTIFIED · ISO 9001-2015 COMPANY · REACH · RoHS · SGS · Exova · Quatest1 www.nanoflex.com. · VIBM

INTRODUCE

DETI Co,. Ltd would like to send respectful greetings and cooperation to Customers and Partners. Deti Co,. Ltd was company officially established on 3rd May, 1996. Our factory with locating at Km16+500 Thang Long highway Yen Son Industrial Park, Yen Son Town, Quoc Oai District, Ha Noi Capital Viet Nam where important transportation road of Ha noi Capital and located in industrial park focused factory modern industry. We pride ourselves in presenting our customers with quality products together with prompt and reliable services.

NANOFLEX is a new line of foam rubber insulation products of DETI Co,. Ltd . Products are completed on the most modern new machinery line in the world today. The product has two major material series EPDM and NBR/PVC. This catalog is NANOFLEX preferred NBR/PVC insulation for HVAC&R Industrial.



New NANOFLEX products achieve the highest fire resistance, low and stable insulation coefficient, excellent moisture resistance, small and smooth closed cell structure used in clean room medicine, aerospace technology, industrial refrigeration. industrial and construction. Meet the most demanding requirements of the 4.0 technology towards green, energy-saving and environmentally friendly products.

As a provider of rubber foam material with applications soundproof & insulation leading to the construction industry, providing customers with innovative solutions and promptly to achieve the highest efficiency. Commit to long-term cooperation with customers, with suppliers to develop harmony of interests of the parties.

2. Business philosophy

Training and develop the human resources to maintain the quality of management system ISO 9001:2015, ISO 14001:2015 and strictly practice 5S system. Select stable raw materials, improve the labor skills, and control well the machine system. Therefore, make sure 100% output products meet good quality. Deliver good quality products to customer only. The production capacity of the plant was designed to ensure sufficient for Vietnam market and 20% capacity to service for export markets. Equivalent capacity is 10.000 tons/year. Therefore, it ensures adequate distribution for northern markets, central, southern. Currently, manufactured goods are 02 main types of tubes and sheet.

TECHNICAL CHARACTERICTICS

INSULATION FOCUSED ON FIRE SAFETY

1. Closed cell structure:

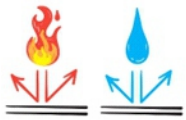
NANOFLEX insulation is close cell structure so helps NANOFLEX highly resistant water vapor, low thermal conductivity and it is suitable for in-door applications without protection layer.

2. Service Temperature:

-50°C to 110°C make NANOFLEX insulation is widely used in the cold and hot surface insulation as protection layer to bring maximum benefits to users.

3. Low thermal conductivity:

NANOFLEX insulation has low and stable thermal conductivity while using to optimize heat loss in HVAC&R system.



4. Flammability & Smoke:

NANOFLEX insulation have passed qualified certificates such as: BS476 Part 6 Class 0, BS 476 part 7 Class 1, UL94 – V0, ASTM D635 –HB ensuring to excellent fire resistance and highest international fire standards.

5. Save Energy:

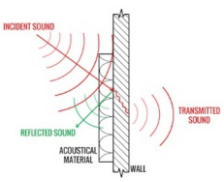
NANOFLEX products based on NBR/PVC material, with Closed-Cell structure and low thermal conductivity that increased energy efficiency in HVAC and building industry. Our products will help saving your money in HVAC system.

6. Flexible installation:

With the high flexibility properties, NANOFLEX is very easy to install in most of places, even with the narrow areas and extraordinary- shaped tubes.

7. Superior sound absorption:

Besides being insulation products, NANOFLEX insulation is good sound absorption material and reduces noise generated by equipment, air movement and water flow inside the duct. With Thickness from (10 to 50), the Average of Absorption Coefficient is (8 DbA, 24 DbA).



8. Easy installation:

NANOFLEX insulation has been cut along the body tube or flat plate is scanned glue to combine two layers of NANOFLEX insulation together perfectly (cutting, bending, gluing, sticking…)

9. Ozone and Mold Resistance:

NANOFLEX insulation is resistant to Ozone rays, tested at high pressure of 200 Mpa and for 200 hours no cracks appeared. At the same time, the NANOFLEX material is also mold resistance, the composition material does not contain CFC and HCFC. NANOFLEX helps protect environment and maitain fresh air within system.

TECHNICAL CHARACTERICTICS

10. No Dust and No Fiber :

They are made of rubber resin. NANOFLEX insulation absolutely no dust and fiber, smooth easy operation are suitable to use incivil construction works, hotels, hospitals improve life environment quality.

11. High μ value provide longer life:

The metal surface covering layer of NANOFLEX production provides a secondary moisture barrier besides the closed cell core. It almost sliminates any penetration of water vapor, providing a very high water vapor diffusion resin actor during is service life.

12. Breakdown voltage, KV:

NANOFLEX material has high potential to withstand high voltage. Current withstanding 28kV current makes NANOFLEX materials highly insulating. It can be used to wrap insulation in high voltage power lines to help protect electrical safety and prevent occurrence.

13. Insulation resistance:

NANOFLEX products have a high insulation resistance of 7.48*10^9 Ω, making the insulating material safe, making it possible to be used as an insulating material, safe to use in the high-voltage working environment where the mechanical system is electricity flows through, helping NANOFLEX product stand out from other similar products on the market.

14. Long life in oil (168h)

NANOFLEX insulation material is resistant to grease, does not deform when exposed to oil for a long time, which helps to increase the life of the materials that NANOFLEX protects, making the material safe for the environment and human life.

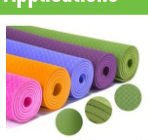
15. Water resistance :

NANOFLEX insulation has an extremely low moisture resistance coefficient of 0.57 x 10^-13 kg/Pa.sm, so it creates a surface waterproof membrane, which helps to increase thermal insulation, increase elasticity and prevent condensation on the surface of insulation

16. Multi color:

Beautiful external appearance. The color of the NANOFLEX insulation was designed according to customer requirements, the surface is always smooth, shiny, easy to clean. Product NANOFLEX insulation flexible, lightweight, minimizing the problems caused by corrosion makes insulation easy, economical. NANOFLEX product can make Yoga mat, protection floor, Thermal break for roof…

17. Other Applications


Yoga Mat


Thermal break for wall & door


Shoe & Protection floor


Soudproof for wall & floor


Machine components

18. Recyclable for environmental protection

We use advance technology. It can be recycled from rubber from to many other products and other materials… This is important idea for environmental protection in this industry.

INSULATION FOCUSED ON FIRE SAFETY

1. REFRIGERATION, CONDITIONING SYSTEM

Refrigenrant pipe system flow (R410A, R22..) cold temperatures from 00C to – 150C from the heat (Outdoor Unit) to the cold part (Indoor Unit). To ensure keeping the heat on pipes, prevent dew condensation, copper pipes need to be insulated from external heat. NANOFLEX insulation is applied for refrigerating systems to control condensation problems, also to reduce waste of energy by higher heat gain into the cooling systems of air conditional. NANOFLEX insulation has been widely used in refrigerating system due to the following superior characteristics:

- Closed cell structure. Non-polar polymer bases with high water and moisture resistance
- Low and stable thermal conductivity value.
- Comply with almost international smoke and flammability standards.
- Gives the finished insulation a neat aesthetic appearance. No coating is needed on most indoor usage.
- Easy of installation, cutting and shaping immediately at construction site, no dust can influence people installation and advanced life environment quality.

Typical for Refrigeration Systems.

Recommended thickness (mm) of NANOFLEX insulation for refrigeration:

Ambient Temperature	26°C						28°C						30°C				35°C			
Relative Humidity	65%	70%	75%	80%	85%	90%	65%	70%	75%	80%	85%	90%	75%	80%	85%	90%	75%	80%	85%	90%
Refrigeration to 0°C (For Air Conditional Wall) - R22																				
Pipe up to 35mm O.D	13	13	19	19	32	32	13	15	19	19	32	38	19	25	32	38	19	25	32	44
Pipe 42 - 60 mm O.D	13	13	19	25	32	38	15	15	19	25	32	38	19	25	32	44	25	32	38	50
Pipe 67 - 140 mm O.D	13	19	19	25	38	44	15	19	19	25	38	44	25	32	38	50	25	32	38	57
Pipe above 140 mm O.D	13	19	25	32	38	50	15	19	25	32	38	50	25	32	38	57	25	32	50	70
Refrigeration to -10°C (For VAV System) - R410A																				
Pipe up to 35mm O.D	19	19	19	19	32	38	19	19	19	25	38	44	25	32	38	50	25	32	38	57
Pipe 42 - 60 mm O.D	19	19	19	19	38	44	19	19	25	32	38	50	25	32	38	57	32	32	50	64
Pipe 67 - 140 mm O.D	19	25	19	25	44	50	19	25	32	32	50	57	32	38	50	64	32	38	50	76
Pipe above 140 mm O.D	19	25	19	25	50	57	19	25	32	38	50	64	32	38	50	76	32	44	57	88

(*) Recommended thicknesses are to be used as a guide. Results are obtained under typical condition. NANOFLEX insulation does not guarantee it will be prevent condensation. Other factors such as proper installation is crucial in condensation prevention. Please consult with our techincal staff for more precise calculations.

2. FOR AIR DUCT SYSTEM

Air conditional duct system is a system help cool the air flow AHU(Air Handing Unit) or FCU (Fan Coil Unit) to provide location needs . To make sure you keep the heat on the way, duct should be insulation material outside. Nano Flex Rubber foam insulation is the optimal choice because save energy and sound-absorption, reducing noise in the system. Nano Flex Insulation material prominent than fibrous material the heat by the following factors :

- High elasticity and excellent flame retardant properties.
- The surface can be cleaned to help facilitate sanitation.
- Enhanced ability to fight the growth of mold , bacteria
- Nano Flex Rubber Insulation is good soundproof material.
- Easy Installation
- Low thermal conductivity saves energy efficiency , reduce Co2
- No fiber material helps prevent the problem of potential air quality
- Closed cell structure gives insulation vapor barrier membrane continuously.
- Avoid the dangerous health, skin allergies as glass wool fibrous material causes.Insulation is Nano Flex elastic rubber foam closed cell structure insulation is very efficient sustainable . This structure prevents the penetration of moisture into the interior and thus avoid changing the thermal conductivity of the product over time . This is an important benefit compared with open- structured materials and products made from fiber materials as well as materials depends on coating prevents external moisture which can be easily damaged or difficult to completely sealed.

Application NANOFLEX rubber foam for ducting works:

Thickness Recommendation for Ducting System (*)

Ambient Condition	Operating Temperature (Cool Air Temperature)						Remark
	20°C (68.8°F)	15°C (59.0°F)	13°C (55.4°F)	10°C (50.0°F)	7°C (50.0°F)	5°C (41.0°F)	
27°C (80°F), 50%RH	6mm (1/4")	10mm (3/8")	10mm (3/8")	13mm (1/2")	13mm (1/2")	15mm (5/8")	Mild Design Conditions
30°C (86.0°F), 70%RH	10mm (3/8")	10mm (3/8")	13mm (1/2")	13mm (1/2")	15mm (5/8")	15mm (5/8")	Normal Design Conditions
32°C (89.6°F), 80%RH	15mm (5/8")	19mm (3/4")	19mm (3/4")	19mm (3/4")	25mm (1")	32mm (1-1/4")	Severe Design Conditions " Like Vietnam weather"
34°C (93.2°F), 85%RH	25mm (1")	25mm (1")	25mm (1")	25mm (1")	32mm (1-1/4")	38mm (1-1/2")	" Very severe Design Condition"

(*) Recommended thicknesses are to be used as a guide. Results are obtained under typical condition. NANOFLEX insulation does not guarantee it will be prevent condensation. Other factors such as proper installation is crucial in

CHILLER WATER COOLING SYSTEM

NANOFLEX insulation is a superior insulation for cooling system that function at below ambient temperature for energy saving by retarding heat gain and also preventing condensation chiller water and refrigeration lines. NANOFLEX insulation also prevents the water pipes from freezing when ambient temperature is below sub-zero point. In areas with high humidity, condensation problems often occur on chiller water pipelines in central cooling systems.This material has been widely used in chilled water and refrigenration systems due to the following superior characteristics:

Complete corss- linked closed cell structure

Great resistance to water vapor penetration and very low water absorption

Low and very stable thermal conductivity (K Value)

Non-polar polymer base : high water and moisture resistance

Application NANOFLEX rubber foam for Chiller systems:



Re-commened thickness (mm) for typical cold water, chilled water and refrigeration systems (*)

Ambien Temperature	26°C				28°C				30°C				35°C			
Relative Humidity	75 %	80 %	85 %	90 %	75 %	80 %	85 %	90 %	75 %	80%	85 %	90 %	75 %	80 %	85%	95 %
Cold water 18°C																
Pipe up to 35mm O.D	6	10	10	19	6	10	13	19	10	10	13	19	10	13	19	25
Pipe D42 - D60mm 0.D	6	10	10	19	6	10	13	19	10	10	15	25	13	13	19	25
Pipe D67 - D140mm O.D	10	10	13	19	10	10	19	25	10	13	19	25	13	19	25	32
Pipe above D140mm 0.D	10	10	13	25	10	10	19	25	10	13	19	32	13	19	25	38
Chiller water 5°C -7°C																
Pipe up to D35mm 0.D	13	19	25	38	13	19	25	32	19	19	25	32	19	19	25	38
Pipe up D42 -D60mm 0.D	19	19	32	50	19	19	25	38	19	19	25	38	19	25	32	38
Pipe up D67mm - D140mm 0.D	19	25	32	50	19	19	32	38	19	25	32	50	25	32	38	50

(*) Recommended thicknesses are to be used as a guide. Results are obtained under typical conditon. NANOFLEX insulation does not guarantee it will be prevent condensation. Other factors such as proper installation is crucial in condensation prevention. Please consult with our techincal staff for mor precise calculations.

HOT WATER SYSTEM

NANOFLEX insulation is very effective in reducing work against thermal hot water systems of domestic heating in hospitals, hotels, residential buildings, industrial plants, etc.. It also is used to keep the heat on the water heater systems solar energy by private family and public buildings.

Closed cell structure and high elasticity gives insulation material NANOFLEX following advantages:

Temperature service up to 1100C (2300F).

Outstanding UV and weather resistant when used outdoors.

Thermal conductivity is stable throughout life services- Very low water absorption

Flexibility for easy installation, no need jacket is necessary even for outdoor piping, unless long term direct contract to sunlight jacketing or protective coating are recommended.

Application NANOFLEX rubber foam for Hot Water:

Re-commened thickness (mm) of Nanoflex insulation for personnal protection (*) for hot pipe cotrolled temperature of surface insulation = 300C, ambient temperature = 250C

Ambient Condition	Operating Temperature (Cool Air Temperature)				
	60°C (140.0°F)	70°C (158.0°F)	80°C (176.0°F)	90°C (194.0°F)	100°C (212.0°F)
Pipe up to D35mm OD	6mm	13mm	15mm	19mm	25mm
Pipe D42mm - D60mm OD	13mm	15mm	19mm	19mm	25mm
Pipe D67mm - D114mm OD	13mm	15mm	19mm	19mm	25mm
Pipe above D114mm OD	15mm	15mm	25mm	25mm	32mm

All advantages descriped above make NANOFLEX the ideal insulation for solar heating and hot water. Stable K value and outstanding weather resistance throughout service life. NANOFLEX is widely used in heating system to replace fiberglass and rockwool.

Because of low water absorption and water vapor transmission, NANOFLEX is widely used in heating and cooling system.

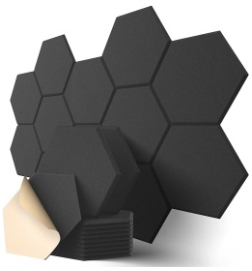
(*) Recommended thicknesses are to be used as a guide. Results are obtained under typical conditon. NANOFLEX insulation does not guarantee it will be prevent condensation. Other factors such as proper installation is crucial in condensation prevention. Please consult with our techincal staff for mor precise calculations.

NANOFLEX SOUNDPROOF MATERIAL & APPLICATION

When you're wishing to soundproof a room or make your own personalized music studio, one of the first things that should come to mind is acoustic foam. Acoustical foams are easy to install, minimizes reverberation, sound dampening insulation that absorbs multi frequency noise, improves acoustics, and keeps sound from escaping the enclosed area.

Environmental noise, which is often defined as unwanted sound, is genearated by man's activity and effects the environment in which we live. NANOFLEX soundproof material is a versatile acoustic absorber designed for use in a variety of different acoustic applications. With high performance and vibration damping.




NANOFLEX soundproof material is a uniquely advanced than other acoustic insulation material. With a peak absorption frequency determined by the insulation thickness and the material density, NANOFLEX soundproof material can be engineered to target specific problem frequencies.

