

TPFLEX[®]



TPTECH International Joint Stock Company

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Total Insulation Solution



CERTIFICATE

TPFLEX fully meets the following standards:

- ▶ FM Approved : FM Approvals Class: 4924
- ▶ COC Class 0 : Certificate of Conformity BS 476 part 6,7
- ▶ UL 94 Certificate : American standard for Safety of flammability
- ▶ KS Certificate : Korean Standard Mark (KS Mark)
- ▶ ISO 9001: 2015 : Quality management systems
- ▶ ISO 14001: 2015 : Environmental management systems
- ▶ GreenGuard Gold : Gold Standard for total VOC Emissions
- ▶ Singapore Green Building : Excellent (3 ticks)
- ▶ Environmental Product Declaration (EPD) : EPD type III (by UL)



EPD type III by UL



INTRODUCTION

TPTECH INTERNATIONAL JOINT STOCK COMPANY would like to send respectful greetings to Customers and Partners. TPTECH is the professional insulation manufacturer in Vietnam providing total solutions for insulation and sound absorption used in HVAC&R industry.

Located in Yen My II Industrial Park, Hung Yen Province with almost 33,000 square meters, TPTECH is integrated place of well-skilled leading experts and technicians, modest European technological machinery, professional production management process guaranteeing to produce products with international standards.

We are sincerely thankful and hope to cooperate with valued customers and partners.

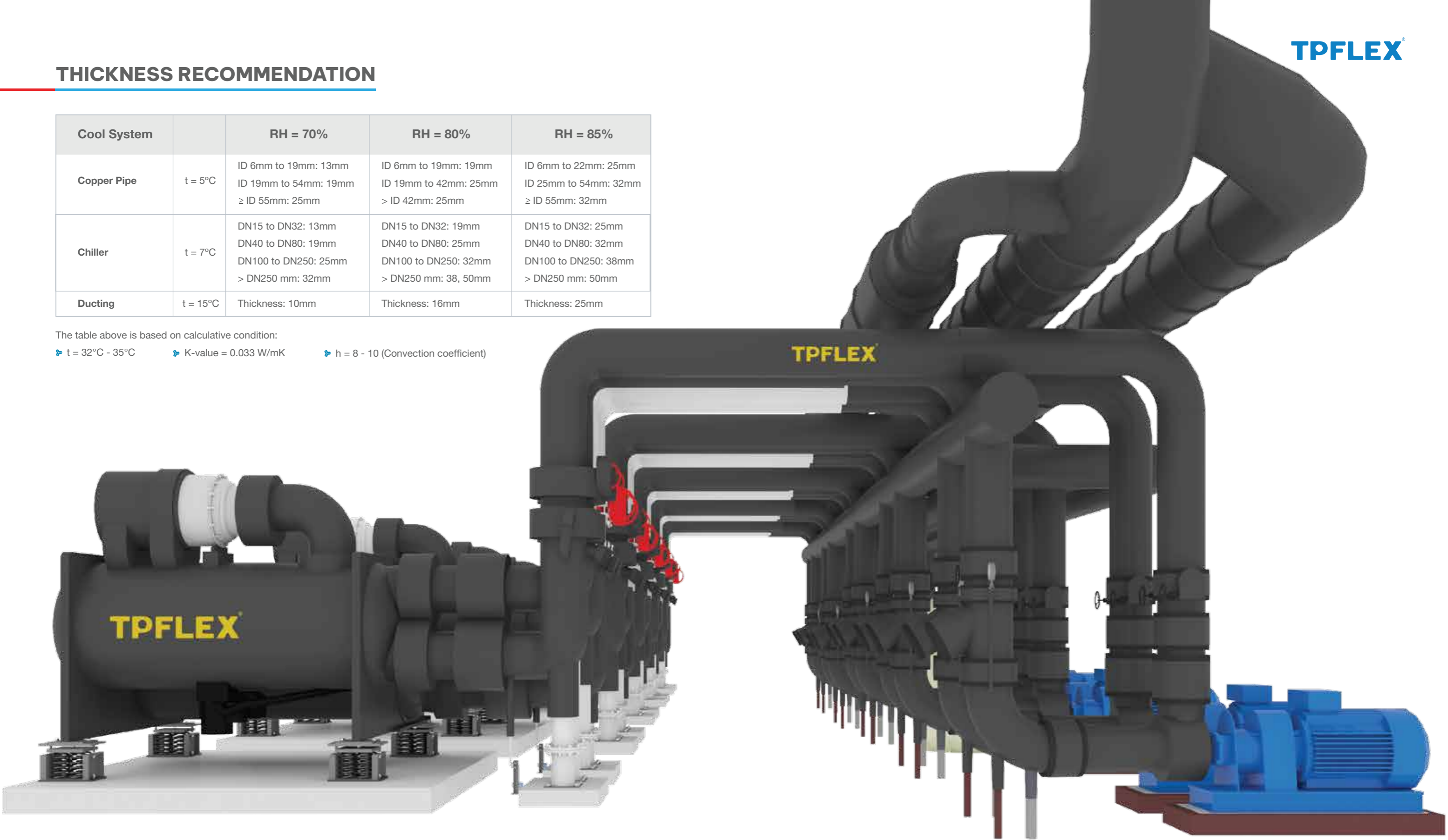


THICKNESS RECOMMENDATION

Cool System		RH = 70%	RH = 80%	RH = 85%
Copper Pipe	t = 5°C	ID 6mm to 19mm: 13mm ID 19mm to 54mm: 19mm ≥ ID 55mm: 25mm	ID 6mm to 19mm: 19mm ID 19mm to 42mm: 25mm > ID 42mm: 25mm	ID 6mm to 22mm: 25mm ID 25mm to 54mm: 32mm ≥ ID 55mm: 32mm
Chiller	t = 7°C	DN15 to DN32: 13mm DN40 to DN80: 19mm DN100 to DN250: 25mm > DN250 mm: 32mm	DN15 to DN32: 19mm DN40 to DN80: 25mm DN100 to DN250: 32mm > DN250 mm: 38, 50mm	DN15 to DN32: 25mm DN40 to DN80: 32mm DN100 to DN250: 38mm > DN250 mm: 50mm
Ducting	t = 15°C	Thickness: 10mm	Thickness: 16mm	Thickness: 25mm

The table above is based on calculative condition:

- ▶ t = 32°C - 35°C
- ▶ K-value = 0.033 W/mK
- ▶ h = 8 - 10 (Convection coefficient)



THICKNESS CALCULATION PROGRAM

Please use the program to calculate thickness by the following ways:

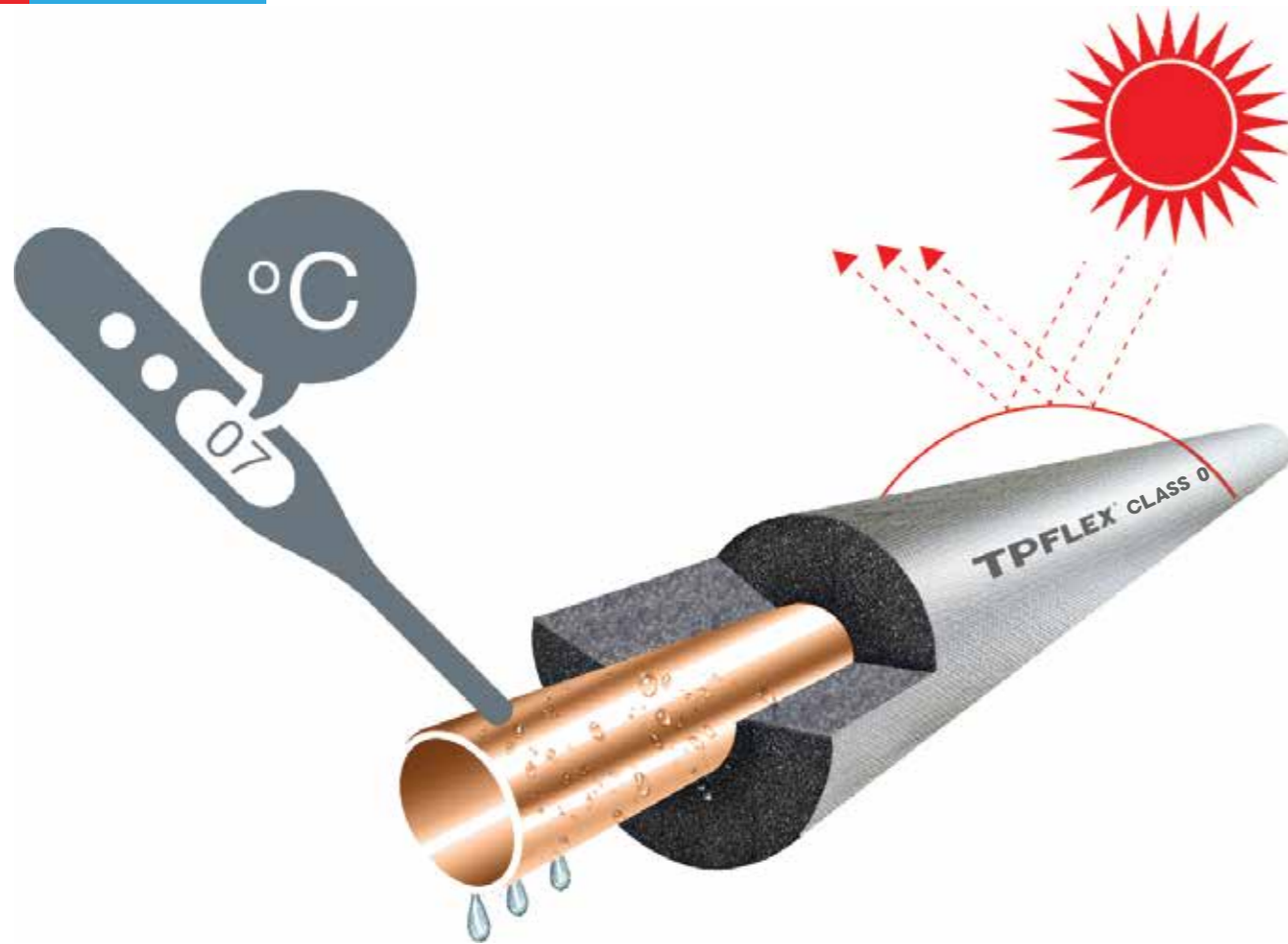
1. Scan QR code
2. Access website: <https://tptechgroup.com/en/technical-support/>



TPFLEX SIGNIFICANT APPLICATIONS

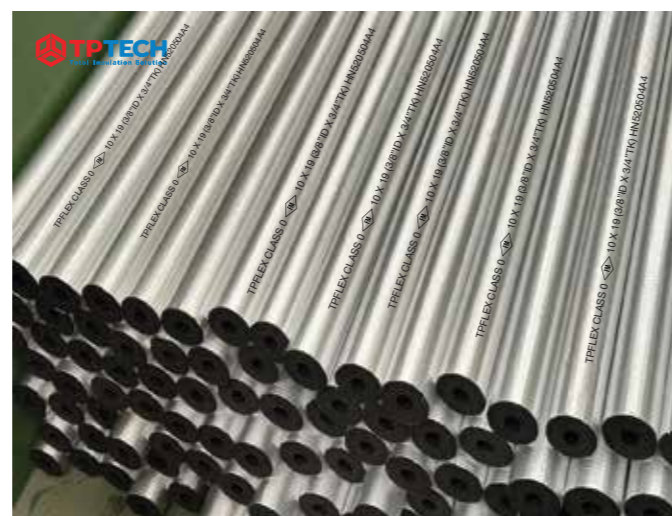
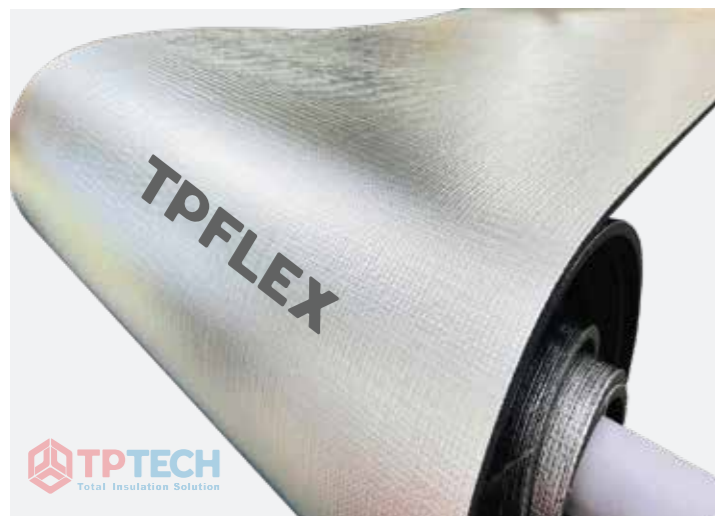
- ① Copper Piping
- ④ Water Piping
- ⑦ Ceiling Insulation
- ② Ducting
- ⑤ Hot water
- ⑧ Other Insulation applications...
- ③ Chiller System
- ⑥ Sound reduction

TPFLEX CLASS 0



SPECIFICATIONS - With Aluminum (Tube & Sheet)

Key properties	Value / Assessment	Test method / Standard	
General			
Material	Elastomeric Foam, NBR based		
Color	Black (basic) & others	For other color, please contact with technical department	
Cell structure	Completely closed cell	-	
Density (kg/m³)	40 to 80	ASTM D1667	
Service	-50°C to +105°C		
Others	For thermal insulation sheet and tube can be manufactured at the factory with an 8-micron thick aluminum foil vapor barrier pre-laminated onto the exterior surface.		
Thermal conductivity			
K - value (W/m.K)	0°C	20°C - 24°C	ASTM C518
	0.031	0.033	
Water vapour Permeability			
Water Vapour Permeance	≤ 1 x 10 ⁻¹⁰ g/(m².s.Pa)	ASTM E96	
Water Vapour Resistance	μ ≥ 160,000	ASTM E96	
Water Absorption	≤ 0.1% (by volume)	ASTM C209	
Fire behavior			
Fire performance	FM Approved	FM Approved Class: 4924	
	Class 0	BS 476 part 6 & 7	
	Class C - s1, d0	EN 13501	
	Class V-0, 5-VA (Self - extinguishing, no dripping)	UL Certificate	
	Flame spread index (FSI) < 25 Smoke develop index (SDI) < 50	ASTM E84	
Ignitability index: 0 Spread of flame index: 0 Heat evolved index: 0 Smoke develop index: 2	AS1530.3		
Health			
	Low TVOCs	ISO 16000	
	RoHS II	IEC 62321	
	Anti - Microbial	ASTM E2180	
	Fungal resistance	ASTM G21	
	Free of Dust, Fibre and Formaldehyde		
Environment			
Environmental Product Declaration (EPD)	EPD type III: Declaration number 4791880640.101.1	UL Environment	
Singapore Green Building	Excellent (✓✓✓)		
Greenguard	Gold		
UV resistance		For UV protection, covering system is required	
Ecological	Without CFCs, HCFCs		
Ozone Resistance	Good	ASTM D1171	
Other technical data			
Sound reduction	NRC = 0.4 (25mm)	ASTM C423-17	
Heat stability (%shrinkage) at 104°C in 7 days	≤ 7%	ASTM C534	