Nanoflex soundproof material has been widely using in soundproof application such as : theater, dance hall, semilar room, attenuation sections of fans, regular, diesel, electric generator the following superior characteristics:

High absorption coefficent sound maximum up to 0.98, minimum insertion loss typically 8(dBA) broadband reduction achieved with a 10mm thickness rubber foam.

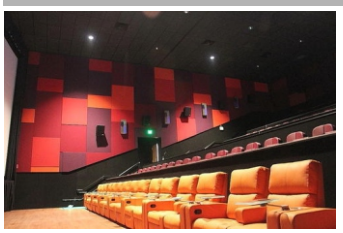
Unique combination of physical properties allows absorption to be macimise at key "nuisance" frequencies.

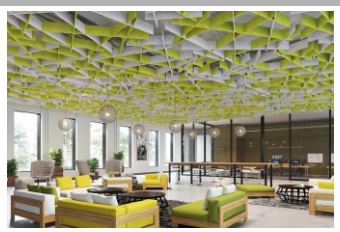
NANOFLEX soundproof material may be suitable for use as an alternative to complex "foam barrier".

Application NANOFLEX Rubber foam for soundproof :

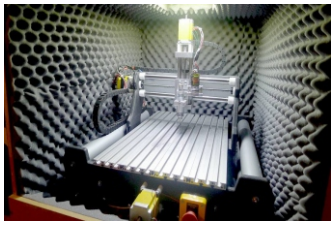



Soundproof for Ductwork	Soundproof for Pipe	Soundproof for box system	Soundproof for mechine






Soundproof for Cinema	Soundproof for Hall	Soundproof for Office	Soundproof for gymnasiums

We use advance version and update quality of management system ISO 9001:2015, ISO 14001:2015 with strictly practice 5S system. Products was tested by third party testing laboratory in the world. Such as EXOVA from UK-United Kingdom (England) and SGS laboratories from Singapore (with global lab in Singapore, Thailand, Shanghai, Taiwan..). Beside some physical properties was tested in high standard testing center from laboratories by authority of Vietnam (Located in HaNoi and Hochiminh city).

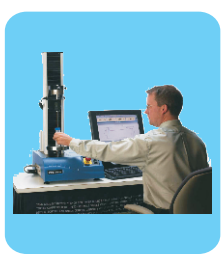
Third party certification:

Third party laboratories from Singapore (with global lab in Singapore, Thailand, Shanghai, Taiwan)	Third party laboratories from United Kingdom (England)	REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. UK REACH is the UK's replication of EU REACH regulation.	Restriction of hazardous substances directive in electrical and electronic equipment 2002/95/EC, RoHS) for products entry EU market.
Third party laboratories from authority of Vietnam (Located in Hochiminh city)	Third party laboratories from authority of Vietnam (Located in Hanoi city)	Our products meet environmental safety system with ISO 14001:2015 version.	Our products meet environmental safety system with ISO 14001:2015 version.

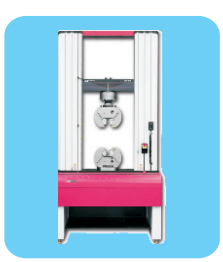
NANOFLEX standard orentation reach FM Approval:
If you are looking to buy a new product with FM certification. We can supply it with another brand name. We are partner of Wincell brandname as well. Our Nanoflex brand name with FM Approval liciense is not ready yet. It is under survey and preparation for investment steps.

FM Approval is the world's leading independent organization and accreditation of products and services. We are partner of Wincell brand name. The products of this brand name meet global certification from FM approval.	GREENGUARD Certification association for friendly environmental products with brand name Wincell. We are partner of Wincell brandname.

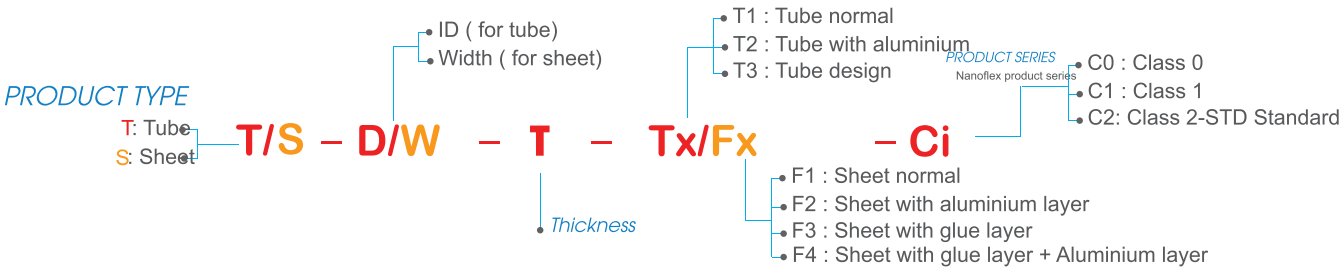
Nanoflex Products Testing Equiment





NanoFlex STD (CLASS 2)



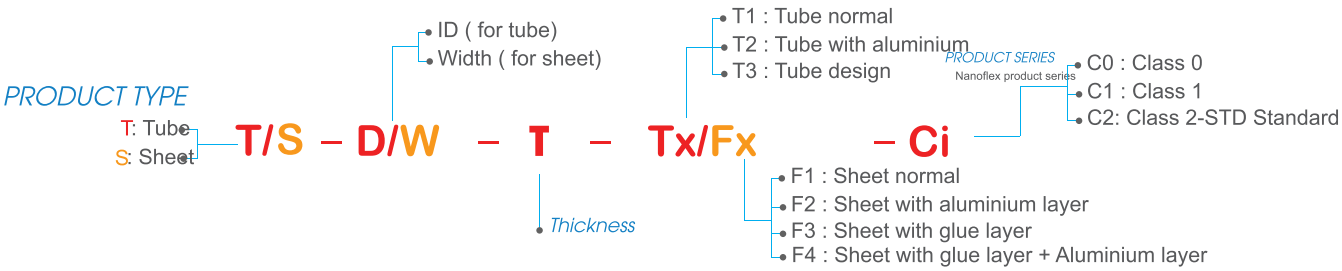
NANOFLEX STD is a high standard with surface all is black, product which is popularly used in refrigerant industry in purpose of prevent condensation problem on chiller water and refrigeration systems and saving energy. The product have low and stable thermal conductivity K-value, high water vapor permeability μ value and meet ASTM D635 class HB, UL94 Class V0.

SPECIFICATIONS :

Properties	Nanoflex Value / Assessment	Test Method	Lad Center
General			
Material	NBR/PVC		ITT - Vietnam
Basic Color	Black	For the colors, Please contact with technical department	ITT - Vietnam
Cell Structure	Complete close cell	ASTM E986	ITT - Vietnam
Density (kg/m³)	**40-70kg/m3**	ASTM D297	ITT - Vietnam
Service Temperature			
Min Service temperature	-50°C	ASTM E986	ITT - Vietnam
Max Service temperature	+110°C	ASTM D297	ITT - Vietnam
Thermal conductivity			
K-value (W/m.K)	23°C 0.0307 * **New**	ASTM C518	VIBM - Vietnam
Water vapors behavior			
Water vapor permeability coefficient (kg/Pa.s.m)	0.57 x 10^-13 kg/Pa.s.m	ASTM E96-16	VIBM - Vietnam
Water Absorption (by volume)	≤ 0.47% (% volume) ≤ 5.28% (% volume)	ASTM C1104	VIBM - Vietnam
Flammability & Smoke			
Fire performance & smoke	Class V0 - No flaming droplet when buring Class HB 4-Zero (0-0-0-0)	UL94 ASTM D635 -18 ISO 11925 - 2	SGS - Shanghai SGS - Shanghai VIBM - Vietnam
Strength physics			
Dimension stability (%)	9.58% , at 105±3°C in 7 days	ASTM D1204	ITT - Vietnam
Compression resilience ratio	75.6% , (Compression 50%, 72hrs)	ASTM D395	ITT - Vietnam
Tensile strength (MPa)	0.62 MPa	ASTM D412	ITT - Vietnam
Adhesion glue layer with Metal surface	0.24 N/mm	ASTM D429	ITT - Vietnam
Enviroment & Health			
UV & Weather resistance	No crack	ASTM G154	ITT - Vietnam
RoHS II	KPH : None, GHPH : None	IEC 62321 - 5	Quatest 1 - Vietnam
Other Technical Data			
Breakdown voltage KV	28kV	ASTM D419	ITT - Vietnam
Ozone Resistance	No Cracks	ASTM D1149	ITT - Vietnam
The Color change after UV test	Level 5	ISO 105 - A02	ITT - Vietnam
Life-time			
Service life-time	>15 years	Under proper installation conditions	

PRODUCT CODE & SPECIFICATIONS:

NanoFlex Class 1

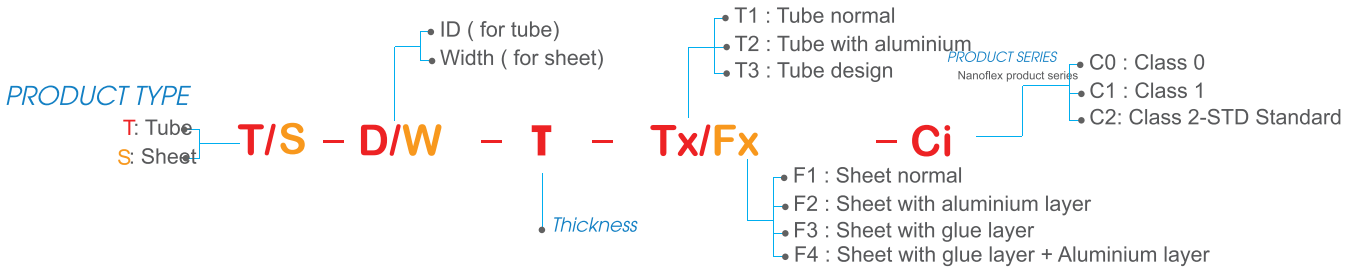


NANOFLEX CLASS 1 is NBR based closed cell insulation specially formulated to meet England fire standard BS. Products have low flame spread following BS 476 Part 7 is Class 1 and low fire propagation following BS476 Part 6.

SPECIFICATIONS :

Properties	Nanoflex Value / Assessment	Test Method	Lad Center
General			
Material	NBR/PVC		ITT - Vietnam
Basic Color	Black	For the colors, Please contact with technical department	ITT - Vietnam
Cell Structure	Complete close cell	ASTM E986	ITT - Vietnam
Density (kg/m³)	**40-70kg/m3**	ASTM D297	ITT - Vietnam
Service Temperature			
Min Service temperature	-50°C	ASTM E986	ITT - Vietnam
Max Service temperature	+110°C	ASTM D297	ITT - Vietnam
Thermal conductivity			
K-value (W/m.K)	23°C 0.0307 * **New**	ASTM C518	VIBM - Vietnam
Water vapors behavior			
Water vapor permeability coefficient (kg/Pa.s.m)	0.57 x 10^-13 kg/Pa.s.m	ASTM E96-16	VIBM - Vietnam
Water Absorption (by volume)	≤ 0.47% (% volume) ≤ 5.28% (% volume)	ASTM C1104	VIBM - Vietnam
Flammability & Smoke			
Fire performance & smoke	Class V0 - No flaming droplet when buring Class HB 4-Zero (0-0-0-0) Class 1	UL94 ASTM D635 -18 ISO 11925 - 2 BS 476 Part 7	SGS - Shanghai SGS - Shanghai VIBM - Vietnam SGS - Shanghai
Strength physics			
Dimension stability (%)	9.58% , at 105±3°C in 7 days	ASTM D1204	ITT - Vietnam
Compression resilience ratio	75.6% , (Compression 50%, 72hrs)	ASTM D395	ITT - Vietnam
Tensile strength (MPa)	0.62 MPa	ASTM D412	ITT - Vietnam
Adhesion glue layer with Metal surface	0.24 N/mm	ASTM D429	ITT - Vietnam
Enviroment & Health			
UV & Weather resistance	No crack	ASTM G154	ITT - Vietnam
RoHS II	KPH : None, GHPH : None	IEC 62321 - 5	Quatest 1 - Vietnam
Other Technical Data			
Breakdown voltage KV	28kV	ASTM D419	ITT - Vietnam
Ozone Resistance	No Cracks	ASTM D1149	ITT - Vietnam
The Color change after UV test	Level 5	ISO 105 - A02	ITT - Vietnam
Life-time			
Service life-time	>15 years	Under proper installation conditions	

NanoFlex Class 0



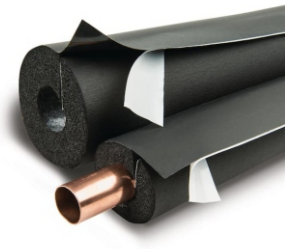
NANOFLEX CLASS 0 is NBR based closed cell insulation specially formulated to meet England fire standard BS. Products have low flame spread following BS 476 Part 6 is Class 0 and low fire propagation following BS476 Part 7.

SPECIFICATIONS :

Properties	Nanoflex Value / Assessment	Test Method	Lad Center
General			
Material	NBR/PVC		ITT - Vietnam
Basic Color	Black	For the colors, Please contact with technical department	ITT - Vietnam
Cell Structure	Complete close cell	ASTM E986	ITT - Vietnam
Density (kg/m³)	**40-70kg/m3**	ASTM D297	ITT - Vietnam
Service Temperature			
Min Service temperature	-50°C	ASTM E986	ITT - Vietnam
Max Service temperature	+110°C	ASTM D297	ITT - Vietnam
Thermal conductivity			
K-value (W/m.K)	23°C 0.0307 * **New**	ASTM C518	VIBM - Vietnam
Water vapors behavior			
Water vapor permeability coefficient (kg/Pa.s.m)	0.57 x 10^-13 kg/Pa.s.m	ASTM E96-16	VIBM - Vietnam
Water Absorption (by volume)	≤ 0.47% (% volume) ≤ 5.28% (% volume)	ASTM C1104	VIBM - Vietnam
Flammability & Smoke			
Fire performance & smoke	Class V0 - No flaming droplet when buring Class HB 4-Zero (0-0-0-0) Class 0	UL94 ASTM D635 -18 ISO 11925 - 2 BS 476 Part 6	SGS - Shanghai SGS - Shanghai VIBM - Vietnam SGS - Shanghai
Strength physics			
Dimension stability (%)	9.58% , at 105±3°C in 7 days	ASTM D1204	ITT - Vietnam
Compression resilience ratio	75.6% , (Compression 50%, 72hrs)	ASTM D395	ITT - Vietnam
Tensile strength (MPa)	0.62 MPa	ASTM D412	ITT - Vietnam
Adhesion glue layer with Metal surface	0.24 N/mm	ASTM D429	ITT - Vietnam
Enviroment & Health			
UV & Weather resistance	No crack	ASTM G154	ITT - Vietnam
RoHS II	KPH : None, GHPH : None	IEC 62321 - 5	Quatest 1 - Vietnam
Other Technical Data			
Breakdown voltage KV	28kV	ASTM D419	ITT - Vietnam
Ozone Resistance	No Cracks	ASTM D1149	ITT - Vietnam
The Color change after UV test	Level 5	ISO 105 - A02	ITT - Vietnam
Life-time			
Service life-time	>15 years	Under proper installation conditions	

PRODUCTS LIST:

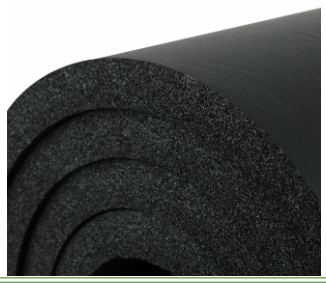
TUBE series

			
Tube insulation normal	Tube insulation with aluminium	Tube insulation with fabrics jacket	Tube insulation pre - cutting

SHEET series

			
Sheet insulation normal	Sheet insulation with aluminium	Sheet insulation with adhesive layer	Sheet insulation all in one

ACOUSTIC series

			
Egg - Sheet Rubber Foam	Flat - Sheet Rubber Foam	Press mix - Sheet Rubber Foam	Acoustic Panel Rubber

ORTHER series

			
Acoustic Rubber for Pipe	Color Rubber Foam	Color Acoustic Rubber	Acoustic Panel Rubber

A. TUBE INSULATION TYPE

PRODUCT TYPE

T – Da – bT – Tx – Ci

- T: Tube
- ID (for tube)
- *Thickness*
- T1 : Tube normal
- T2 : Tube with aluminium
- T3 : Tube with frabics jacket
- T4 : Tube pre - cutting

PRODUCT SERIES

Nanoflex product series

GUIDE TO MATCHING NANOFLEX AND PIPE SIZE

Tube size		Steel pipes ASTM A53 & ASTM A106 & ASTM A500 & TIS 107				Copper pipes for water and gas - ASTM B88		Copper pipes for refrigeration ASTM B280		PPR pipe DIN 8077 & DIN 8078	uPVC pipe ASTM D1785
(Mm)	(Inch)	Nor (DN)	Nor (inch)	Act (OD)	Act (OD)	Nor (DN)	Act (OD)	Nor (DN)	Act (OD)	Act (OD)	Act (OD)
6	1/4”							1/4			
9	3/8”					1/4	9,5	3/8	9,52		
13	½”					3/8	12,7	½	12,7		
16	5/8”					½	15,9	5/8	15,9		
19	3/4”					5/8	19,1	3/4	19,1	20	
22	7/8”	15	½	21,3	21,7	3/4	22,2	7/8	22,2		21
25	1”	20	3/4	26,7	27,2					25	
28	1-1/8”					1	28,6	1-1/8	28,6		27
32	1-1/4”									32	
35	1-3/8”	25	1	33,41	34	1-1/4	34,9	1-3/8	34,9		34
38	1-1/2”										
42	1-5/8”	32	1-1/4	42,21	42,7	1-1/2	41,3	1-5/8	41,3	40	42
48	1-7/8”	40	1-1/2	48,31	48,6						48
51	2”									50	
54	2-1/8”					2	54	2-1/8	54		
57	2-1/4”										
60	2-3/8”	50	2	60,3	60,5						60
64	2-1/2”									63	
67	2-5/8”					2-1/2	66,7	2-5/8	66,7		
73	2-7/8”	65	2-1/2	73	76,3						
76	3”									75	75
79	3-1/8”					3	79,4	3-1/8			
89	3-1/2”	80	3	88,9	89,1						90
102	4”	90	3-1/2	101,6	101,6					110	110
114	4-1/2”	100	4	114,31	114,3						
130	5-1/8”										
140	5-1/2”	125	5	140,3	139,8						

Notes:

1- The minimum internal diameter (ID) for our insulation are given to ensure correct fitting over pipe

2- TIS 107 outer diameter pipe sizes are equivalent to JIS 3442.

3- uPVC pipes to ASTM D1785 have the same outer diameter as steel pipes to ASTM A53.

4- Density of NANOFLEX Thermal Break & Soundproof insulation is 40 to 70 Kg/m3.

Ps: We can produce differences size following customer request.

1. TUBE NORMAL INSULATION (T1)

NANOFLEX normal tube (T1) is cylindrical tube has closed cell structure with a core inside diameter was installed that fits with system air conditioning copper pipes, metal pipes water cooling, hot water PPR pipe, condensate uPVC pipe and soundproof decorative pipe is packed in carton box very handy…our insulation are widely used to saving energy, control and prevent condensation problem on chiller water pipe and refrigeration pipe. They also efficiently reduce heat flow on the hot water plumbing, liquid heating and soundproof application

Tube Normal Insulation
Code : T-aDxbT-B-T1

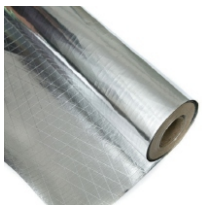
Order example:

- Pipe - Type T1, size inside diameter 6mm, With thickness 13mm, black color - Class 1

  Code : T-D6x13T-B -T1

2. TUBE INSULATION WITH ALUMINIUM (T2)

NANOFLEX tube (T2) with aluminum layer is highly puncture and tear resistant. Contains flame retardants and can be used as the exterior of hot or cold insulation. This product also provides excellent vapor barrier performance. In particular for outdoors application, it has good anti-aging properties and is resistant to all weather conditions. We are offering 4 grades of aluminum for multi-purpose applications.

Aluminium Layer code :	ALU-1	ALU2	ALU3	ALU4
Picture :				
Description :	Aluminium Glass Cloth Layer	Aluminium Embossed Caro Layer	Aluminium Caro with Re-inforcement Fiber Glass Layer	MPET Aluminium layer
Foil Backing Thickness:	100 Micron	20 Micron	7 Micron	20 Micron
Total Thickness	150 Micron	55 Micron	35 Micron	55 Micron
Tensile Strength	255N/25mm	50N/25mm	155N/25mm (XD)	15N/25mm
Elongation	20%	20%	10%	20%
Service Temp	-30°C to 100°C	-30°C to 100°C	-40°C to 100°C	-30°C to 100°C
Maximum Temp	450°C	240°C	116°C	100°C
Fire Performance	Class 0 - Passed follow BS476 - Part 6	Class 0 - Passed follow BS476 - Part 6	Class 1 - Passed	Class 1 - Passed
Description	High elasticity, smoothly surface, high fire resistance, difficult to crack, cannot tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	Best elasticity, smoothly surface, high fire resistance, difficult to crack, difficult to tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	Normal elasticity, smoothly surface, normal fire resistance, difficult to crack, Can be tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	High elasticity, smoothly surface, normal fire resistance, difficult to crack, difficult to tear away. With antibacterial properties

Advice application:	Outdoor / Indoor. Flat surface, such as ducting	Outdoor / Indoor. Flat & Round surface, such as ducting and piping.	Indoor. Flat & Round surface, such as ducting and piping.	Outdoor/Indoor. Flat & Round surface, such as ducting and piping.
Application field :	Hotel, Building, Factory. Transportation (Car, board, train).	Hotel, Building, Factory. Transportation (Car, board, train).	Building, Factory.	Cleanroom Pharmacy and electronic industry.

Order example :

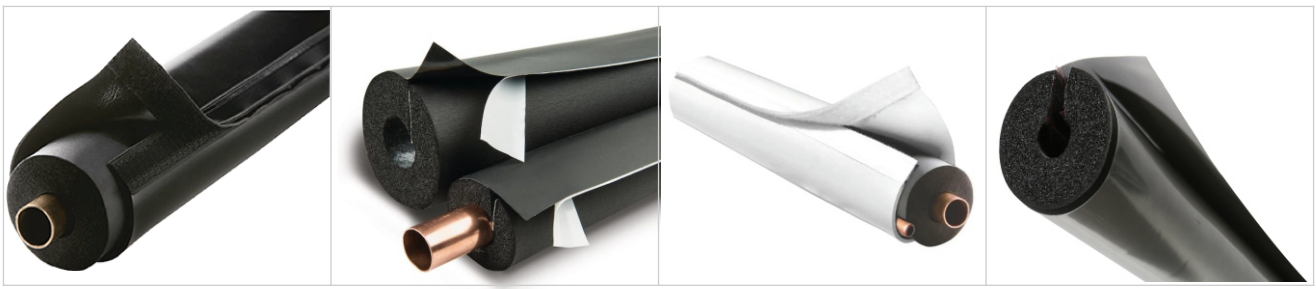
- Tube with aluminium layer- Type : T2 ; - Diametter : 60mm ; Thickness : 25mm ; with aluminium

Code : T-D60x25T -B-T2

3. TUBE INSULATION WITH FABRICS JACKET (T3)

Insulation jacketing consists of an outelnsulation jacketingr covering that is wrapped around tubing or pipe insulation to protect the insulation from moisture, wear and mechanical damage. The jacket also serves to provide support for the insulation and establish the system emissivity and appearance. Insulation jacketing plays an important role in the efficiency of the insulation.

The type of jacketing used depends on the mechanical, chemical, thermal, and moisture conditions of the installation as well as cost and aesthetics requirements.



Tube with fabrics jacket
Code : T-aDxbT-B-T3

Order example :

- Tube with fabrics jacket : T3 - Diametter : 114mm ; Thickness : 19mm **Code : T-D114x19T -B-T3**

4. TUBE INSULATION PRE - CUTTING / COLOR RUBBER (T4)

Pipeline insulation of this type is pre-cut throughout half the length of the pipe. This pipe makes construction convenient, saving labor costs in special cases.

Suitable for active pipelines requiring quick installation. Especially require high art and avoid opening joints after being properly protected.

Tube insulation pre - cutting / Color rubber
Code : T-aDxbT-B-T4

Order example :

- Tube with cutting: T4 - Diametter : 114mm ; Thickness : 13mm **Code : T-D114x13T -B-T4**

5. STANDARD PACKING (NUMBER OF TUBES PER BOX CARTON) (Table-02)

Pipe size (ØDmm)	Pipe size (ØD inch)	Nanoflex code number (Quanlity : Pcs/bag nilon, 1pcs=1,83m, Length = 6 Feet Length)							
		10mm (3/8")	13mm (1/2")	15mm (5/8")	19mm (3/4")	25mm (1")	32mm (1-1/4")	38mm (1-1/2")	50mm (2")
6	1/4"	T-D6x10T (150)	T-D6x13T (100)	T-D6x15T (70)	T-D6x19T (50)	T-D6x25T (36)			
9	3/8"	T-D9x10T (120)	T-D9x13T (90)	T-D9x15T (60)	T-D9x19T (45)	T-D9x25T (30)			
13	1/2"	T-D13x10T (100)	T-D13x13T (75)	T-D13x15T (55)	T-D13x19T (40)	T-D13x25T (26)	T-D13x32T (22)		
16	5/8"	T-D16x10T (90)	T-D16x13T (64)	T-D16x15T (50)	T-D16x19T (36)	T-D16x25T (24)	T-D16x32T (20)	T-D16x38T (14)	
19	3/4"	T-D19x10T (75)	T-D19x13T (56)	T-D19x15T (40)	T-D19x19T (30)	T-D19x25T (22)	T-D19x32T (18)	T-D19x38T (12)	
22	7/8"	T-D22x10T (65)	T-D22x13T (48)	T-D22x15T (32)	T-D22x19T (28)	T-D22x25T (20)	T-D22x32T (16)	T-D22x38T (12)	
25	1"	T-D25x10T (60)	T-D25x13T (42)	T-D25x15T (32)	T-D25x19T (24)	T-D25x25T (18)	T-D25x32T (14)	T-D25x38T (10)	T-D25x50T (6)
28	1-1/8"	T-D28x10T (55)	T-D28x13T (36)	T-D28x15T (30)	T-D28x19T (22)	T-D28x25T (16)	T-D28x32T (12)	T-D28x38T (10)	T-D28x50T (6)
32	1-1/4"	T-D32x10T (45)	T-D32x13T (32)	T-D32x15T (26)	T-D32x19T (20)	T-D32x25T (16)	T-D32x32T (12)	T-D32x38T (9)	T-D32x50T (5)
35	1-3/8"	T-D35x10T (40)	T-D35x13T (32)	T-D35x15T (22)	T-D35x19T (18)	T-D35x25T (14)	T-D35x32T (12)	T-D35x38T (9)	T-D35x50T (5)
38	1-1/2"	T-D38x10T (34)	T-D38x13T (28)	T-D38x15T (20)	T-D38x19T (16)	T-D38x25T (12)	T-D38x32T (10)	T-D38x38T (8)	T-D38x50T (4)
42	1-5/8"	T-D42x10T (30)	T-D42x13T (25)	T-D42x15T (20)	T-D42x19T (16)	T-D42x25T (12)	T-D42x32T (9)	T-D42x38T (8)	T-D42x50T (4)
48	1-7/8"	T-D48x10T (28)	T-D48x13T (22)	T-D48x15T (18)	T-D48x19T (15)	T-D48x25T (10)	T-D48x32T (8)	T-D48x38T (6)	T-D48x50T (4)
51	2"	T-D51x10T (24)	T-D51x13T (20)	T-D51x15T (16)	T-D51x19T (12)	T-D51x25T (10)	T-D51x32T (8)	T-D51x38T (6)	T-D51x50T (4)
54	2-1/8"	T-D54x10T (22)	T-D54x13T (20)	T-D54x15T (16)	T-D54x19T (12)	T-D54x25T (10)	T-D54x32T (8)	T-D54x38T (6)	T-D54x50T (4)
57	2-1/4"	T-D57x10T (22)	T-D57x13T (20)	T-D57x15T (14)	T-D57x19T (12)	T-D57x25T (9)	T-D57x32T (6)	T-D57x38T (6)	T-D57x50T (4)
60	2-3/8"	T-D60x10T (20)	T-D60x13T (18)	T-D60x15T (14)	T-D60x19T (12)	T-D60x25T (9)	T-D60x32T (6)	T-D60x38T (6)	T-D60x50T (3)
64	2-1/2"	T-D64x10T (20)	T-D64x13T (16)	T-D64x15T (14)	T-D64x19T (10)	T-D64x25T (9)	T-D64x32T (6)	T-D64x38T (6)	T-D64x50T (3)
67	2-5/8"	T-D67x10T (18)	T-D67x13T (16)	T-D67x15T (12)	T-D67x19T (9)	T-D67x25T (8)	T-D67x32T (6)	T-D67x38T (6)	T-D67x50T (3)
73	2-7/8"	T-D73x10T (18)	T-D73x13T (16)	T-D73x15T (12)	T-D73x19T (9)	T-D73x25T (8)	T-D73x32T (5)	T-D73x38T (4)	T-D73x50T (3)
76	3"	T-D76x10T (18)	T-D76x13T (16)	T-D76x15T (12)	T-D76x19T (8)	T-D76x25T (8)	T-D76x32T (5)	T-D76x38T (4)	T-D76x50T (3)
79	3-1/8"	T-D79x10T (16)	T-D79x13T (14)	T-D79x15T (12)	T-D79x19T (8)	T-D79x25T (6)	T-D79x32T (4)	T-D79x38T (4)	T-D79x50T (3)
89	3-1/2"	T-D89x10T (16)	T-D89x13T (14)	T-D89x15T (12)	T-D89x19T (8)	T-D89x25T (6)	T-D89x32T (4)	T-D89x38T (4)	T-D89x50T (3)
102	4"	T-D102x10T (14)	T-D102x13T (12)	T-D102x15T (12)	T-D102x19T (6)	T-D102x25T (6)	T-D102x32T (3)	T-D102x38T (3)	T-D102x50T (2)
114	4-1/2"	T-D114x10T (14)	T-D114x13T (12)	T-D114x15T (12)	T-D114x19T (6)	T-D114x25T (4)	T-D114x32T (3)	T-D114x38T (3)	T-D114x50T (2)
130	5-1/8"	T-D130x10T (10)	T-D130x13T (9)	T-D130x15T (6)	T-D130x19T (6)	T-D130x25T (3)	T-D130x32T (2)	T-D130x38T (2)	T-D130x50T (2)
140	5-1/2"	T-D140x10T (10)	T-D140x13T (8)	T-D140x15T (6)	T-D140x19T (6)	T-D140x25T (3)	T-D140x32T (2)	T-D140x38T (2)	T-D140x50T (2)

Note : - Tolerance with Diametter : ±2mm ; Tolerance with Thickness : ±2mm ; Tolerance with Leng : ±3mm ;

Packaging:
Carton box size: 420 x 320 x 1880mm
PE/PVC bag: D420mm x 320 x L1900 mm
Tube length standard: 1.83m length/pcs. Tolerance: Length ± 20mm, thickness ± 2mm. Diameter ± 2mm
We can produce differences size following customer request.

II. SHEET INSULATION TYPE

PRODUCT TYPE

S – Wa – bT – Fx – Ci

- S: Sheet
- W: Width
- Thickness
- Fx:
  - F1 : Sheet normal
  - F2 : Sheet with aluminium
  - F3 : Sheet with frabics jacket
  - F4 : Sheet all in one (one aluminium, one glue layer)
- *PRODUCT SERIES*
  - Nanoflex product series.
  - C0 : Class 0
  - C1 : Class 1
  - C2 : Class 2 (STD)

1. SHEET NORMAL INSULATION (F1):

NANOFLEX standard sheet (F1) is a textured sheet with no binder and no aluminum layer, standard color for two surfaces is black. Installation for ventilation duct systems, cooling water and hot water pipes. High economic efficiency when used in normal conditions in buildings and factories.

SHEET NORMAL INSULATION
Code : S - Wa x bT -F1-C1

Classification: Class 0, class 1, class 2 (STD).

Order example:

- Standard sheet - type F1, size width 1100mm, with thickness 13mm, black color - Class 1;

  Products code: S-W1100x13T-F1-C1.

* SHEET NORMAL INSULATION - COLOR RUBBER

Application:

Widely used in central air conditioning, construction, chemical, medical treatment, textile, metallurgy, vessel, vehicle, electrical appliance and etc industry and sectors of various hot and cold media pipeline, container, can achieve to reduce the energy saving effect of the hot and cold loss.

SHEET NORMAL INSULATION - COLOR RUBBER
Code : S - Wa x bT -FC-C1

Classification: Class 0, class 1, class 2 (STD).

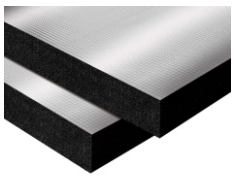
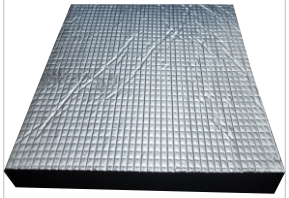
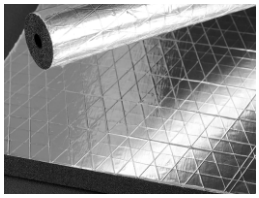
Order example:

- Standard sheet - type F1, size width 1100mm, with thickness 13mm, black color - Class 1;

  Products code: S-W1100x13T-F1-C1.