PACKING

TPFLEX Class 0 Sheet - With adhesive and aluminum

Thickness (mm)	Length (m)	Area / Roll (m ²)		
		1.11m Width	1.22m Width	1.40m Width
6	15	SC06111DL	SC06122DL	SC06140DL
10	10	SC10111DL	SC10122DL	SC10140DL
13	8	SC13111DL	SC13122DL	SC13140DL
16	7	SC16111DL	SC16122DL	SC16140DL
19	6	SC19111DL	SC19122DL	SC19140DL
25	6	SC25111DL	SC25122DL	SC25140DL
32	6	SC32111DL	SC32122DL	SC32140DL
38	5	SC38111DL	SC38122DL	SC38140DL
40	5	SC40111DL	SC40122DL	SC40140DL
50	5	SC50111DL	SC50122DL	SC50140DL



Providing all requirements in a variety of diameters, thicknesses and lengths

- ▶ Sheet roll with adhesive side: add "AD" at the end of code
- ▶ Sheet roll with aluminum laminated: add "AL" at the end of code
- ▶ Sheet roll with aluminum and adhesive laminated: add "DL" at the end of code



TPFLEX Class 0 Tube - With adhesive and aluminum: 2M length/pcs

Tube with Aluminum laminated: add "AL" at the end of code

I.D SIZE		Code Number (Quantity: Pieces / Carton)							
MM	INCH	10mm wall	13mm wall	19mm wall	25mm wall	32mm wall	38mm wall	40mm wall	50mm wall
6	1/4"	TC10006AL	TC13006AL	TC19006AL	TC25006AL				
10	3/8"	TC10010AL	TC13010AL	TC19010AL	TC25010AL				
13	1/2"	TC10013AL	TC13013AL	TC19013AL	TC25013AL				
16	5/8"	TC10016AL	TC13016AL	TC19016AL	TC25016AL				
19	3/4"	TC10019AL	TC13019AL	TC19019AL	TC25019AL	TC32019AL			
22	7/8"	TC10022AL	TC13022AL	TC19022AL	TC25022AL	TC32022AL	TC38022AL	TC40022AL	TC50022AL
25	1"	TC10025AL	TC13025AL	TC19025AL	TC25025AL	TC32025AL	TC38025AL	TC40025AL	TC50025AL
28	1 - 1/8"	TC10028AL	TC13028AL	TC19028AL	TC25028AL	TC32028AL	TC38028AL	TC40028AL	TC50028AL
32	1 - 1/4"	TC10032AL	TC13032AL	TC19032AL	TC25032AL	TC32032AL	TC38032AL	TC40032AL	TC50032AL
35	1 - 3/8"	TC10035AL	TC13035AL	TC19035AL	TC25035AL	TC32035AL	TC38035AL	TC40035AL	TC50035AL
38	1 - 1/2"	TC10038AL	TC13038AL	TC19038AL	TC25038AL	TC32038AL	TC38038AL	TC40038AL	TC50038AL
42	1 - 5/8"	TC10042AL	TC13042AL	TC19042AL	TC25042AL	TC32042AL	TC38042AL	TC40042AL	TC50042AL
48	1 - 7/8"	TC10048AL	TC13048AL	TC19048AL	TC25048AL	TC32048AL	TC38048AL	TC40048AL	TC50048AL
51	2"	TC10051AL	TC13051AL	TC19051AL	TC25051AL	TC32051AL	TC38051AL	TC40051AL	TC50051AL
54	2 - 1/8"	TC10054AL	TC13054AL	TC19054AL	TC25054AL	TC32054AL	TC38054AL	TC40054AL	TC50054AL
60	2 - 3/8"	TC10060AL	TC13060AL	TC19060AL	TC25060AL	TC32060AL	TC38060AL	TC40060AL	TC50060AL
64	2 - 1/2"		TC13064AL	TC19064AL	TC25064AL	TC32064AL	TC38064AL	TC40064AL	TC50064AL
67	2 - 5/8"		TC13067AL	TC19067AL	TC25067AL	TC32067AL	TC38067AL	TC40067AL	TC50067AL
76	3"		TC13076AL	TC19076AL	TC25076AL	TC32076AL	TC38076AL	TC40076AL	TC50076AL
89	3 - 1/2"		TC13089AL	TC19089AL	TC25089AL	TC32089AL	TC38089AL	TC40089AL	TC50089AL
108	4 - 1/4"		TC13108AL	TC19108AL	TC25108AL	TC32108AL	TC38108AL	TC40108AL	TC50108AL
114	4 - 1/2"		TC13114AL	TC19114AL	TC25114AL	TC32114AL	TC38114AL	TC40114AL	TC50114AL
140	5 - 1/2"			TC19140AL	TC25140AL	TC32140AL	TC38140AL	TC40140AL	TC50140AL
165	6 - 1/2"				TC25165AL	TC32165AL	TC38165AL	TC40165AL	TC50165AL
168	6 - 5/8"				TC25168AL	TC32168AL	TC38168AL	TC40168AL	TC50168AL

Providing all requirements in a variety of diameters, thicknesses and lengths

TPSOUND IE: Egg-crate acoustic insulation is a sound-absorbing material made from NBR-based rubber with a semi-open cell structure, specifically designed for sound absorption and noise reduction applications. It is commonly used in Air distribution systems such as FCU and AHU air ducts.

SPECIFICATIONS

Key Properties	Specifications
Applications	Ventilation duct Waste water pipes
Fire Performance	UL 94 Class V-0 BS 476 part 6,7 Class 0
Material	Elastomeric Foam, NBR
Color	Black colour, built-in adhesive
Cell structure	Semi-open cell
Density	40 - 80 kg/m ³
K-Value	0.035 W/m.K at 20oC
The Noise Reduction Coefficient (NRC)	min 0.4 (25mm) (ISO 354)
Surface Temperature	-50°C -> 105°C
Health	Dust & fibre free Low TVOCs REACH RoHS II Antimicrobial Fungal resistance

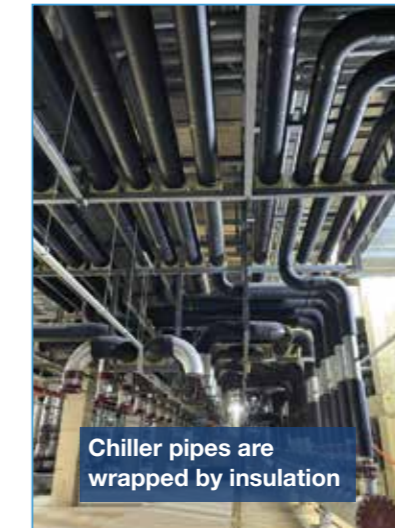
PACKING

Thickness (mm)	Length (m)	Area / Roll (m ²)
25	5	1.22m Width IE25122 (6.1)



- Sheet roll with adhesive side: add "AD" at the end of code
- Sheet roll with aluminum laminated: add "AL" at the end of code

INSTALLATION GUIDELINES



NOISE REDUCTION

The Noise Reduction Coefficient (NRC) is a value that represents the amount of sound that is absorbed or dissipated when sound waves strike a surface.