2. SHEET INSULATION WITH ALUMINIUM LAYER (F2):

NANOFLEX sheet (F2) with aluminum layer is highly puncture and tear resistant. Contains flame retardants and can be used as the exterior of hot or cold insulation. This product also provides excellent vapor barrier performance. The foil facings ensure almost zero vapor permeability. In particular for outdoors application, it has good anti-aging properties and is resistant to all weather conditions.We are offering 4 grades of aluminum for multi-purpose applications.

Aluminium Layer	ALU-1	ALU2	ALU3	ALU4
Picture :				
Description :	Aluminium Glass Cloth Layer	Aluminium Embossed Caro Layer	Aluminium Caro with Re-inforcement Fiber Glass Layer	MPET Aluminium layer
Foil Backing thickness:	100 Micron	20 Micron	7 Micron	20 Micron
Total Thickness	150 Micron	55 Micron	35 Micron	55 Micron
Tensile Strength	255N/25mm	50N/25mm	155N/25mm (XD)	15N/25mm
Elongation	20%	20%	10%	20%
Service Temp	-30°C to 100°C	-30°C to 100°C	-40°C to 100°C	-30°C to 100°C
Maximum Temp	450°C	240°C	116°C	100°C
Fire Performance	Class 0 - Passed follow BS476 - Part 6	Class 0 - Passed follow BS476 - Part 6	Class 1 - Passed	Class 1 - Passed
Description	High elasticity, smoothly surface, high fire resistance, difficult to crack, cannot tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	Best elasticity, smoothly surface, high fire resistance, difficult to crack, difficult to tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	Normal elasticity, smoothly surface, normal fire resistance, difficult to crack, Can be tear away. Fire performance & Smoke is Class 0 follow BS476 Part 6.	High elasticity, smoothly surface, normal fire resistance, difficult to crack, difficult to tear away.
Advice application:	Outdoor / Indoor. Flat surface, such as ducting	Outdoor / Indoor. Flat & Round surface, such as ducting and piping.	Indoor. Flat & Round surface, such as ducting and piping.	Outdoor/Indoor. Flat & Round surface, such as ducting and piping.
Application field :	Hotel, Building, Factory. Transportation (Car, board, train).	Hotel, Building, Factory. Transportation (Car, board, train).	Building, Factory.	Cleanroom Pharmacy and electronic industry.

Order example:

Aluminum layer sheet - type F2, size width 1200mm, with thickness 25mm, insulation black color, Aluminum layer code ALU-2 - Class 0; Code : S-W1200x25T-F2(ALU-2)-C0.

Aluminum layer sheet - type F2, size width 1200mm, with thickness 13mm, insulation black color, Aluminum layer code ALU-1 - Class 0; Code : S-W1200x13T-F2(ALU-1)-C0.

SHEET INSULATION WITH ALUMINIUM LAYER
Code : S - Wa x bT - F2 - Ci

3. SHEET INSULATION WITH GLUE LAYER (F3):

NANOFLEX insulation with adhesive layer structure is that the lower surface is glued by a layer of glue + silicone release paper, the other surface is black.
The adhesive layer is easy to apply and very sticky to adhere to surfaces such as steel, plastic, metal & non-metal etc.
There is a special non-dead glue that is used for ventilation pipes, cooling water pipes, hot water pipes.
High economic efficiency when used under normal conditions in constructions and factories.

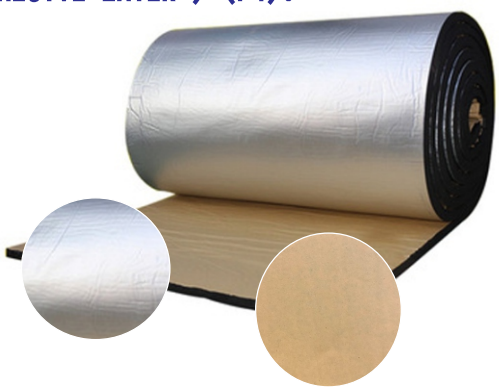
SHEET INSULATION WITH ADHESIVE LAYER
Code : S - Wa x bT - F3 - Ci

Order example:

- Sheet insulation with Adhesive layer - type F3, size width 1100mm, with thickness 25mm, insulation black color, with Glue layer (F3) - Class 1; Code : S-W1100x25T-B-F3-C1.

4. SHEET INSULATION ALL IN ONE (ONE ALUMINIUM & ONE ADHESIVE LAYER) (F4):

The aluminum layer is highly puncture and tear resistant. Contains flame retardants and can be used as the exterior of hot or cold insulation. This product also provides excellent vapor barrier performance. The outer sides of the leaves ensure near-zero water vapor permeability.Adhesive layer with peel off paper for easy application and excellent adhesion to surfaces such as steel, plastic, metal & non-metal, etc. There is a special glue that does not die specifically for ventilation pipes, cooling water pipes, hot water pipes.High economic efficiency when used in indoor and outdoor conditions in buildings and factories.



SHEET INSULATION ALL IN ONE
(ONE ALUMINIUM & ONE ADHEISVE LAYER)
Code : S - Wa x bT - F4 - Ci

Order example:

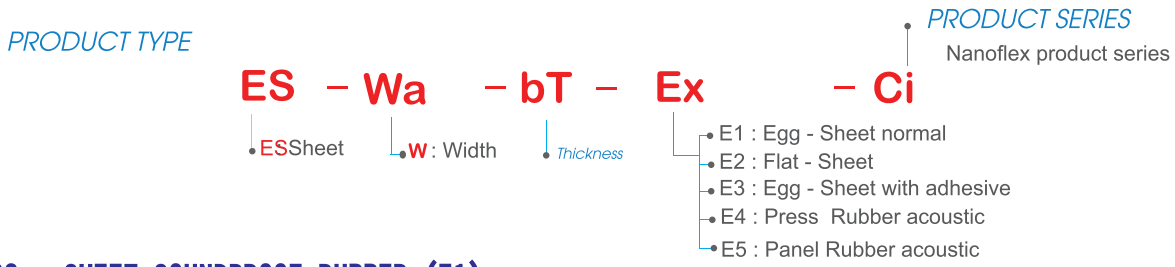
- Sheet insulation all in one (one Aluminium & one Adhesive layer), size width 1200mm, with thickness 25mm, Aluminum layer code ALU-2 - Class 0; Code products : S-W1200x25T-B-F4(ALU-2)-C0.

5. Standard Packing of roll type (Sheet area pes roll). Table 03

Thickness (mm)	Lengh (m)	Area / Roll (m2)		
		1.1m Width	1.2mm Width	1.4mm Width
6	10	S-W1100 x 6T (11m2/ roll)	S-W1200 x 6T (12m2/ roll)	S-W1400 x 6T (11m2/ roll)
10	10	S-W1100 x 10T (11m2/ roll)	S-W1200 x 10T (12m2/ roll)	S-W1400 x 10T (14m2/ roll)
13	10	S-W1100 x 13T (11m2/ roll)	S-W1200 x 13T (12m2/ roll)	S-W1400 x 13T (14m2/ roll)
15	10	S-W1100 x 15T (11m2/ roll)	S-W1200 x 15T (12m2/ roll)	S-W1400 x 15T (14m2/ roll)
20	10	S-W1100 x 20T (11m2/ roll)	S-W1200 x 20T (12m2/ roll)	S-W1400 x 20T (14m2/ roll)
25	10	S-W1100 x 25T (11m2/ roll)	S-W1200 x 25T (12m2/ roll)	S-W1400 x 25T (14m2/ roll)
32	10	S-W1100 x 32T (11m2/ roll)	S-W1200 x 32T (12m2/ roll)	S-W1400 x 32T (14m2/ roll)
38	10	S-W1100 x 38T (11m2/ roll)	S-W1200 x 38T (12m2/ roll)	S-W1400 x 38T (14m2/ roll)
50	10	S-W1100 x 50T (11m2/ roll)	S-W1200 x 50T (12m2/ roll)	S-W1400 x 50T (14m2/ roll)

Note : - Tolerance with thickness : ±2mm; Tolerance with width : ±10mm ;Tolerance with Leng : ±20mm

III. ACOUSTIC RUBBER



1. EGG - SHEET SOUNDPROOF RUBBER (E1):

NANOFLEX insulation is a acoustic absorber designed for use in a variety of different acoustic applications. To reduce noise air from the ventilation system and air conditioning (HVAC system), NANOFLEX soundproof material is glued to the box before and after axial fan system, making silencer box at location ducting go through wall, making soundproofing at the belows of pipe insulation, conducting target sound.

Nanoflex code number & product package :

Thickness (mm)	Width (mm)	Length (m)	M2/roll	Nanoflex code number / Area (m2)
20, 25, 32	1200	10	12	ES - W1200x20T-E1/E3 - Ci (12m2/ roll) ES - W1200x25T-E1/E3 - Ci (12m2/ roll) ES - W1200x32T-E1/E3 - Ci (12m2/ roll)
38,50	1150	10	11.5	ES-W1150x38T-E1/E3 - Ci (11.5m2/roll) ES-W1150x50T-E1/E3 - Ci (11.5m2/roll)

Table: Minimum Insertion Loss Request for NANOFLEX Egg Sheet insulation follow AS ISO 354-2006
(AS ISO 354-2006 Standard: Acoustics – Measurement of Sound absorption in a reverberation room)

Thickness of Nanoflex insulation material	Octave band center frequency (Hz)													Total insertion loss (dB(A))
	100	250	400	500	800	1000	1250	1600	2000	2500	3150	4000	5000	
	Minimum Insertion loss (dB (A))													
20 mmt	1	3	4	8	12	18	20	23	27	30	32	35	38	**18**
25 mmt	1	2	4	9	14	22	24	25	30	34	35	37	42	**21**
Using	Using for AC, VAV, FCU, Diffuser Air Grill, Pump system, Pipe water cooling													

Table: Minimum Insertion Loss Request for NANOFLEX Egg Sheet insulation follow AS ISO 11654 - 1997
(AS ISO 354-2006 Standard: Acoustics – Measurement of Sound absorption in a reverberation room)

Thickness of Nanoflex insulation material	Octave band center frequency (Hz)													Average of Absorption Coefficent
	100	250	400	500	800	1000	1250	1600	2000	2500	3150	4000	5000	
	Maximum Absorption Coefficent Sound α													
20 mmt	0.06	0.09	0.50	0.58	0.88	0.92	0.96	0.94	0.93	0.92	0.91	0.91	0.92	**0.92**
25 mmt	0.07	0.09	0.68	0.82	0.93	0.95	0.96	0.95	0.93	0.92	0.92	0.91	0.91	**0.95**
Using	Using for AC, VAV, FCU, Diffuser Air Grill, Pump system, Pipe water cooling													

EGG - SHEET RUBBER FOAM
Code : ES - Wa x bT - E1 - Ci

EGG - SHEET RUBBER FOAM WITH ADHESIVE
Code : ES - Wa x bT - E3 - Ci

2. FLAT - SHEET SOUNDPROOF RUBBER (E2)

Table: Minimum Insertion Loss Request for NANOFLEX Egg Sheet insulation follow AS ISO 11654 - 1997 (AS ISO 354-2006 Standard: Acoustics – Measurement of Sound absorption in a reverberation room)

Thickness insulation material	Octave band center frequency (Hz)													Average of Absorption Coefficent
	100	250	400	500	800	1000	1250	1600	2000	2500	3150	4000	5000	
	Maximum Absorption Coefficent Sound α													
9 mmt	0.07	0.05	0.30	0.40	0.50	0.68	0.70	0.82	0.80	0.82	0.78	0.74	0.72	**0.52**
13 mmt	0.06	0.07	0.33	0.47	0.55	0.83	0.87	0.95	0.96	0.95	0.86	0.88	0.93	**0.60**
15 mmt	0.07	0.07	0.35	0.52	0.57	0.84	0.87	0.95	0.94	0.90	0.90	0.90	0.91	**0.73**
20 mmt	0.07	0.05	0.47	0.60	0.80	0.85	0.91	0.94	0.90	0.89	0.89	0.90	0.95	**0.87**
25 mmt	0.07	0.06	0.64	0.74	0.92	0.94	0.95	0.94	0.89	0.88	0.92	0.97	0.95	**0.94**
32 mmt	0.08	0.09	0.78	0.86	0.96	0.98	0.94	0.93	0.91	0.92	0.96	0.96	0.96	**0.98**
40 mmt	0.1	0.12	0.91	0.94	0.92	0.91	0.91	0.93	0.92	0.93	0.94	0.93	0.94	**0.91**
50 mmt	0.11	0.13	0.95	0.95	0.89	0.88	0.88	0.90	0.91	0.91	0.92	0.92	0.93	**0.88**
Using	Using for AC, VAV, FCU, Diffuser Air Grill, Pump system, Pipe water cooling													

NANOFLEX Sheet insulation can make soundproof material . It conducting target sound room (walls, ceilings, floor).

FLAT- SHEET RUBBER FOAM
Code : ES - Wa x bT - E2 - Ci

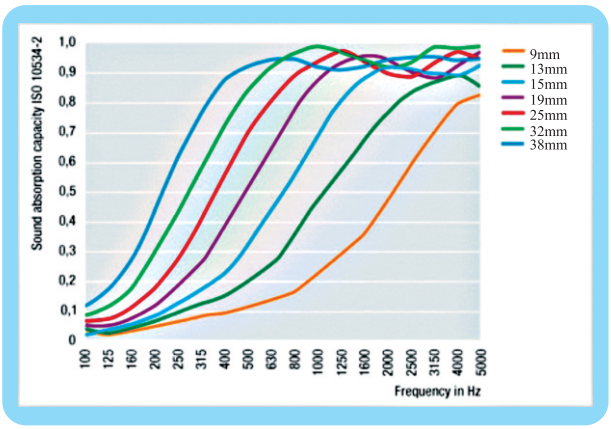


Table sound absorption coefficient of Nanoflex rubber foam soundproof - flat sheet

3. REBOUNDING ACOUSTIC RUBBER FOAM (E3)

NANOFLEX rebounding Rubber foam is high performance acoustic insulating material with main material is rubber foam insulation with density 250 ~ 350 kg/m^3.With design optimal performance at lower thickness than traditional materials, NANOFLEX high performance acoustic is a unique advance close cell acoustic insulation material..

REBOUNDING ACOUSTIC RUBBER FOAM
Code : ES - Wa x bT - E4 - Ci

Sound Absorption :

Application	Typical Reduction	Used System	Remak
Pipe lines	Up to 50dB	9, 13, 20mm	High performance silencer
Waste water pipes	Up to 25dB	9, 13, 20mm	High performance silencer
Washing machine	20dB	10, 15mm	High performance silencer
General Enclosures	Up to 30dB	15, 20, 25, 32mm	High performance silencer
Chiller, Generators	Up to 30dB	15, 20, 25, 32mm	High performance silencer
Telecommunication	Up to 20 dB	15mm	Noise Standard

Sound barrie transmission loss :

Relatively high density and high flow resistance offers beneficial sound transmission loss properties. May be suitable for use as an alternative to complex foam barrier multi layers

4. FIBER ACOUSTIC PANEL (E4)

NANOFLEX fiber panel is made of 100% NANOFLEX fiber. It is a good acoustic and decorative material with characteristics of environmental friendly, heat insulation, mildew proof, easy cutting, easy removal and simple installation etc.

Specifications:

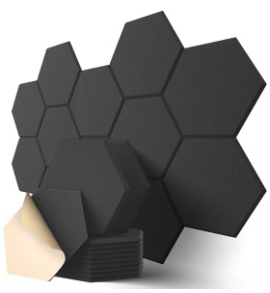
Standard thickness: 9mm/12mm
Size per piece: 1220mmx2420mm, fire retardant: available
Customization: color, pattern, size, thickness, etc. Installation: use glue, nail or velcro

Features:

With excellent sound absorbing performance. The NRC can be up to 0.98 sound absorption factor.
Easy to cut by knife, easy to install by glue or nail, will not inflate or shrink due to the change of temperature.
Easy dust removal and easy maintenance by vacuum cleaner or feather duster.