The NRC ranges: 0 < NRC < 1

NRC = 0: The material has no sound absorption capability.

NRC = 1: The material has excellent sound absorption (acoustic dampening) capability.

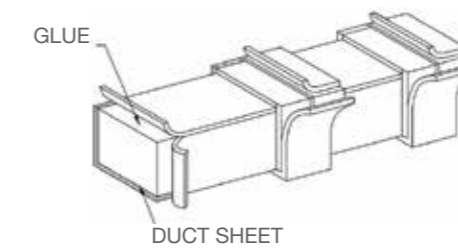
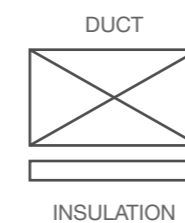
	NRC	Initial noise	Reduction	Finished noise
25mm thickness	0.4	56dB	23dB	33dB

Example TPFLEX NRC = 0.4 (thickness 25mm)



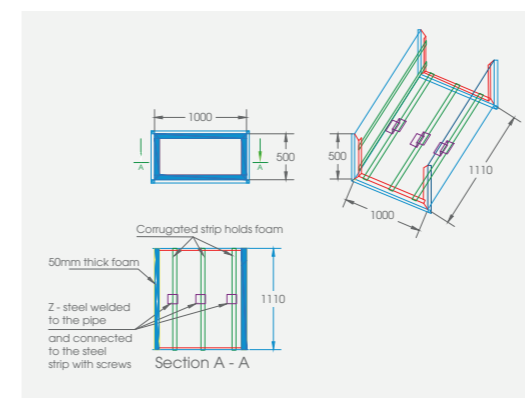
Ducting Installation Guideline

Cut insulation for ducting into 4 pieces



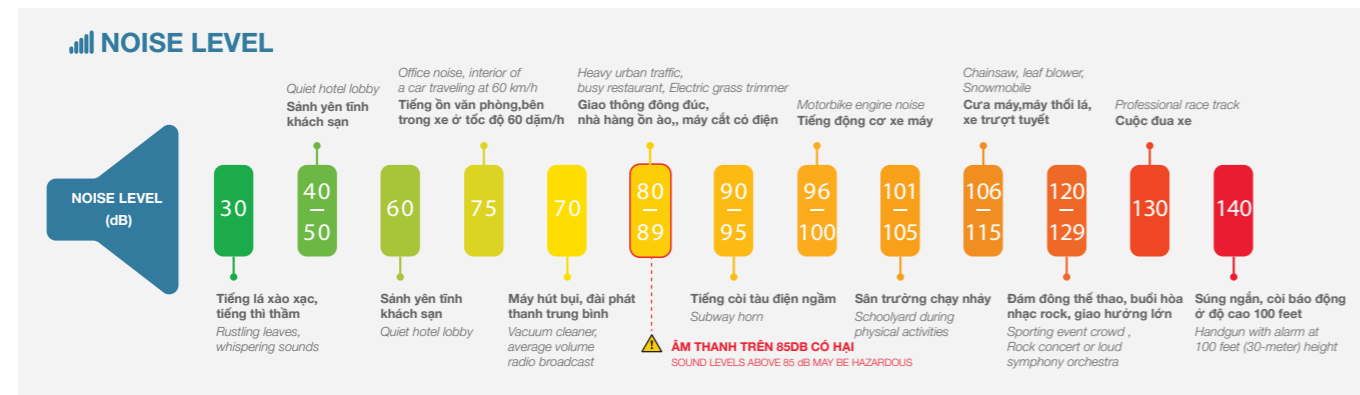
DUCTING installation guideline

TPSOUND IE Guideline



TPSOUND IE insulation has a high density, from 50-70 kg/m³. When installing, it is compulsory to use an iron bar besides adhesive TPGLUE to avoid that insulation will peel off the ducting.

Solution: Using iron bars and screwing as the below drawing:





TPFLEX CLASS 0



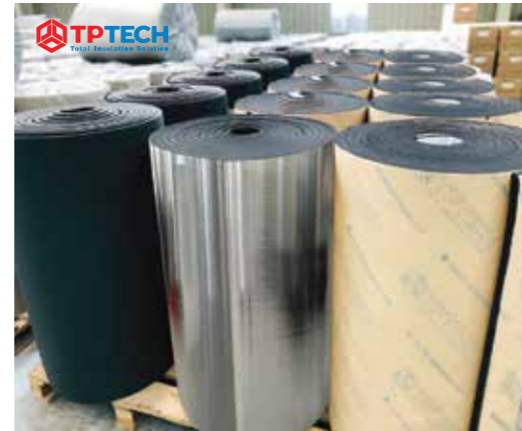
SPECIFICATIONS - Without Aluminum (Tube & Sheet)

Key properties	Value / Assessment	Test method / Standard
General		
Material	Elastomeric Foam, NBR based	
Color	Black (basic) & others	For other color, please contact with technical department
Cell structure	Completely closed cell	-
Density (kg/m³)	40 to 80	ASTM D1667
Service	-50°C to +105°C	
Thermal conductivity		
K - value (W/m.K)	0°C	ASTM C518
	20°C - 24°C	
	0.031	0.033
		0.035
Water vapour Permeability		
Water Vapour Permeance	≤ 8.7 x 10 ⁻¹² g/(m.s.Pa)	EN 12086-13
Water Vapour Resistance	μ ≥ 22,800	EN 12086-13
Water Absorption	≤ 0.1% (by volume)	ASTM C209
Fire behavior		
Fire performance	FM Approved	FM Approved Class: 4924
	Class 0	BS 476 part 6 & 7
	Class C - s1, d0	EN 13501
	Class V-0, 5-VA (Self - extinguishing, no dripping)	UL Certificate
	Flame spread index (FSI) < 25 Smoke develop index (SDI) < 50	ASTM E84
	Ignitability index: 0 Spread of flame index: 0 Heat evolved index: 0 Smoke develop index: 2	AS1530.3
Health		
	Low TVOCs	ISO 16000
	REACH	
	RoHS II	IEC 62321
	Anti - Microbial	ASTM E2180
	Fungal resistance	ASTM G21
	Free of Dust, Fibre and Formaldehyde	
Environment		
Environmental Product Declaration (EPD)	EPD type III: Declaration number 4791880640.101.1	UL Environment
Singapore Green Building	Excellent (✓✓✓)	
Greenguard	Gold	
UV resistance		For UV protection, covering system is required
Ecological	Without CFCs, HCFCs	
Ozone Resistance	Good	ASTM D1171
Other technical data		
Sound reduction	NRC = 0.4 (25mm)	ASTM C423-17
Flexibility	Excellent	
Heat stability (%shrinkage) at 104°C in 7 days	≤ 7%	ASTM C534