NANOFLEX Fiber Acoustic Panel

Frequency (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	NRC
Sound absorption coefficient (a)	0.11	0.25	0.18	0.26	0.37	0.47	0.58	0.69	0.84	0.95	1.10	1.13	1.13	1.02	0.99	0.91	0.91	1.13	0.75



5. Nanoflex vibration rubber harness flat sheet

Nanoflex vibrattion rubber harness flat sheet is product with high density, smooth surface, high hardness, goodtrength compared to other types of rubber.
Rubber special classification :
- Thickness : Rubber plate thickness 5mm, 10mm, 13mm, 15mm, 20mm, 25mm
- Width : 400 -600mm
- Length : According to customer requirements.
- Mechanical properties : Rubber bearing, rubber anti - vibration, shork..
- Material : NBR (Nitrile Butadien Rubber)

Vibration rubber harness flat sheet
Code : ES - Wa x bT - E6

Specification of Nanoflex Vibration rubber hardness sheet

No	Specification	Unit	Standard Test	Parameter
1	Color	Table color	ISO 105-A02:1993	Black
2	Surface			Smooth
3	Thickness	mm		3mm ~ 25mm
4	Density	g/cm3	ASTM D1622	1.35 g/cm3 ~ 2.0 g/cm3
5	Hardness	HB	TCVN 1595-1 2007	7 ~ 20 HB
6	Pressure	Mpa	ASTM D1621	1.3 Mpa ~ 6.0Mpa
7	Tensile strength	Mpa	ASTM D1622	2 Mpa ~ 3Mpa
8	Elongation	%	TCVN 4509:2006	200% ~ 300%
9	Temperature Service	ºC	GB/T8871	-30 ºC ~ +80 ºC

Dimension & selection by loads :

Type	Capacity		Deflection (mm)	Dimension (mm)		
	Recommend (Kg/cm2)	Max (Kg/cm2)		A(mm)	B(mm)	C(mm)
NRP-600x600x10	3.0	4.0	3	600	600	10
NRP-600x600x12	3.5	5.0	3	600	600	12
NRP-600x600x15	3.7	5.5	3	600	600	15
NRP-600x600x20	4.0	6.0	3	600	600	20
NSP-600x600x50	6.0	7.5	10	600	600	50

Application :

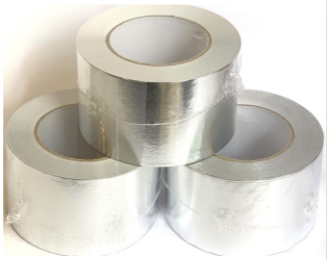
- Spec rubber is used widely in industry, chemicals, healthcare and consumer products.
- In the industrial sector, special rubber pads used primarily fo statistics machine vibration.
- In mining, special rubber used to protect piping and equiment from friction and shock.

PRODUCTS LIST:

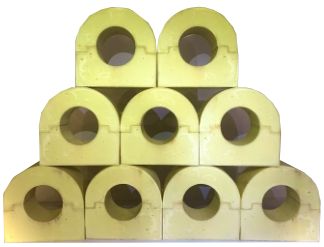
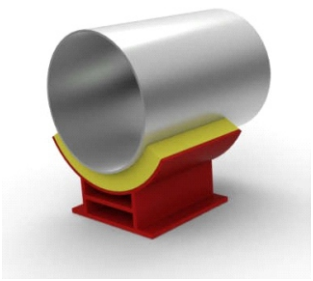
GASKET DUCT TAPE

			
NBR Gasket Duct Tape	EVA Gasket Duct Tape	PE Gasket Duct Tape	Fabrics & Fiber glass tape (High Temperature 350°C - 1000°C)

PVC Tape Series

			
PVC Black tape (High Quality)	PVC Black tape (Normal)	Aluminium PET Foil Tape (High Quality)	Aluminium Fiber Glass Foil Tape

PU foam Support

			
PU foam pipe support	Chiller shoe & PU foam support	Guide Shoe	Resting Shoe

ORTHER series

			
Glasswool pipe	Glasswool roll	Rockwool pipe	Rockwool Blanket

I.1. NBR GASKET DUCT - TAPE (type : 3W-GT-NBR)

Product introduction:

NBR Gasket Duct Tape are specially designed for sealing the duct joints, eliminating the risk of air leakage through the joints. Excellent compressive strength, no deformation during operation. It is provided in the form of pre-cut rolls available in various sizes to suit all duct flanges standards. Manufactured from foam rubber materials meeting the fire protection standards, with physical cross-linking, the absolute sealed structure helps to completely prevent the penetration of liquids and moisture, extending the life of the product. .Integrated adhesive layer available at the factory, specially designed can be used in many different temperature conditions, saving maximum costs and time during installation.

Code : NBR1

Code : NBR2

Technical Specifications NBR - Gasket Duct Tape

No	Specification	Unit	Standard Test	Result
1	Cell Structure		ASTM 2856	Close cell
2	Density	kg/m3	ISO 854:2006	**40-70kg/m3**
3	Color			Black
4	Material			Rubber Foam insulation
5	Rate Working Temperature	°C	ASTM E1131	-50°C - 110°C
6	Heat Thermal Conductivity	W/mK	ASTM C518	0.0343W/mK at 23°C
7	Fire Retardance		UL 94 & ASTM D635	Class V0 - HB
8	Under Layer			Silicone Coated Paper
9	Weight	kg		0.1kg/ roll @W25mm * 5mm * 10mL (±10%)
10	Tensile Strength	N/cm	ISO 1798 - 1987	≥2.5N/cm
11	Special of Adhesive glue			Japan Style (No die/ no dry)
12	Thickness	mm		3mm ; 5mm ; 6mm
13	Width	mm		25mm;30mm; 35mm; 50mm; 100mm; 200mm
14	Length	m		10m/ roll

Notes : Products specification might be change due to actual manufacturing conditions.

I.2. EVA GASKET DUCT - TAPE (type : 3W-GT-EVA)

Product introduction:

EVA Gasket Duct tape are specially designed for sealing the duct joints, eliminating the risk of air leakage through the joints. Excellent compressive strength, no deformation during operation. It is provided in the form of pre-cut rolls available in various sizes to suit all duct flanges standards. Manufactured from foam rubber materials meeting the fire protection standards, with physical cross-linking, the absolute sealed structure helps to completely prevent the penetration of liquids and moisture, extending the life of the product. .Integrated adhesive layer available at the factory, specially designed can be used in many different temperature conditions, saving maximum costs and time during installation.

Code : 3W-GT-EVA

Technical Specifications EVA Gasket Duct Tape

No	Specification	Unit	Standard Test	Result
1	Cell Structure		ASTM 2856	Close cell
2	Density	kg/m3	ISO 854:2006	25-60kg/m3
3	Color			Black
4	Material			EVA Foam
5	Rate Working Temperature	°C	ASTM E1131	-50°C to 110°C
6	Heat Thermal Conductivity	W/mK	ASTM C518	0.036W/mK at 0°C
7	Vacuum water Absortion	%		Max 8%
8	Under Layer			Silicone Coated Paper
9	Weight	kg		0.1kg/ roll @W25mm * 5mm * 10mL (±10%)
10	Tensile Strength	N/cm	ISO 1798 - 1987	≥2.5N/cm
11	Special of Adhesive glue			Japan Style (No die/ no dry)
12	Thickness	mm		5mm
13	Width	mm		25mm;30mm; 35mm; 50mm; 100mm; 200mm
14	Length	m		10m/ roll

Notes : Products specification might be change due to actual manufacturing conditions.

I.3. PE GASKET DUCT - TAPE (type : 3W-GT-PE)

PE Gasket Duct tape are specially designed for sealing the duct joints, eliminating the risk of air leakage through the joints. Excellent compressive strength. It is provided in the form of pre-cut rolls available in various sizes to suit all duct flanges standards. Manufactured from foam rubber materials meeting the fire protection standards, with physical cross-linking, the absolute sealed structure helps to completely prevent the penetration of liquids and moisture, extending the life of the product. .Integrated adhesive layer available at the factory, specially designed can be used in many different temperature conditions, saving maximum costs and time during installation.

Technical Specifications PE Gasket Duct Tape

Code : 3W-GT-PE

No	Specification	Unit	Standard Test	Result
1	Cell Structure		ASTM 2856	Close cell
2	Density	kg/m3	ISO 854:2006	28-35 kg/m3
3	Color			Black / Gray / White
4	Material			PE Foam

5	Rate Working Temperature	°C	GT/T8871	-20°C - 85°C
6	Heat Thermal Conductivity	W/mK	ASTM C177	0.033W/mK at 0°C
7	Vacuum water Absortion	%		Max 10%
8	Under Layer			Silicone Coated Paper
9	Adhesion at the Adhesive	kg		0.16 - 0.2kg/ 1 roll
10	Tensile Strength	N/cm	ISO 1798 - 1987	≥2.5N/cm
11	Special of Adhesive glue			Japan Style (No die/ no dry)
12	Thickness	mm		5mm
13	Width	mm		25mm;30mm; 35mm; 50mm; 100mm; 200mm
14	Length	m		10m/ roll

I.4. Fabrics & Fiber glass tape (High Temperature 350°C - 1000°C);(type : 3Wgasket - HT)

① E-glass insulation tape is made of E-glass yarn without wax (Finished with Amino Silame sizing), in the light of the specification like made by international standard for electric insulating material specification IEC 61067:1991 and GE of USA and Nitobo of Japan. It prossess of properties of fold durability if need be and then face impregnated processed with sizing wearre sisting and good impregnation.

Features :

- It has features of good inductivity, good insulation, high - temperatures resistance, and so on.

Code : 3W-GT-FGT

Application :

- Fiberglass tape can be used as and essential insulation, binding material for electric machinery and applicance in difference types of motors and generators, which would achieve reliable insulation performance, long working life and minimum volume and weight.

E-Glass Insulation Series

						
Foam tape name	Hit - Amid tape	Hit-Kabo tape	Hit glass tape	Hit Cera tape	Hit amid fabrics	Hit Kabo Fabrics
Max Working Temp	350°C	400°C	550°C	650°C - 1000°C	350°C	400°C
Thickness	0.25± 6.5mm	2±6mm	1±3mm	2±5mm	0.3±2.5mm	1.5±3.0mm
Width	4±500mm	25±200mm	25±200mm	20±200mm	1-2m	1-1.5m
Length	30m	30m	30m	30m	30m	30m

Weight : 1.7kg/ roll @W25mm * 3mm * 30mL (±10%)

I.5.Ceramic Fiber Fine Gasket (High Temperature 1260°C); (type : 3Wgasket - CF - Wa x bT - cL)

Ceramic fiber fine gaskets also have other names such as fireproof ceramic fiber gaskets for EI air duct systems. Specially designed for EI fireproof air duct flanges. This is a type of fireproof insulation material made from ceramic fiber Ceramic fiber, the main ingredient is silicon dioxide, has lightweight properties, low thermal conductivity, fire resistance and good insulation, can withstand high temperatures up to 1430 degrees Celsius.

Code : 3Wgasket - CF - Wa x bT - cL

Characteristic :

Good oil resistance, good chemical and solvent resistance.
Fireproof, low thermal conductivity,high heat resistance.
Anti-abrasion.
Excellent thermal shock resistance.
Continuous use limit 1260°C.
Melting point 1790°C.
High tensile strength and high elasticity.
Good level of sound insulation.
Can be stored at low temperatures.

Application:

Used for fireproof wind pipes at level EI 30; EI45 ;Ei60 ; EI90; Ei120.
Air duct for kitchen exhaust.
Insulation materials for tools and heating elements such as furnaces, heaters, etc
Used as insulation, sealing, and anti-corrosion materials for industry.

Sản phẩm		Tiêu chuẩn
Nhiệt độ tối đa (°C)		1430°C
Nhiệt độ làm việc khuyên dùng (°C)		<1260°C
Màu sắc		Trắng/ White
Tỷ trọng (kg/m3)		200
Thành phần hóa học	Al_2O_3	42-43
	SiO_2	53
	ZrO_2	-
	Al_2O_3 + Ti_2O_3	<1.2
	Na_2O + K_2O	<0.5
	CaO +MgO	<0.3

I.6 NBR PRESS GASKET DUCT TAPE (Type : 3W -GT-NBRP)

Product introduction:

Pressed rubber air duct gaskets are high quality products, exclusively produced on the most modern technological line today. The product has a very high density compared to conventional gaskets, ensuring absolute tightness of the air duct flange.

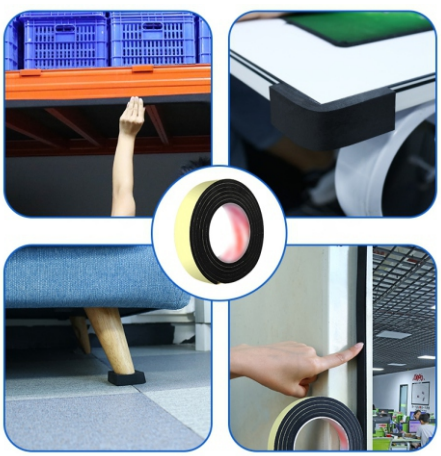
- Excellent compressibility, high flexibility and resistance to weather, abrasion, oxidation.
- Outstanding resistance to ozone and ultraviolet rays.
- Able to tolerate some chemicals.
- Closed cell structure helps prevent liquid, dust and air leakage.

Code : 3W-GT-NBRP

Technical Specifications NBRP - Gasket Press Duct Tape

No	Specification	Unit	Standard Test	Result
1	Cell Structure		ASTM 2856	Close cell
2	Density	kg/m3	ISO 854:2006	200-400kg/m3
3	Hardness - Shore A		TCVN 1595-1:2013	36
4	Elongation at break		TCVN 4509:2023	103,1%
5	Rate Working Temperature	°C	ASTM E1131	-50°C - 110°C
6	Heat Thermal Conductivity	W/mK	ASTM C518	0.0283 W/m.K at 23°C
7	Fire Retardance		UL 94 & ASTM D635	Class V0 - HB
8	Under Layer			Silicone Coated Paper
9	Weight	kg		0.6 kg/roll (±10%) @W25mm x 5mmTx10mL
10	Tensile Strength	N/cm	TCVN 4509:2023	0.3MPa
11	Special of Adhesive glue			Japan Style (No die/ no dry)
12	Thickness	mm		3mm ; 5mm ; 6mm
13	Width	mm		25mm;30mm; 35mm; 50mm; 100mm; 200mm
14	Length	m		10m/ roll

Notes : Products specification might be change due to actual manufacturing conditions.



II.1 PVC Duct Tape for insulation high quality ; Type : 3Wtape - PVCS

Description:

Black PVC Tape insulation is a special adhesive tape used to insulation rubber foam insulation. The product is composed of moisture -resistant black PVC film and high - perfomance acrylic adhesive. Adhesive layer is proctected by easy - release silicon - release paper.

PVC Black tape used in HVAC systems.

Application for connections in civil and industry.

Code : 3W-PVCS

Technical data product /

Code	Thickness	Width	Length	Packing	Flamebility
3Wtape - PVCS W72X50mL 3Wtape - PVCS W48X50mL	110 Microns	72mm 48mm	50m	16pcs/ box 24pcs/ box	Exitinguishing

Test Results at the Institute of Tropical Technology /

No	Type of test	Test Method	Result
1	Adhesion with foam rubber surface *Độ bám dính với bề mặt cao su xốp (N/mm)*	ASTM D1876-2015	24,3N/50mm
2	Tensile strength MPa	ASTM D412	12.46
3	Service Temperature	ASTM E1131	Temperature resistance of sample < 240°C

II.2 PVC Duct Tape for insulation - normal series ; Type : 3Wtape - PVC

Description:

Black PVC Tape insulation is High-quality plastic PVC foil in combination with an ageing stable solvent-based adhesive, a normal adhesive tape used to insulation rubber foam insulation . The product isn't using silicon paper.

Application :

- PVC Black tape used in HVAC systems (indoors and outdoors)
- Application for connections in civil and industry (cars, furniture, etc.)

Code : 3W-PVC

Technical data product :

Code	Thickness	Width	Length	Packing	Flamebility
3Wtape - PVC W72X50mL 3Wtape - PVC W48X50mL	110 Microns	72mm 48mm	25m	45 pcs/ box 60 pcs/ box	Exitinguishing

Test Results at the Institute of Tropical Technology:

No	Type of test	Test Method	Result
1	Adhesion with foam rubber surface *Độ bám dính với bề mặt cao su xốp (N/mm)*	24,3N/50mm	ASTM D1876-2015
2	Tensile strength MPa	15N/cm	EN60454-2-1995
3	Insulation Resistance	$1.0x10^{11}$ ohms	EN60454-2-1995

II.3. Aluminium Foil Tape - Normal ; type : 3Wtape - AL - NS

Dòng băng dính bạc loại thường ; chủng loại : 3Wtape - AL - NS

Products Decription / *Mô tả sản phẩm:*

This is a normally aluminum adhesive tape with a thickness of 36 microns aluminum film, composed of an aluminum film substrate combined with an insoluble pending acrylic adhesive layer protected by a layer of easy silicon release paper, the liner is a layer white silicon. The aluminum foil has a fire resistant, effective flame retardant, and prevents harmful U.V rays

Đây là băng dính bạc nhôm loại thông thường với độ dày màng nhôm 36 microns, cấu tạo bởi lớp nền màng nhôm kết hợp với lớp keo dính acrylic hòa tan chờ khôngchết được bảo vệ bởi 1 lớp giấy silicon dễ bóc, lớp lót là lớp silicon màu trắng. Lớp lá nhôm có tách dụng chịu lửa, chống cháy hiệu quả và ngăn ngừa các tia U.V gây hại.