PACKING

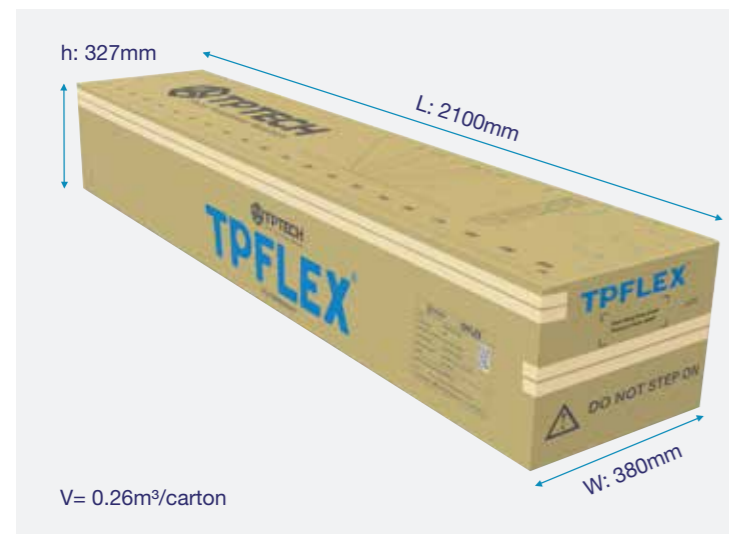
TPFLEX Class 0 Sheet

Thickness (mm)	Length (m)	Area / Roll (m ²)		
		1.11m Width	1.22m Width	1.40m Width
6	15	SC06111 (16.65)	SC06122 (18.3)	SC06140 (21)
10	10	SC10111 (11.1)	SC10122 (12.2)	SC10140 (14)
13	8	SC13111 (8.88)	SC13122 (9.76)	SC13140 (11.2)
16	7	SC16111 (7.77)	SC16122 (8.54)	SC16140 (9.8)
19	6	SC19111 (6.66)	SC19122 (7.32)	SC19140 (8.4)
25	6	SC25111 (6.66)	SC25122 (7.32)	SC25140 (8.4)
32	6	SC32111 (6.66)	SC32122 (7.32)	SC32140 (8.4)
38	5	SC38111 (5.55)	SC38122 (6.1)	SC38140 (7)
40	5	SC40111 (5.55)	SC40122 (6.1)	SC40140 (7)
50	5	SC50111 (5.55)	SC50122 (6.1)	SC50140 (7)



Providing all requirements in a variety of diameters, thicknesses and lengths

- Sheet roll with adhesive side: add "AD" at the end of code
- Sheet roll with aluminum laminated: add "AL" at the end of code
- Sheet roll with aluminum and adhesive laminated: add "DL" at the end of code



- 1 truck 3.5 tons : 65 cartons
- 1 truck 15 tons : 195 cartons
- 1 container 40ft : 273 cartons
- 1 container 20ft : 116 cartons



TPFLEX Class 0 Tube: 2M length/pcs

I.D SIZE		Code Number (Quantity: Pieces / Carton)							
MM	INCH	10mm wall	13mm wall	19mm wall	25mm wall	32mm wall	38mm wall	40mm wall	50mm wall
6	1/4"	TC10006 (169)	TC13006 (110)	TC19006 (51)	TC25006 (30)				
10	3/8"	TC10010 (132)	TC13010 (90)	TC19010 (49)	TC25010 (30)				
13	1/2"	TC10013 (100)	TC13013 (72)	TC19013 (39)	TC25013 (25)				
16	5/8"	TC10016 (90)	TC13016 (64)	TC19016 (37)	TC25016 (23)				
19	3/4"	TC10019 (81)	TC13019 (60)	TC19019 (32)	TC25019 (23)	TC32019 (16)			
22	7/8"	TC10022 (64)	TC13022 (48)	TC19022 (30)	TC25022 (18)	TC32022 (12)	TC38022 (9)	TC40022 (9)	TC50022 (6)
25	1"	TC10025 (56)	TC13025 (42)	TC19025 (25)	TC25025 (18)	TC32025 (12)	TC38025 (9)	TC40025 (9)	TC50025 (6)
28	1 - 1/8"	TC10028 (50)	TC13028 (39)	TC19028 (22)	TC25028 (16)	TC32028 (12)	TC38028 (8)	TC40028 (8)	TC50028 (5)
32	1 - 1/4"	TC10032 (42)	TC13032 (33)	TC19032 (20)	TC25032 (16)	TC32032 (10)	TC38032 (8)	TC40032 (8)	TC50032 (5)
35	1 - 3/8"	TC10035 (36)	TC13035 (30)	TC19035 (18)	TC25035 (15)	TC32035 (10)	TC38035 (8)	TC40035 (8)	TC50035 (5)
38	1 - 1/2"	TC10038 (36)	TC13038 (28)	TC19038 (18)	TC25038 (12)	TC32038 (9)	TC38038 (8)	TC40038 (8)	TC50038 (4)
42	1 - 5/8"	TC10042 (35)	TC13042 (26)	TC19042 (18)	TC25042 (12)	TC32042 (9)	TC38042 (6)	TC40042 (6)	TC50042 (4)
48	1 - 7/8"	TC10048 (30)	TC13048 (24)	TC19048 (15)	TC25048 (12)	TC32048 (8)	TC38048 (6)	TC40048 (6)	TC50048 (4)
51	2"	TC10051 (30)	TC13051 (22)	TC19051 (15)	TC25051 (11)	TC32051 (8)	TC38051 (6)	TC40051 (6)	TC50051 (4)
54	2 - 1/8"	TC10054 (30)	TC13054 (22)	TC19054 (14)	TC25054 (10)	TC32054 (7)	TC38054 (6)	TC40054 (6)	TC50054 (4)
60	2 - 3/8"	TC10060 (27)	TC13060 (19)	TC19060 (12)	TC25060 (9)	TC32060 (6)	TC38060 (6)	TC40060 (6)	TC50060 (4)
64	2 - 1/2"		TC13064 (18)	TC19064 (12)	TC25064 (9)	TC32064 (6)	TC38064 (5)	TC40064 (5)	TC50064 (4)
67	2 - 5/8"		TC13067 (18)	TC19067 (12)	TC25067 (8)	TC32067 (6)	TC38067 (5)	TC40067 (5)	TC50067 (4)
76	3"		TC13076 (16)	TC19076 (12)	TC25076 (8)	TC32076 (6)	TC38076 (4)	TC40076 (4)	TC50076 (3)
89	3 - 1/2"		TC13089 (14)	TC19089 (10)	TC25089 (6)	TC32089 (5)	TC38089 (4)	TC40089 (4)	TC50089 (2)
108	4 - 1/4"		TC13108 (9)	TC19108 (8)	TC25108 (6)	TC32108 (4)	TC38108 (3)	TC40108 (3)	TC50108 (2)
114	4 - 1/2"		TC13114 (9)	TC19114 (6)	TC25114 (5)	TC32114 (4)	TC38114 (3)	TC40114 (3)	TC50114 (2)
140	5 - 1/2"			TC19140 (6)	TC25140 (4)	TC32140 (4)	TC38140 (3)	TC40140 (3)	TC50140 (2)
165	6 - 1/2"				TC25165 (3)	TC32165 (3)	TC38165 (2)	TC40165 (2)	TC50165 (2)
168	6 - 5/8"				TC25168 (3)	TC32168 (2)	TC38168 (2)	TC40168 (2)	TC50168 (2)

Providing all requirements in a variety of diameters, thicknesses and lengths

TPFLEX STD



SPECIFICATIONS (Tube & Sheet)

Key properties	Value / Assessment	Test method / Standard
General		
Material	Elastomeric Foam, NBR based	
Color	Black (basic) & others	For other color, please contact with technical department
Cell structure	Completely closed cell	-
Density (kg/m³)	40 to 80	ASTM D1667
Service	-50°C to +105°C	For other temperature, please contact with technical department
Thermal conductivity		
K - value (W/m.K)	0°C	ASTM C518
	20°C - 24°C	
	40°C	
	0.032	
	0.033	
	0.035	
Water vapour Permeability		
Water Vapour Permeability	≤ 2.5 x 10 ⁻¹¹ g/(m.s.Pa)	EN 12086-13
Water Vapour Resistance	μ ≥ 10,000 (without aluminum)	EN 12086-13
Water Absorption	≤ 0.1% (by volume)	ASTM C209
Fire behavior		
Fire performance	Class V-0, 5-VA (Self - extinguishing, no dripping)	UL Certificate
	Class 1	BS 476 part 7
	BC1	QCVN06 - 2020
Health		
	Low TVOCs	ISO 16000
	REACH	
	RoHS II	IEC 62321
	Anti - Microbial	ASTM E 2180
	Fungal resistance	ASTM G21
	Free of Dust, Fibre and Formaldehyde	
Environment		
Singapore Green Building	Excellent (✓✓✓)	
Greenguard	Gold	
UV resistance	For UV protection, covering system is required	
Ecological	Without CFCs, HCFCs	
Ozone Resistance	Good	ASTM D1171
Other technical data		
Sound reduction	NRC = 0.4 (25mm)	ASTM C423-17
Flexibility	Excellent	
Heat stability (%shrinkage) at 104°C in 7 days	≤ 7%	ASTM C534

PACKING

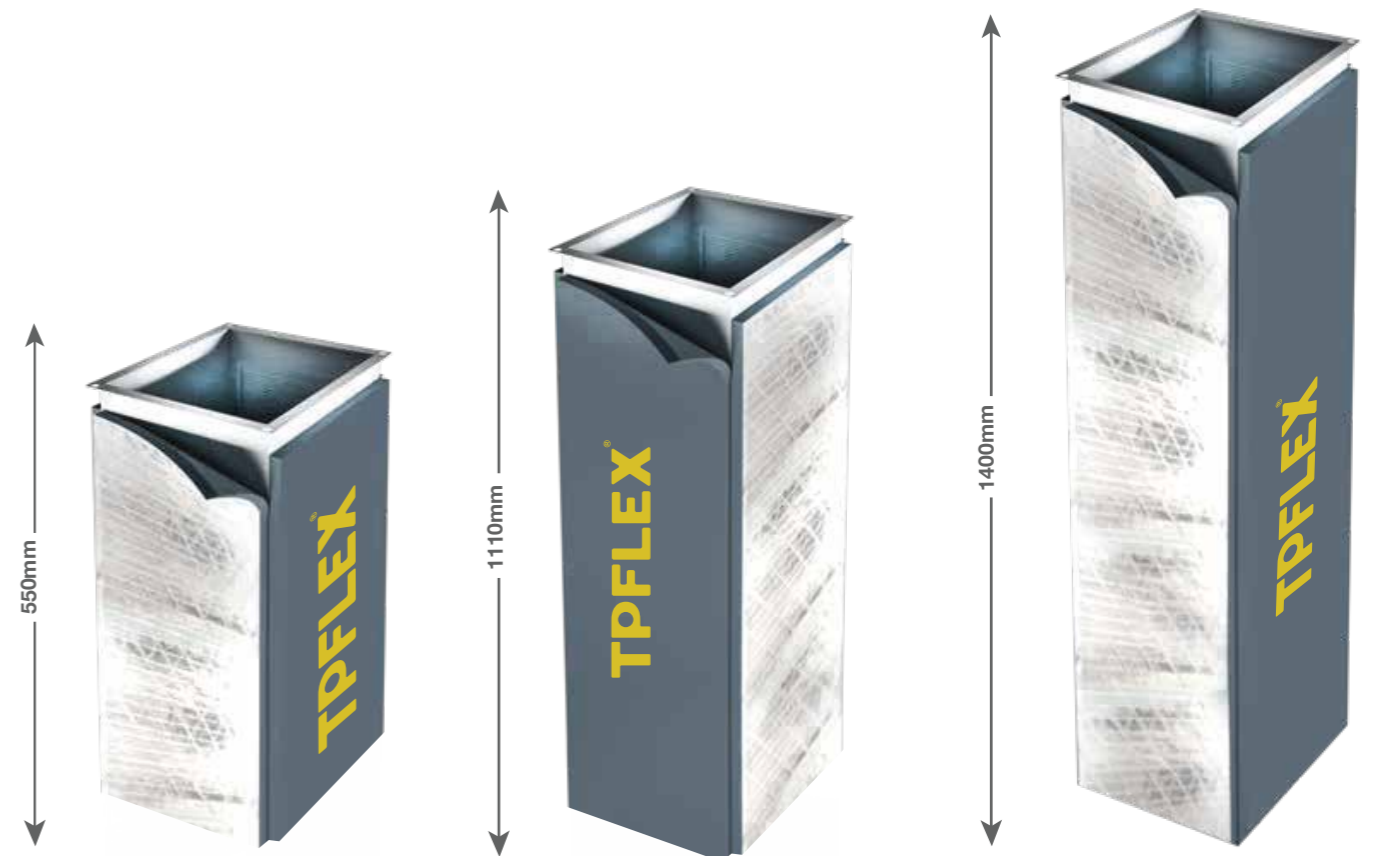
TPFLEX STD Sheet

Thickness (mm)	Length (m)	Area / Roll (m²)		
		1.11m Width	1.22m Width	1.40m Width
6	15	SA06111 (16.65)	SA06122 (18.3)	SA06140 (21)
10	10	SA10111 (11.1)	SA10122 (12.2)	SA10140 (14)
13	8	SA13111 (8.88)	SA13122 (9.76)	SA13140 (11.2)
16	7	SA16111 (7.77)	SA16122 (8.54)	SA16140 (9.8)
19	6	SA19111 (6.66)	SA19122 (7.32)	SA19140 (8.4)
25	6	SA25111 (6.66)	SA25122 (7.32)	SA25140 (8.4)
32	6	SA32111 (6.66)	SA32122 (7.32)	SA32140 (8.4)
38	5	SA38111 (5.55)	SA38122 (6.1)	SA38140 (7)
50	5	SA50111 (5.55)	SA50122 (6.1)	SA50140 (7)