Featured :

- The aluminum back panel provides excellent reflection of both heat and light.
- The low moisture transmission rate makes silver tape become a very good barrier of moisture.
- Service temperature from -20 ° to + 80 ° C (-4 ° to + 176 ° F).

Đặc trưng:

- *Mặt ngoài là lớp màng nhôm cung có tính năng phản xạ của cả nhiệt và ánh sáng.*
- *Tốc độ truyền hoi ẩm thấp làm cho Băng dính bạc AT-01(1605) trở thành một lớp rào cản hoi ẩm rất tốt.*
- *Nhiệt độ phục vụ từ -20 ° đến + 80 ° C (-4 ° đến + 176 ° F).*

Technical data product / *Bảng thông số kỹ thuật sản phẩm*

No	ITEM	RESULT	TEST METHOD
1	Backing Thickness	16 Micron	PSTC - 133 / ASTM D 3652
2	Total thickness	36 Micron	PSTC - 133 / ASTM D 3652
3	Adhesive to steel	12N/25mm	PSTC - 101 / ASTM D 3330
4	Tensile Strength	25N/25mm	PSTC - 131 / ASTM D 3759
5	Elongation	3.0%	PSTC - 131 / ASTM D 3759
6	Service Temperature	-20- 80°C	

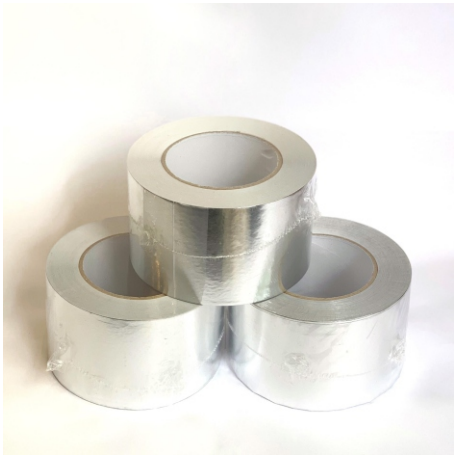
Code Mã	Thickness Độ dày	Width Bản rộng	Length Chiều dài	Packing Đóng gói	Flamebility Chống cháy
3W tape - AL-NS- W48x25mL	36 Microns	48mm	25m	36 pcs/ box	Exitinguishing

Notes : Products specification might be change due to actual manufacturing conditions. / Thông số kỹ thuật có thể thay đổi theo thực tế điều kiện sản xuất

II.4. Aluminum Foil MPET Tape Super Sticky ; type : 3Wtape - AL - PET

Băng dính bạc Màng MPET siêu dính ; chủng loại: 3Wtape - AL - PET

Products Decription / *Mô tả sản phẩm:*



MPET Aluminium tape is tape with adopting Aluminum Foil-Polyester Laminate as backing, coated with a high performance solvent acrylic adhesive, protected by an easy-release silicone paper.

Temperature resistance of MPET Aluminium Tape < 230°C

Băng dính bạc màng tron MPET Thông qua lớp phủ nhôm nhôm-Polyester làm lớp nền, được phủ một lớp keo acrylic dung môi hiệu suất cao, được bảo vệ bằng giấy silicone dễ bóc.

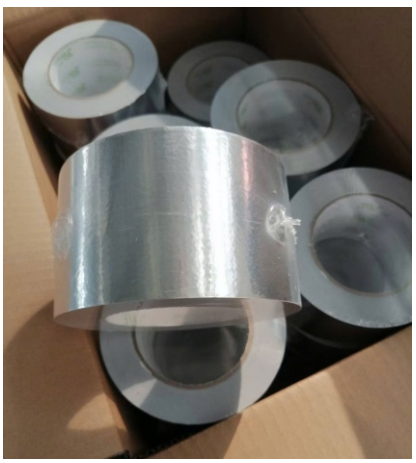
Băng dính bạc màng trơn MPET chịu được nhiệt độ < 230°C

Test Results at the Institute of Tropical Technology / *Kết quả thử nghiệm ở Viện Kỹ Thuật Nhiệt Đới*

No	Type of test Loại thử nghiệm	Test Method Phương pháp test	Result Kết quả
1	Adhesion with foam rubber surface *Độ bám dính với bề mặt cao su xốp (N/mm)*	ASTM D1876-2015	30,6N/50mm
2	Tensile strength MPa *Độ bền kéo*	ASTM D412	10.06
3	Service Temperature Dải nhiệt độ phục vụ	ASTM E1131	Temperature resistance of sample < 230°C Mẫu chịu được nhiệt độ < 230°C

Technical data product / *Bảng thông số kỹ thuật sản phẩm*

No	ITEM	RESULT	TEST METHOD
1	Backing Thickness	20 Micron	PSTC - 133 / ASTM D 3652
2	Total thickness	55 Micron	PSTC - 133 / ASTM D 3652
3	Adhesive to steel	15 N/25mm	PSTC - 101 / ASTM D 3330
4	Tensile Strength	50 N/25mm	PSTC - 131 / ASTM D 3759
5	Elongation	20%	PSTC - 131 / ASTM D 3759
6	Service Temperature	-30- 100°C	



Code Mã	Thickness Độ dày	Width Bản rộng	Length Chiều dài	Packing Đóng gói	Flamebility Chống cháy
3W tape - AL-PET-W48x50mL 3W tape - AL-PET-W72x50mL	55 Microns	**48mm** **72mm**	**50m**	36 pcs/ box 24 pcs/ box	Exitinguishing

Notes : Products specification might be change due to actual manufacturing conditions. / Thông số kỹ thuật có thể thay đổi theo thực tế điều kiện sản xuất

V. Aluminium Foil Glass Tape ; type: 3Wtape - AL - FGC

Dòng băng dính bạc cốt sợi thủy tinh chịu nhiệt ; chủng loại: 3Wtape - ASL - FGC

Products Decription / *Mô tả sản phẩm:*

- Aluminium Glass fiber Tape is the most advanced aluminium adhesive tape, the surface is reinforced by a thin fiberglass film, making the highest strength adhesive tape highly resistant to fire. Acrylic adhesive layer helps to adhere firmly to the surface of the material
- Low moisture vapor transmission rate makes Tape an excellent vapor barrier.
- Service Temperature range from -20 ~ +80 °C (-4 ~ +176 °F)
- Mas Temperature Resistance to broken of aluminum films up to 450°C
- *Băng dính bạc cốt sợi thủy tinh là băng dính bạc cao cấp nhất , bề mặt được gia cố thêm bởi lớp màng sợi thủy tinh mỏng giúp băng dính có độ dai nhất có khả năng chống cháy cao . Lớp keo acrylic giúp bám dính chắc chắn vào bề mặt vật liệu*
- *Tốc độ truyền hoi ẩm thấp làm cho trở thành một rào cản hoi tuyệt vời.*
- *Phạm vi nhiệt độ dịch vụ từ -20 +80 °C (-4 ~ +176 F)*
- *Khả năng chịu nhiệt phá hủy của lớp màng nhôm lên tới 450 °C*

Test Results at the Institute of Tropical Technology / ***Kết quả thử nghiệm ở Viện Kỹ Thuật Nhiệt Đới***

No	Type of test Loại thử nghiệm	Test Method Phương pháp test	Result Kết quả
1	Adhesion with foam rubber surface *Độ bám dính với bề mặt cao su xốp (N/mm)*	ASTM D1876-2015	19,2N/50mm
2	Tensile strength MPa *Độ bền kéo*	ASTM D412	45,84 Mpa
3	Service Temperature Dải nhiệt độ phục vụ	ASTM E1131	Temperature resistance of sample < 450°C Mẫu chịu được nhiệt độ < 450°C

Technical data product / ***Bảng thông số kỹ thuật sản phẩm***

No	ITEM	RESULT	TEST METHOD
1	Backing Thickness	110 Micron	PSTC - 133 / ASTM D 3652
2	Total thickness	230 Micron	PSTC - 133 / ASTM D 3652
3	Adhesive to steel	6 N/25mm	PSTC - 101 / ASTM D 3330
4	Tensile Strength	450 N/25mm	PSTC - 131 / ASTM D 3759
5	Elongation	20%	PSTC - 131 / ASTM D 3759
6	Service Temperature	-40- 100°C	

Code Mã	Thickness Độ dày	Width Bản rộng	Length Chiều dài	Packing Đóng gói	Flamebility Chống cháy
3W tape - AL-FGC-W48x25mL 3W tape - AL-FGC-W72x50mL	230 Microns	**48mm** **72mm**	**50m**	30 pcs/ box 18 pcs/ box	Exitinguishing

Notes : Products specification might be change due to actual manufacturing conditions. / Thông số kỹ thuật có thể thay đổi theo thực tế điều kiện sản xuất

VI: Aluminium Tape caro ; Type : Alu - caro

Products Decription /

Alu- silver film adhesive tape is made from 2 outer layers of pure aluminum foil and 1 layer of natural kraft paper. These layers are bonded together with F/R glue and reinforced with 3-dimensional fiberglass scrim. It is ideally used as saking and insulation under roofs, in walls behind cladding or under wooden floors, for commercial and residential buildings. Combined with glass wool/mineral wool/insulating foam. Excellent reflective surface layer as a vapor barrier and heat insulator for air ducts, pipes.

Technical data product /

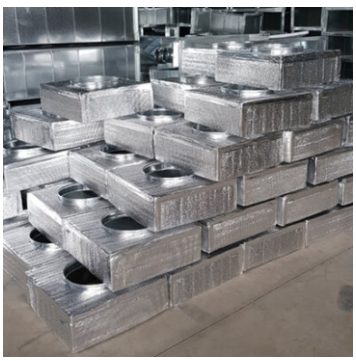
Code : 3Wtape - Alu - Caro

Code	Thickness	Width	Length	Packing	Flamebility
3Wtape - Alu - Caro W48 x 25met	77 micron	48mm	25met	36 pcs / box	Exitinguishing

Test Results at the Institute of Tropical Technology /

PROPERTIES	METRIC	ENGLISH	TEST METHOD
Backing Thickness	37 Micron	1.48 Mil	PSTC-133 / ASTM D 3652
Total Thickness	77 Micron	3.06 Mil	PSTC-133 / ASTM D 3652
Adhesion to Steel	18 N/25mm	64.8 Oz./In.	PSTC-101 / ASTM D 3330
Tack Rolling Ball	20 cm	8.0 In.	PSTC-6 / ASTM D 3121
Tensile Strength	100 N/25mm	22.7 Lb/In	PSTC-131 / ASTM D 3759
Elongation	3.0%	3.0%	PSTC-131 / ASTM D 3759
Service Temperature	-30 ~ +120 °C	-22 ~ +248 °F	
Applying Temperature	+10 ~ 40 °C	+50 ~ +105 °F	

Image Application & Pakage






II.8 : Self - Bonding Tape 35kV

Products Decription /

Self-bonding tape (also known as self-amalgamating or self-fusing tape): This is a type of tape that contains no adhesive, but when wrapped around itself, the layers fuse together to form a solid, moisture-resistant, and electrically insulating layer.

35kV: Indicates the maximum operating voltage – the tape is suitable for systems with voltages up to 35 kilovolts (35,000 volts)

Code : 3Wtape - WPRT35KV - J30

Technical data product /

Code	Thickness	Width	Length	Packing	Flamebility
Self - Bonding Tape 35KV 3Wtape - WPRT35KV - J30	0.76mm	5yard	25met	120 pcs / box	Exitinguishing

Test Results at the Institute of Tropical Technology /

No	Physical Properties	Test Method	Value (Eng)
1	Total Thickness	ASTM D 4325	0.76mm
2	Range Temperature Resistance	ASTM D 4325	-18°C to 105°C
3	Water absorption capacity	ASTM D570	0.56%
4	Ozone resistance	ASTM D4235	Pass
5	Elongation	ASTM D4235	>700%
6	Insulation resistance	ASTM D4325	10^15 Ohm - cm
7	Dielectric strength	ASTM D4325	35 kV/mm
8	Dielectric constant	ASTM D4325	32 kV/mm

II.6. OPP Packaging Tape ; Type: 3Wtape - Pt02

3Wtape OPP packing tapes have excellent adhesion. Also it's an Eco-friendly tape which contains no organic solvents. Tapes have both transparent and colors printing style optional, we also provide the design of plate making and printing services.

Code : 3Wtape - PT02

OPP Packaging Tape

Code	Thickness (mm)	Adhesive	Backing	Liner	180°C Peeling Strength	23°C Static Shear Holding Power (hr/kg*inch2)
3W tape PT 02	0.04-0.06	Water Based Acrylic	BOPP Film	≥ 0.6-1.0	≥ 24	Have Both Transparent & Colors Printing style

II.9. Vihation Rubber Harness Flat Sheet

Products Decription /

Vibration rubber harness flat sheet is product with high density, smooth surface, high hardness, good strength compared to other types of rubber.
Rubber special classification :
- Thickness : Rubber plate 5mm ; 10mm ; 13mm ; 15mm ; 20mm ; 25mm
- Width : 400mm - 600mm.
- Length : According to customer requirements.

Mechanical properties : Rubber bearing , rubber anti - vibration, shock..
Material : NBR (Nitrile Butadien Rubber)

Code : CSC S-aW x bT - cL

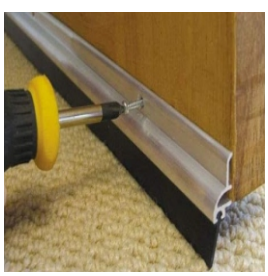
Technical data product /

No	Physical Properties	Unit	Standard Test	Parametter
1	Color	Table color	ISO 105 - A02: 1993	Black
2	Surface			Smooth
3	Thickness	mm		3mm ~ 5mm
4	Density	g/cm3	ASTM D1622	1.35g/cm3 - 2.0g/cm3
5	Hardness	HB	TCVN 1595 -1 : 2007	7~20 HB
6	Pressure	Mpa	ASTM D1621	1.3 Mpa ~ 6.0 Mpa
7	Tensile Strength	Mpa	ASTM D1622	2 Mpa ~ 3Mpa
8	Elongation	%	TCVN 4509 : 2006	200% -300%
9	Temperature Service	°C	GB/T8871	-30°C to 80°C



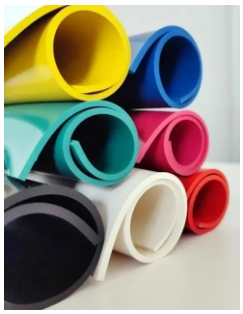




II.10. Heat and oil resistane silicone rubber



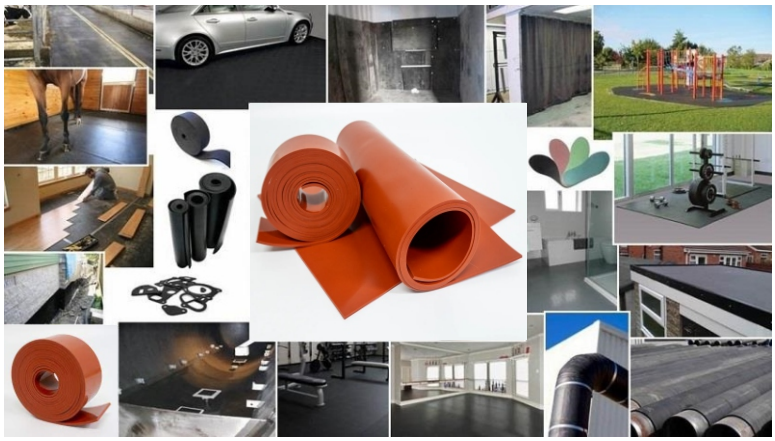
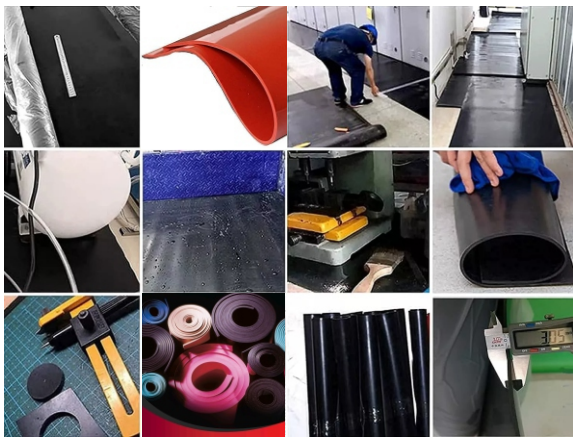
High temperature resistant silicone rubber with high elasticity, can withstand high temperatures up to 250°C, so it is often used in painting lines, or machine parts, or silicone gaskets, silicone orings, silicone gaskets in autoclaves, drying ovens, cold storage door gaskets, glass door gaskets, lampshade gaskets. Special use as GASKET for Kitchen Ducting ventilation system.