Providing all requirements in a variety of diameters, thicknesses and lengths

- Sheet roll with adhesive side: add "AD" at the end of code
- Sheet roll with aluminum laminated: add "AL" at the end of code
- Sheet roll with aluminum and adhesive laminated: add "DL" at the end of code



TPFLEX STD Tube: 2M length/pcs

I.D SIZE		Code Number (Quantity: Pieces / Carton)						
MM	INCH	10mm wall	13mm wall	19mm wall	25mm wall	32mm wall	38mm wall	50mm wall
6	1/4"	TA10006 (169)	TA13006 (110)	TA19006 (51)	TA25006 (30)			
10	3/8"	TA10010 (132)	TA13010 (90)	TA19010 (49)	TA25010 (30)			
13	1/2"	TA10013 (100)	TA13013 (72)	TA19013 (39)	TA25013 (25)			
16	5/8"	TA10016 (90)	TA13016 (64)	TA19016 (37)	TA25016 (23)			
19	3/4"	TA10019 (81)	TA13019 (60)	TA19019 (32)	TA25019 (23)	TA32019 (16)		
22	7/8"	TA10022 (64)	TA13022 (48)	TA19022 (30)	TA25022 (18)	TA32022 (12)	TA38022 (9)	TA50022 (6)
25	1"	TA10025 (56)	TA13025 (42)	TA19025 (25)	TA25025 (18)	TA32025 (12)	TA38025 (9)	TA50025 (6)
28	1 - 1/8"	TA10028 (50)	TA13028 (39)	TA19028 (22)	TA25028 (16)	TA32028 (12)	TA38028 (8)	TA50028 (5)
32	1 - 1/4"	TA10032 (42)	TA13032 (33)	TA19032 (20)	TA25032 (16)	TA32032 (10)	TA38032 (8)	TA50032 (5)
35	1 - 3/8"	TA10035 (36)	TA13035 (30)	TA19035 (18)	TA25035 (15)	TA32035 (10)	TA38035 (8)	TA50035 (5)
38	1 - 1/2"	TA10038 (36)	TA13038 (28)	TA19038 (18)	TA25038 (12)	TA32038 (9)	TA38038 (8)	TA50038 (4)
42	1 - 5/8"	TA10042 (35)	TA13042 (26)	TA19042 (18)	TA25042 (12)	TA32042 (9)	TA38042 (6)	TA50042 (4)
48	1 - 7/8"	TA10048 (30)	TA13048 (24)	TA19048 (15)	TA25048 (12)	TA32048 (8)	TA38048 (6)	TA50048 (4)
51	2"	TA10051 (30)	TA13051 (22)	TA19051 (15)	TA25051 (11)	TA32051 (8)	TA38051 (6)	TA50051 (4)
54	2 - 1/8"	TA10054 (30)	TA13054 (22)	TA19054 (14)	TA25054 (10)	TA32054 (7)	TA38054 (6)	TA50054 (4)
60	2 - 3/8"	TA10060 (27)	TA13060 (19)	TA19060 (12)	TA25060 (9)	TA32060 (6)	TA38060 (6)	TA50060 (4)
64	2 - 1/2"		TA13064 (18)	TA19064 (12)	TA25064 (9)	TA32064 (6)	TA38064 (5)	TA50064 (4)
67	2 - 5/8"		TA13067 (18)	TA19067 (12)	TA25067 (8)	TA32067 (6)	TA38067 (5)	TA50067 (4)
76	3"		TA13076 (16)	TA19076 (12)	TA25076 (8)	TA32076 (6)	TA38076 (4)	TA50076 (3)
89	3 - 1/2"		TA13089 (14)	TA19089 (10)	TA25089 (6)	TA32089 (5)	TA38089 (4)	TA50089 (2)
108	4 - 1/4"		TA13108 (9)	TA19108 (8)	TA25108 (6)	TA32108 (4)	TA38108 (3)	TA50108 (2)
114	4 - 1/2"		TA13114 (9)	TA19114 (6)	TA25114 (5)	TA32114 (4)	TA38114 (3)	TA50114 (2)
140	5 - 1/2"			TA19140 (6)	TA25140 (4)	TA32140 (4)	TA38140 (3)	TA50140 (2)
165	6 - 1/2"				TA25165 (3)	TA32165 (3)	TA38165 (2)	TA50165 (2)
168	6 - 5/8"				TA25168 (3)	TA32168 (2)	TA38168 (2)	TA50168 (2)

Providing all requirements in a variety of diameters, thicknesses and lengths

1. POLYESTER FLEXIBLE DUCT - TDI

TPDUCT flexible air ducts are manufactured from polyester material and are commonly utilized in heating, ventilation, and air conditioning (HVAC) systems for applications such as air distribution, fresh air supply, smoke extraction, and dust collection in both residential and industrial environments.

Specifications

Key Properties	Specifications
Material	Aluminum Foil / Steel Wire / Polyester Insulation
Aluminum foil thickness	23 Micron
Density	12kg/m³
Length	8m
Thickness	25mm
Used Temperature	-30°C to +140°C
Used Pressure	39psi (ISO 13938-2:2019)
Used Wind Speed	30m/s
Size	Ø 100mm to Ø 450mm x 8m

Packing

Code Number	ID size (mm)	Length (m)
TDI100	100	8
TDI125	125	8
TDI150	150	8
TDI200	200	8
TDI250	250	8
TDI300	300	8
TDI350	350	8
TDI400	400	8

Providing all requirements in a variety of diameters, thicknesses and lengths

Layer 1:
A 23-micron PET aluminum film with a galvanized stainless steel core enhances rigidity and prevents distortion.

Layer 2: Polyester insulation
Advantages:
 ▶ Polyester fiber is dust-free, waterproof, non-hygroscopic, and resistant to microorganisms like bacteria and mold.
 ▶ The product is safe for users' health.
 ▶ Polyester fiber is age-resistant, and TPDUCT insulation is highly durable.

Layer 3:
A 12-micron PET aluminum film exterior enhances aesthetics, simplifies cleaning, and extends duct lifespan.

2. FLEXIBLE DUCT - TDN

Packing

Code Number	ID size (mm)	Length (m)
TDN100	100	8
TDN125	125	8
TDN150	150	8
TDN200	200	8
TDN250	250	8
TDN300	300	8
TDN350	350	8
TDN400	400	8

Specifications

- ▶ Material : Aluminum foil / Steel Wire
- ▶ Thickness : 23 Micron
- ▶ Length : 8m
- ▶ Used Temperature : -30°C to +140°C
- ▶ Used Pressure : 39psi (ISO 13938-2:2019)
- ▶ Used Wind Speed : 30 m/s



Providing all requirements in a variety of diameters, thicknesses and lengths

TPADT

TPADT adopts black color PVC film as backing, combined with a high performance solvent acrylic adhesive, it is mainly used for rubber foam packaging and sealing.

PROPERTIES	METRIC	TEST METHOD
Backing Thickness	110 Microns	PSTC - 133 / ASTM D 3652
Adhesion to Steel	20 N/25mm	PSTC - 133 / ASTM D 3652
Rolling Tack	10mm	PSTC - 101 / ASTM D 3330
Service Temperature	-20 ~ +60°C	PSTC - 6 / ASTM D 3121
Applying Temperature	+10 ~ +40°C	PSTC - 131 / ASTM D 3759



THICKNESS	WIDTH	LENGTH	ROLL / CARTON
0.11mm	50mm	50m	24
0.11mm	75mm	50m	16

TPALU

TPALU - P50: Aluminum Foil Polyester Tape

A laminated foil PET polyester backing, with a 20-micron aluminum foil thickness, offering excellent durability, strength, and superior adhesion.

PROPERTIES	METRIC	ENGLISH	TEST METHOD
Backing Thickness	20 Micron	0.8 Mil	PSTC-133 / ASTM D 3652
Total Thickness	55 Micron	2.2 Mil	PSTC-133 / ASTM D 3652
Adhesion to Steel	15 N/25mm	54 Oz./In.	PSTC-101 / ASTM D 3330
Tack Rolling Ball	5 cm	2.0 In.	PSTC-6 / ASTM D 3121
Tensile Strength	40 N/25mm	9.07 Lb/In	PSTC-131 / ASTM D 3759
Elongation	20.0%	20.0%	PSTC-131 / ASTM D 3759
Service Temperature	-30 ~ +100°C	-22 ~ +212°F	-----
Applying Temperature	+10 ~ 40°C	+50 ~ +105°F	-----

CODE	THICKNESS	WIDTH	LENGTH	ROLL / CARTON
TPALU-P50	20 Micron	48mm	50m	36



TPGLUE

Key Properties	Specifications
Material	Polychloroprene
Appearance	Black viscous liquid
Viscosity	2,000 - 3,000 cPs.
Solid content	24.00 - 26.00 %
High heat resistance	Approx. over 100°C
Open tack time	Short
Application temp	Room temp
Coverage (apply adhesive both surfaces)	200 - 220 g/m ²

Cautions

- Keep away from inflammable
- Use only in well ventilated areas
- Keep container tightly capped when not in use

ACCESSORIES

CODE	SIZE	PACKING
TPGLUE 700	700 GR / Can	12 Cans / Carton
TPGLUE 3500	3500 GR / Gallon	6 Gallon / Carton



- Keep in a cool, dry place
- Avoid contact with eyes, skin and clothing wash thoroughly after handling

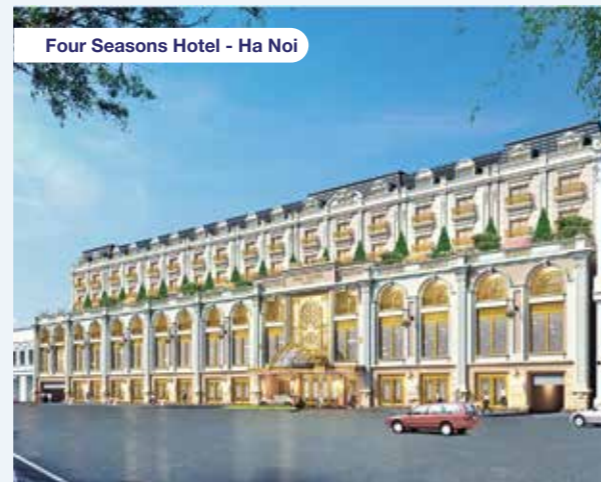
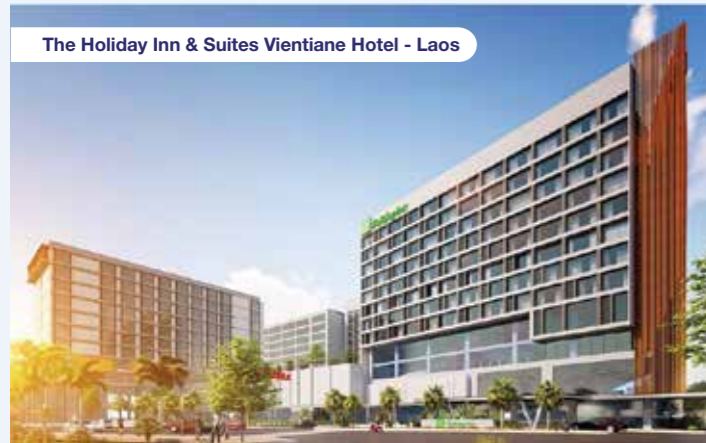
TPTAPE

Key Properties	Specifications
Material	Closed cell foam NBR
Color	Black
Density	40 - 60 kg/m ³
Hardness	40 - 60 shore C2
Water absorption	< 2% by Volume
Compression Deflection	6 - 8 PSI
Tensile strength	More than 60 PSI (4.2 kg / cm ²)
Elongation at break	More than 200%
Service Temperature	- 40°C to 105°C
Thermal Conductivity	0.04 W/mK at 20°C
Flammability	UL 94 Class V-0
Adhesive type	Acrylic Pressure Sensitive adhesive
Initial tack	3.0 cm

CODE	THICKNESS	WIDTH	LENGTH	PACKING
TPTAPE 525	5mm	25mm	10m	25
TPTAPE 532	5mm	32mm	10m	16
TPTAPE 325	3mm	25mm	10m	30
TPTAPE 350	3mm	50mm	10m	15



TYPICAL PROJECTS



TYPICAL PROJECTS

PROJECTS IN THE NORTH

Four Seasons Hotel	Hoan Kiem, Ha Noi
Trung tam Hanh chinh Hai Phong	Hai Phong
The Matrix One	My Dinh, Ha Noi
Imperial Smart City	Tay Mo, Ha Noi
Mipec Xuan Thuy	Cau Giay, Ha Noi
TNR Tran Hung Dao	Hoan Kiem, Ha Noi
Masteri Water Front	Gia Lam, Ha Noi
BRG Oriental Plaza Lang Ha	Ba Dinh, Ha Noi
Vincom Megamall	Gia Lam, Tay Mo, Ha Noi
Vinhomes Ocean Park, Smart City	Gia Lam, Tay Mo, Ha Noi
Vinfast	Hai phong, Ha Tinh
Me Linh Plaza	Thanh Hoa
Phenikaa Factory	Hoa Lac Hi-tech Park, Ha Noi
ITM V3 Factory	VSIP Bac Ninh
Citadines Marina	Ha Long
Sojo Hotel	Quang Ninh, Phu Tho, Hoa Binh
SEASTAR Hotel	Ha Long
Hoang Huy Commerce	Hai Phong
Danko City	Thai Nguyen
Shopping Center Go! (Big C)	Lao Cai, Thai Nguyen, Thai Binh
Construction Hospital	Ha Noi



PROJECTS IN THE SOUTH

Stella Vo Van Kiet	Binh Tan, Ho Chi Minh
An Phong Tower	Binh Thanh, Ho Chi Minh
Shopping Center Go! (Big C)	Ben Tre, Ba Ria
Sunbay Park	Ninh Thuan
UAC Factory	Da Nang Hi-tech Park, Da Nang
Regent Phu Quoc Resort	Phu Quoc
Flore Healthy Resort	Phan Thiet
Tropicana Ho Tram	Vung Tau
Marvella Hotel	Nha Trang
Crowne Plaza Starbay	Phu Quoc
Grand World Hotel	Phu Quoc, Kien Giang
Metropole 1.13	District 2, Ho Chi Minh