Made from heat-resistant silicone with high elasticity, good heat resistance, good flexibility, good insulation, especially easy to extrude the smallest machine parts, with the highest requirements.

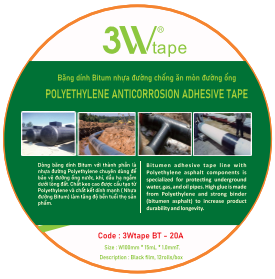
Technical data product /

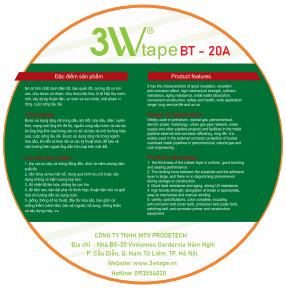
No	Physical Properties	Value
1	Tensile strength	3.0 Mpa
2	Elongation	200%
3	Hardness (Shore A)	25~35 Shore A
4	Temperature range	-40°C - 300°C
5	Density	0.6~0.95g/cm3
6	Thermal conductivity	0.06W/mK
7	Thickness (mm)	3mm ; 4mm; 5mm ; 6mm ; 8mm; 10mml 12mm; 15mm ; 20mm.
8	Color	Red ; grey, black, blue..
9	Material	Silicone Rubber

Image application

II.11 : Polyethylen Anticorrostion Adhesive Tape ; Type : 3WTape - BT -20A





Products Decription /

Bitumen adhesive tape line with Polyethylene asphalt components is specialized for protecting underground water, gas, and oil pipes. High glue is made from Polyethylene and strong binder (bitumen asphalt) to increase product durability and longevity.

Features :

It has the characteristics of good insulation, excellent anti-corrosion effects , high mechanical strength, collision resistance, aging resistance, small water absorption, convenient construction, safety and health, wide application range, long service life and so on.

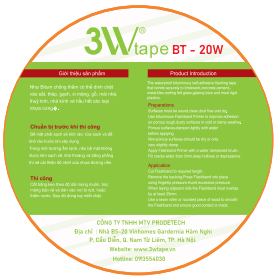
Scope of application :

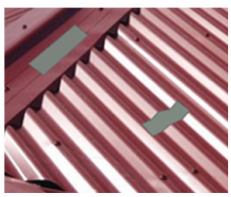
Widely used in petroleum, natural gas, petrochemical, electric power, metallurgy, urban gas pipe network, water supply and other pipeline projects and facilities in the metal pipeline external anti-corrosion efficiency, long life. It is widely used in the external corrosion protection of buried overhead metal pipelines in petrochemical, natural gas and coal engineering.

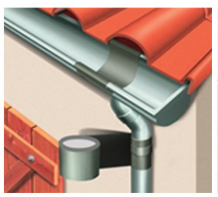
Product advantage :

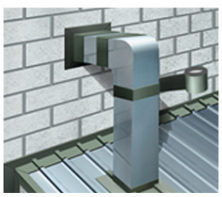
1. The thickness of the rubber layer is uniform, good bonding and sealing performance.
2. The binding force between the substrate and the adhesive layer is large, and there is no degumming phenomenon during storage or construction.
3. Good heat resistance and aging, strong UV resistance.
4. high tensile strength, elongation at break is appropriate, easy to mechanize and manual winding.
5. variety, specifications, color complete, including.
6. anti-corrosion belt (inner belt), protection belt (outer belt), patching belt, anti-corrosion primer and construction equipment.

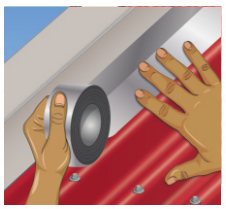
II.12 : Self - Adhesive flashing Tape ; Type : 3WTape -BT-20W

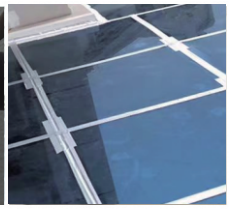












III.1. PU Foam Support

Foam bearings are used in many different application areas by means of the physical properties, mechanical optimization. Commonly used in the production of foam insulated refrigerators, solar energy water heaters, insulated pipe or linen storage devices in general.

Bearing foam was a result of mixing white and black foam foam billion certain practices.

Foam pillows are usually processing plants bearing with diameter, insulation thickness varies according to the needs of the customer.

Products Description:

Reliability in terms of use	PU Foam can withstand temperatures from –200ºC to 100ºC
The ability to absorb water	PU Foam whith low gas permeability
The fire	Like all other organic original insulation, PU Foam is flammable. However, the ability and the flow rate can adjusted to fit each building. Fighting capabilities of the panel can be significantly reduced by surface coating material, for example steel sheet surface...
Thermal	At the rate of 150-200kg/m^3, the volume of polyurethane in PU Foam bearing is about 3%, the remaining 97% of the foam block is air
The deformation	Bearing foam a mixing will swell filled area containing the original. It is because of this characteristic that PU Foam easily be manipulated into a fixed shape (square round pillows foam consists of two pieces of yin and yang) and convenient in transportation and installation

Technical data product /

Properties	Unit	Standard	Index
Core density	kg/m3	ASTM D1622	160/190
Compresive Strenght	Mpa	ASTM D1621	2.1
Thermal conductivity	W/m.K	ASTM C518	0.0292
Water Absorption	%% (v/v)	ASTM D2842	0.17
Closed cell content	%	ASTM D2856	95
Tensile Strength	Mpa	ASTM D1623	6.69 (at 200C)

Features:

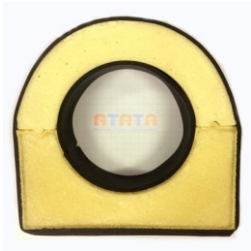
Good insulation: withstand temperatures from -200C to 100C.

Loading capacity up to 2.1 Mpa. The low water absorption, surface contact is coated waterproof, durable use.

Lightweight: given the structure of the air bubbles, hold the foam cells for easy transportation and installation.

Especially with PU Foam bearing no physical harm when installed and used, good cohesion.

PU Foam Support Square
code : PUS - aDxbT-L



PU Foam Support Circle
code : PUC - aDxbT-L

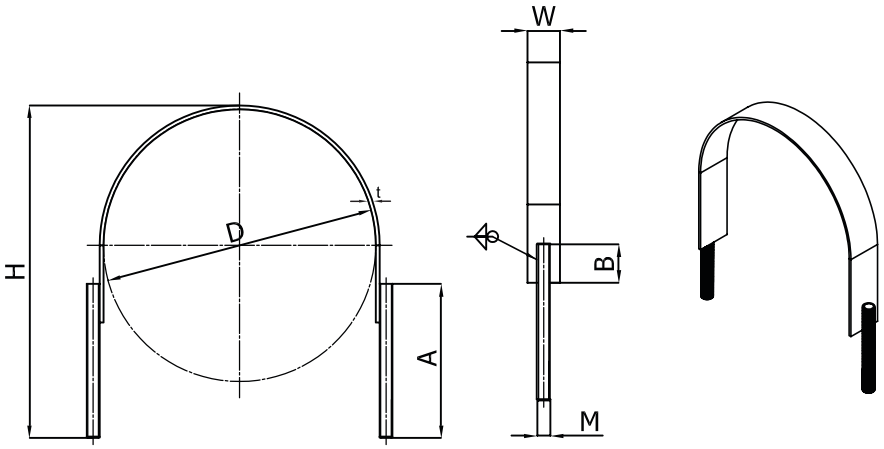
PU Foam Support 120 Degree
code : PUD - aDxbT-L

Wooden Support
code : PUW - aDxbT-L

Nanoflex code number & product package :

TABLE DIMENSION OF NANOFLEX PU FOAM SUPPORT			
Inside Diameter (mm)		Thickness of Pu Foam Support	Length of Pu Foam Support
DN	Real size diameter	(mm)	(mm)
15A	22	25,32,40, 50	40, 50, 80, 100, 200
20A	28	25,32,40, 50	40, 50, 80, 100, 200
25A	34	25,32,40, 50	40, 50, 80, 100, 200
32A	43	25,32,40, 50	40, 50, 80, 100, 200
40A	49	25,32,40, 50	40, 50, 80, 100, 200
50A	60	25,32,40, 50	40, 50, 80, 100, 200
65A	76	25,32,40, 50	40, 50, 80, 100, 200
80A	89	25,32,40, 50	40, 50, 80, 100, 200
100A	114	40, 50	40, 50, 80, 100, 200
125A	140	40, 50	40, 50, 80, 100, 200
150A	168	50	40, 50, 80, 100, 200
200A	219	50	40, 50, 80, 100, 200
250A	273	50	40, 50, 80, 100, 200
300A	325	50	40, 50, 80, 100, 200
350A	355	50	40, 50, 80, 100, 200
400A	406	50	40, 50, 80, 100, 200
450A	458	50	40, 50, 80, 100, 200
500A	508	50	40, 50, 80, 100, 200
We can produce upon your request			

III.2. ULAR



Products Description:

Material:

- Steel,
- Aluminum,
- Stainless steel

Finishing Surface:

- Powder coating
- Alkyd paint
- Hot deep Galvanized
- Zinc coating

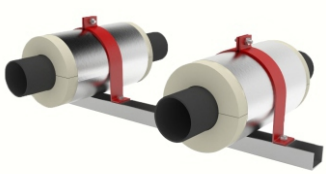
Thickness:

- 1,5mm; 2,0mm; 2,5mm; 3,0mm

Technical data product:

Code	DN	D (mm)	H (mm)	A (mm)	B (mm)	M (Ty Ren)	W (mm)
Ular 15A	15	21.7	47	40	10	M8	25; 30
Ular 20A	20	27.2	53	40	10	M8	25; 30
Ular 25A	25	34.0	60.0	40	10	M8	25; 30
Ular 32A	32	42.7	68	40	10	M8	25; 30
Ular 40A	40	48.6	75	40	10	M8;M10	25; 30; 40
Ular 50A	50	60.5	96	50	10	M8;M10	25; 30; 40
Ular 65A	65	76.3	120	60	12	M8;M10	25; 30; 40
Ular 80A	80	89.1	134	60	12	M8;M10	25; 30; 40
Ular 100A	100	114.3	154	60	15	M8;M10	25; 30; 40
Ular 125A	125	139.8	185	70	20	M8;M10	25; 30; 40
Ular 150A	150	165.2	213	70	20	M8;M10	25; 30; 40
Ular 200A	200	216.3	282	90	20	M10;M12	25; 30; 40; 50
Ular 250A	250	267.4	336	90	20	M10;M12	25; 30; 40; 50
Ular 300A	323	325	375	90	20	M12	40; 50
Ular 350A	357	375	435	90	20	M12	40; 50
Ular 400A	409	430	485	90	20	M12	40; 50

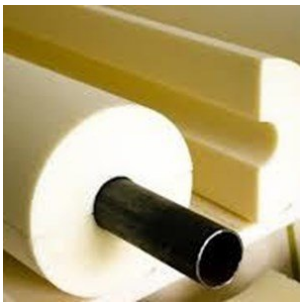


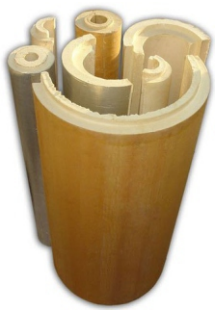



Other size can be produce upon request with difference specification.

III.3 : PIR Foam Support

- Pir pipe foam (Polyisocyanurate pipe foam) insulation is new professional cryogenic insulation material with high technology using so much in oil and petro factory manufacturer. With quality manager system ISO 9001:2008 and 5S standards of production. We are committed supply to market PIR pipe foam insulation with high quality and good price for use.
- PIR better than common polyurethane foam both in physical properties and fireproof performance, especially on cold insulation effects and fire retarding performance. PIR can be used in adiabatic demand of pipelines and equipment within -196 °C ~ + 150 °C it also provides the best efficient and stable cold insulation effects for Liquefied Nitrogen (LN - 196 °C), Liquefied Natural Gas (LNG, -162°C), Liquefied Ethylene (LEG, -104 °C) PIR pipe foam insulation which our supply is using origin material foam famous company from American, Japan, Korean, Thailand, Singapore..
- The study evaluated the degree to which toxic product were released looking at toxicity time release profiles and lethality of doses released in a range of flaming on flaming and poorly ventilated fires and concluded that PIR generally released a considerably higher level of toxic products than the other insulating material studied (PIR PUR EPS -> PHF, glass and stone wools also studied).

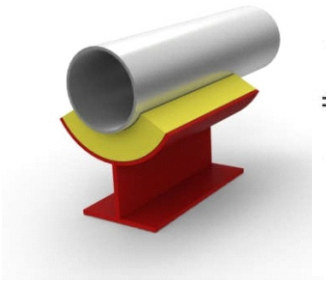


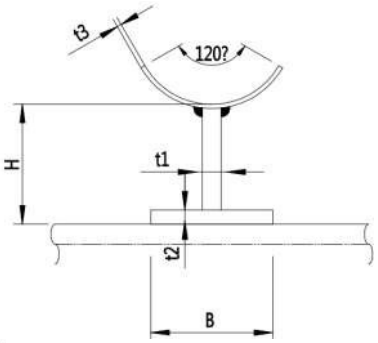
Technical data product:

Discription	Unit	Standard Test Method	Result	Remark
Resistance to Fire		Euro class BS2D0, DIN 4102	Class B2	
Molded Density	Kg/m3		50 kg/m3	
Clossed cells content	%	ASTM D1622	>92KG/M3	
Initial thermalconductivity @23°C	W/mK		0.024	
Dimensional strength (perpendicular to the main plan of the panel)	kPa		170	
Dimensional stability (linear changes) 24hours at -25°C	%		Max 1%	
Dimensional stability (linear changes) 24hours at 70°C	%		Max 1%	
The proposed service temp			-196°C -> 150°C	

III.4 : Chiller Shoe

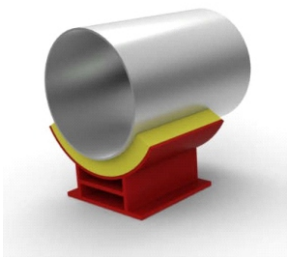
Metarial : - Pre galvanized steel (PG) - Hot Dip galvanized (HDG) - Powder (PC)

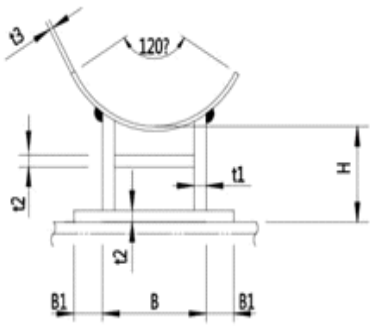




Pipe	L	B	H	C	T1	T2	T3
2.1/2”	300	75	100	20	6	9	6
3”	300	150		20	9	9	6
4”	300	150		20	9	9	6
5”	300	150		20	9	9	6
6”	300	150		20	9	9	6

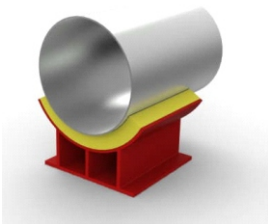
Code : CS1

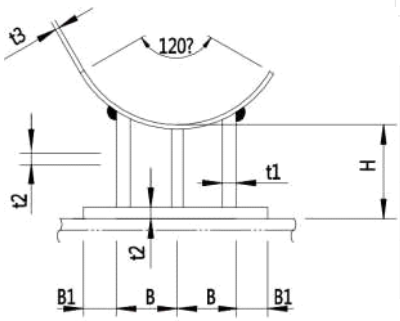




Pipe	L	B	B1	H	G	T1	T2	T3
8”	300	150	30	100	400	12	12	6
10”	300	150	30	100	400	12	12	6
12”	300	200	50	100	400	12	12	9
14”	300	200	50	100	400	12	12	9
16”	300	200	50	100	400	12	12	9
18”	300	200	50	100	400	12	12	9
20”	300	250	60	100	500	12	12	9
22”	300	250	60	100	500	12	12	9

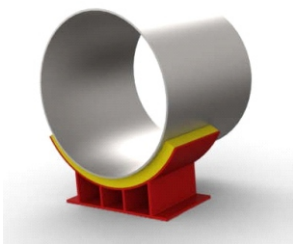
Code : CS2

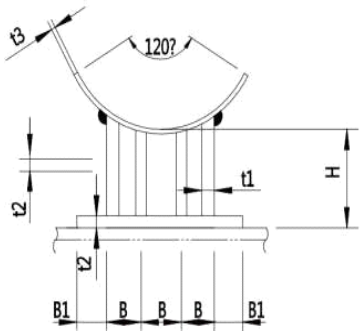




Pipe	L	B	B1	H	G	T1	T2	T3
24”	350	125	60	100	500	12	12	9
26”	350	125	60	100	500	12	12	9
28”	350	175	60	100	500	12	12	9

Code : CS3





Pipe	L	B	B1	H	G	T1	T2	T3
30”	350	150	80	100	600	12	12	9
32”	350	150	80	100	600	12	12	12

Code : CS4

Other size can be produce upon request with difference specification.

III.5 : Resting Shoe

Metarial : - Pre galvanized steel (PG) - Hot Dip galvanized (HDG) - Powder (PC)

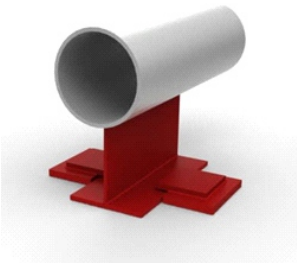
Code : RS1

Pipe	L	B	H	C	T1	T2
2.1/2”	300	75	150	200	6	9
3”	300	150		200	9	9
4”	300	150		200	9	9
5”	300	150		200	9	9
6”	300	150		200	9	9

Code : RS2

Pipe	L	B	B1	H	G	T1	T2
8”	300	150	30	170	40	12	12
10”	300	150	30	165	40	12	12
12”	300	200	50	175	40	12	12
14”	300	200	50	175	40	12	12
16”	300	200	50		40	12	12
18”	300	200	50		40	12	12
20”	300	250	60		40	12	12

III.6 : Guide Shoe



Code : GS1

Pipe	L	B	H	C	T1	T2
2.1/2”	300	75	150	200	6	9
3”	300	150		200	9	9
4”	300	150		200	9	9
5”	300	150		200	9	9
6”	300	150		200	9	9

Code : GS2

Pipe	L	B	B1	H	G	T1	T2
8”	300	150	30	170	40	12	12
10”	300	150	30	165	40	12	12
12”	300	200	50	175	40	12	12
14”	300	200	50	175	40	12	12
16”	300	200	50		40	12	12
18”	300	200	50		40	12	12
20”	300	250	60		40	12	12

Other size can be produce upon request with difference specification.

III.7. Wooden Pipe Support

Wooden support are a product constructed from wood to create stability and support loads. They are used to reduce vibrations and withstand loads in construction and industrial applications.

Our company's wooden pipe racks are all made of high-quality wood, sturdy, not easily deformed, never use reprocessed old wood, no preservatives and environmentally friendly.

Wooden Support
code : PUW - aDxbT-L

Item	Specification	Standard
Materials	Wooden	Standard
Density	800±100 kg/m3	ASTM D1622
Thermal conductivity	≤ 0.032 W/mK	ASTM C518
Working temperature	-50 °C -> 150 °C	ASTM 1621
Comporessive Strength	10.5Mpa	ASTM D1621
Environmental friendly material, free CFC	Good	ASTM D1056

Technical data product:

TABLE DIMENSION OF NANOFLEX WOODEN FOAM SUPPORT			
Inside Diameter (mm)		Thickness	Length
DN	Real size diameter	(mm)	(mm)
15A	22	25,32,40, 50	40, 50, 80, 100, 200
20A	28	25,32,40, 50	40, 50, 80, 100, 200
25A	34	25,32,40, 50	40, 50, 80, 100, 200
32A	43	25,32,40, 50	40, 50, 80, 100, 200
40A	49	25,32,40, 50	40, 50, 80, 100, 200
50A	60	25,32,40, 50	40, 50, 80, 100, 200
65A	76	25,32,40, 50	40, 50, 80, 100, 200
80A	89	25,32,40, 50	40, 50, 80, 100, 200
100A	114	40, 50	40, 50, 80, 100, 200
125A	140	40, 50	40, 50, 80, 100, 200
150A	168	50	40, 50, 80, 100, 200
200A	219	50	40, 50, 80, 100, 200
250A	273	50	40, 50, 80, 100, 200
300A	325	50	40, 50, 80, 100, 200
350A	355	50	40, 50, 80, 100, 200
400A	406	50	40, 50, 80, 100, 200
450A	458	50	40, 50, 80, 100, 200
500A	508	50	40, 50, 80, 100, 200
We can produce upon your request			

III.8. EVA Foam Pipe Support

EVA rubber pillow is a pipe support material made from polyvinyl alcohol (EVA) material, which has excellent physical and chemical properties, can effectively protect pipes from the impact of the external environment and Extends pipe life.

At the same time, the EVA rubber plastic pipe holder also has good shock absorption, vibration absorption and sound insulation effects, which can effectively reduce noiseand vibration during pipeline operation, while improving the durability. safety and stability of pipelines.

EVA Foam Support
Code : EVA - aDxbT-L

Technical data product:

No	Specification	Unit	Standard Test	Parametter
1	Color	Table color	ISO 105-A02:1993	Black
2	Surface			Smooth
3	Thickness	mm		25mm - 75mm
4	Density	kg/m3	ASTM D1622	200-400kg/m3
5	Hardness	HB	TCVN 1595 -1:2007	7~20HB
6	Pressure	Mpa	ASTM D1621	0.13Mpa - 0.5Mpa
7	Tensile Strength	Mpa	ASTM D1622	0.2Mpa - 0.3Mpa
8	Temperature service		GB/T8871	-30° C to 110° C

Nanoflex code number & product package :

TABLE DIMENSION OF NANOFLEX EVA FOAM SUPPORT			
Inside Diameter (mm)		Thickness	Length
DN	Real size diameter	(mm)	(mm)
15A	22	25,32,40, 50	40, 50, 80, 100, 200
20A	28	25,32,40, 50	40, 50, 80, 100, 200
25A	34	25,32,40, 50	40, 50, 80, 100, 200
32A	43	25,32,40, 50	40, 50, 80, 100, 200
40A	49	25,32,40, 50	40, 50, 80, 100, 200
50A	60	25,32,40, 50	40, 50, 80, 100, 200
65A	76	25,32,40, 50	40, 50, 80, 100, 200
80A	89	25,32,40, 50	40, 50, 80, 100, 200
100A	114	40, 50	40, 50, 80, 100, 200
125A	140	40, 50	40, 50, 80, 100, 200
150A	168	50	40, 50, 80, 100, 200
200A	219	50	40, 50, 80, 100, 200
250A	273	50	40, 50, 80, 100, 200
300A	325	50	40, 50, 80, 100, 200
350A	355	50	40, 50, 80, 100, 200
400A	406	50	40, 50, 80, 100, 200
450A	458	50	40, 50, 80, 100, 200
500A	508	50	40, 50, 80, 100, 200
We can produce upon your request			

I. Flexiable Duct - Non insulation

Code : FD -T1

Code : FD -T2

The product is used to conduct gas or air. Non-insulated flexible duct is a type of flexible duct made from many layers of aluminum attached to reinforced steel wire, so it is elastic and supple, and the outside is covered with a layer of white foil.Non-insulated flexible ducts have high elasticity, so they can be installed with round, rectangular or oval head systems in ventilation, gas transmission, and light materials applications.

II. Flexiable Duct insulation fiber glass

Code : FD -T3

It is a type of air duct manufactured from many layers of aluminum film attached to reinforced steel wire, so it is elastic and tough. In the middle is a layer of 25mm / 50mm thick insulating glass wool with a density of 24kg/m3 or 32kg/m3, the outermost layer is covered with a layer of reinforced glass fabric that is not destroyed under normal conditions.Insulated hoses are highly elastic, airtight and can be easily fitted to round, oval or rectangular pipe ends. Used to carry cold air.

III. Flexiable Duct polyester

Code : FD -T4

It is a type of air duct manufactured from 2 layers of aluminum film attached to reinforced steel wire, so it is elastic and tough. In the middle is a layer of non-toxic polyester cotton, the outermost is covered with a reinforced glass fabric that is not destroyed under normal conditions. Aluminum Film Thickness: 0.02~0.03mmConducts cold air, polyester cotton does not itch and is environmentally friendly.

IV. Flexiable Duct - Alu

Code : FD -T5

This is a product manufactured from the most advanced technology today, meeting the most stringent requirements of all projects and works.The continuous seams allow the hose to be stretched, stretched, compressed, bent and re-curved without air leakage.Often used in the conduction of machine gas (furnace, stove, industrial machinery). Withstand high temperature and high pressure.

V. Tapulin

Code : FD -T6

Fabric hose with steel core is an airtight, elastic, stretchable and bendable hose. Pipes are manufactured from fireproof PVC with additional layers of spring steel wire. This type of pipe has good elasticity, so it can be easily installed on round, oval or rectangular pipe ends without the need for accessories such as taper or angle elbow. such as a cone or a corner.Exhaust exhaust in basements that are water resistant and washable.

I. GLASS WOOL PIPE INSULATION

Pipe normal unface

Code : GW - TKB

Aluminum Foil

Code : GW - TCB

Kraft - paper

Code : GW - TKR

Technical Data

Name of Product	Thickness (mm)	Diameter (mm)	Density (kg)	Thermal Conductivity Coefficient (W/m.K)	Thermal Resistance (m^2.K)/W	Lamination	Reaction to Fire
Glasswool Pipe	30-100	22-324	64	0.034	0.55-2.85	Unfaced	GB/T 13350-2017
						Aluglass	
						Class 0 Alu	
						FSK	

II. GLASSWOOL ROLL/ BLANKET INSULATION

Glasswool non-foil

Code : GW - KB

Aluminum foil

Code : GW - CB

kraft-paper

Code : GW - KRB

PVC

Code : GW - PVC

Code : GW - KB

Code : GW - KBP

Code : GW - KBG

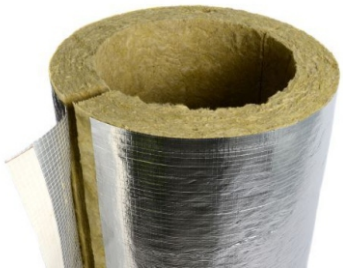
Code : GW - KBB

Other size can be produce upon request with difference specification.

I. Rocwool Pipe Insulation

Pipe normal unface

Code : RW - TKB



Aluminum Foil

Code : RW - TCB

Kraft - paper

Code : RW - TKR

Table Specification

Properties	Performance								Test Standard
Thermal conductivity at mean temperature	T_m (°C)	50	100	150	200	250	300	350	GB/T-12095-2008
	λ (W/mK)	0.036	0.046	0.054	0.064	0.077	0.092	0.112	
Maximum service temperature	350°C In case of aluminium facing the outer foil temperature should be limited to 80°C								GB/T-5480-2017
Reaction to fire	Non-combustible Low flame spread characteristics								GB/T 13350-2017
Nominal density (*)	≥ 100 kg/m³								
Corrosion resistance	Trace quantity of water leachable chloride ions: ≤ 10 ppm								GB/T 5480-2017
Water absorption	≤ 0.2 kg/m² ≤ 0.2 kg/m² (After 24 hrs. pre-heating at 250°C)								
Water vapour diffusion resistance	μ = 1								
Influence on coating systems	Free from substances (e.g. silicone oil) that could impair surface wetting								

II. Rockwool Blanket / Roll

Rockwool blanket normal unface

Code : RW - RKB

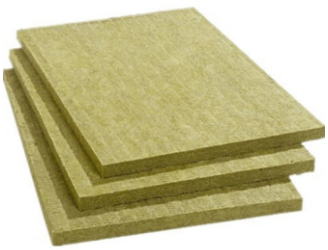
Rockwool blanket wire mesh

Code : RW - RCB

Rockwool blanket with Aluminum foil

Code : RW - RKR

III. Rockwool Board



Rockwool blanket normal unface

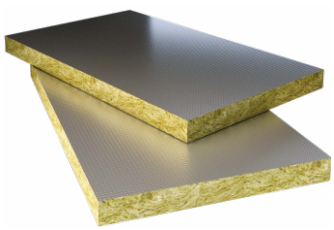
Code : RW - BKB1

Rockwool blanket with alu foil

Code : RW - BCB

Rockwool blanket with paper kraft

Code : RW - BKR



Rockwool blanket with PVC layer

Code : RW - BPVC

Other size can be produce upon request with difference specification.

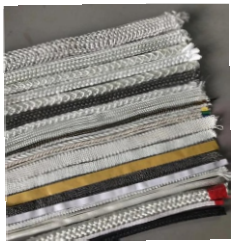
I. Ceramic

Ceramic fiber TUBE
Code : CF - TKB

Ceramic fiber SHEET
Code : CF - BS

Ceramic fiber ROLL
Code : CFB- RKB

Ceramic Fiber Rope
Code : CF - ROPE



Ceramic Fiber Power
Code : CF - PCC

Technical Data

Types		950°C	1050°C STD	1200°C	1350°C
Temperature range (°C)		950°C / 1742°F	1050°C / 1922°F	1200°C / 2192°F	1350°C / 2462°F
Density (kg/m3)		64-160kg/m3			
Heat resistance over time (%)		950°C x 24h ≤-3	1050°C x 24h ≤-3	1200°C x 24h ≤-3	91350°C x 24h ≤-3
Thermal conductivity W/m.K (128kg/m3)		0.15(600°C) 0.22(800°C)	0.12(600°C) 0.20(800°C)	0.12(600°C) 0.20(800°C)	0.16(600°C) 0.20(1000°C)
Traction (Thickness 25mm)		≥0.0	≥0.05	≥0.04	≥0.06
Chemical compositi on	Al_2O_3 (3%)	4.44	45-46	52-55	39-40
	Al_2O_3 + SiO_2 (2%)	≥96	≥98	≥99	-
	ZrO_2 (%)	-	-	5-7	15-17
	$Al_2O_{3+}SiO_{2+}ZrO_2$ (%)	-	-	-	≥99
	Fe_2O_3 (3%)	≤1.0	≤0.8	≤0.2	≤0.2
	Na_zO +K_zO (%)	≤0.4	≤0.3	≤0.2	≤0.2
	CaO + MgO	≤0.3	≤0.2	≤0.2	≤0.2
Size		Tube : 1met/ tube Roll : W0.6m*3.6m*50mmt ; W0.6m*7.2m*25mmt ; Blanket : W0.6m *1.2m * 6pcs * 50mmt			

Image Application

Products Decription /

Nanoflex adhesive is the only insulation adhesive recommended for use with the full range of Nanoflex insulation products. The Nanoflex adhesive is a specially designed adhesive which enables the bonding of insulation. This Nanoflex glue enables split lengths of insulation and sheeting to be bonded quickly and easily. It's also ideal for joining the seams of adjacent lengths of Nanoflex pipe insulation tubes. Sealing the area where the sections "butt" together ensures the whole system maintains the vapour barrier created when the pipes are insulated.

**** Features and Benefits:***

- Designed for the full range of products including sheets, tubes and coils. Fast drying contact adhesive ideals for hot water systems - stable up to 35 degrees. Adhesive can be used in the Nanoflex Glue master Pump - for quick and easy application.

Black glue / yellow glue

Nanoflex NG 02 (9kg/box)

Nanoflex NG 02(3kg/pcs)

Nanoflex spray form

Technical data product /

No	Content	Unit	Results
1	Appearance		Black
2	Solid Content	%	32%
3	Viscosity (25 degree)	CPS	80-180
4	Density	Kg/l	0.8-1.2kg/1 lit
5	Tack Time	Seconds	10-20 seconds
6	Drying times last 5-10 minutes	Minutes	5-10 minutes
7	Temperature of using glue	Degree	15-35 degrre

Image Application

SAMSUNG THAI NGUYEN


FOXCONN BAC GIANG


LOTTE VO CHI CONG

LGH3 HAIPHONG


HAN JARDIN


PAIHONG - BINH DUONG


HANA MICRON BAC GIANG


MAYFAIR HAI DUONG

CHADWICK - INTERNATIONAL SHOOL


SUNNY OPTECH - HAI PHONG


FUHAI FACTORY


LUXVISION NGHE AN

RUNERGY NGHE AN


LUXTECH NGHE AN

DEASANG HUNG YEN

AMKOR BAC NINH


GOERTEK BAC NINH

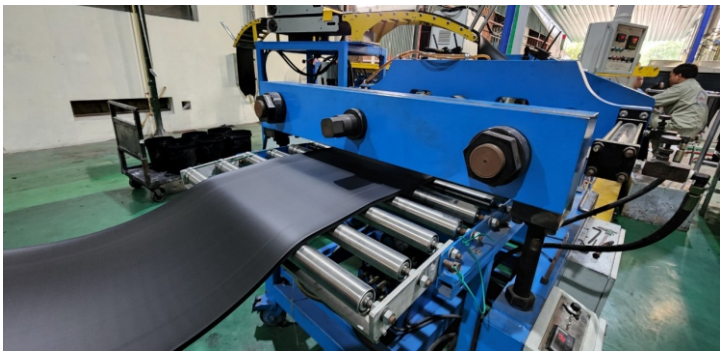

LUXSHARE NGHE AN


LUXCASE NGHE AN


AVC HA NAM


LUXSHARE BAC GIANG










G E N E R A L C A T A L O G U E

NanoFlex®

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