

# MAXFLEX<sup>®</sup>

CLOSED CELL ELASTOMERIC THERMAL INSULATION



**EPDM**  
elastomeric  
thermal insulation



Quality Insulation Sheets for Refrigeration, Air Conditioning,  
Heating and Plumbing Applications.



# MAXFLEX<sup>®</sup>

## MAXFLEX INSULATION SHEET FOR DUCTWORK

Made from light weight elastomeric material, EPDM (ETHYLENE PROPYLENE RUBBER), MAXFLEX INSULATION SHEET is an ideal thermal insulation to prevent condensation problems on chilled water pipes or refrigerant lines, and also to against frost formation. MAXFLEX is available as precut sheet, standard flat sheet and sheet roll which are CFC free, HFC free, HCFC free and O.D.P. zero.

Being dust and fibre free, MAXFLEX is superior for air-ducting system. It has been favored over the fibrous insulation materials because of the possible health hazards and dangers caused by the loose particles of fibrous materials into air vents.

MAXFLEX can be used for both as interior or exterior insulating materials of all air-ducting systems. Safely handled without causing skin irritation and its flexibility makes installation work easy and neat. MAXFLEX is merchandized in ready-to-use Pressure Sensitive Adhesive and Aluminum Foil surface.

### Better temperature control & Energy conservation

Molecular structure of MAXFLEX is characterized by a large number of fine cross-linked closed cells which provides effective reduction of heat loss from indoor and outdoor air ducting systems. It also reduces waste of energy by higher heat gain into the cooling systems.

### Prevent Condensation Problems

Excellent moisture and vapor resistance due to its dense surface skin and the closed cell structure.

### Durable

Outstanding ozone/UV and weather resistance. Superior resistance against moisture, fungus growth, vermin and rodent attack.

### Excellent sound absorption

Acting as a vibration damper and serves as outer shields, MAXFLEX greatly reduces noise from mechanical equipment, as well as noise from cross-talk and air movement.

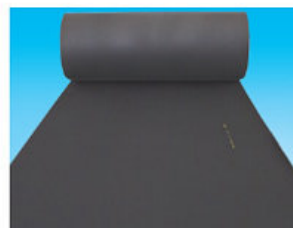
### Fire-resistant

MAXFLEX is complied with most international Smoke and Flammability Standards.

### Easy to Install

Outstanding flexibility for quick and easy installation. Gived the finished insulation a neat aesthetic appearance. No coating is needed on most indoor usage.

### Long years service of stable and low thermal conductivity value (K-Value).



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Outstanding ozone/UV and weather resistance.



Flexible, makes installation work easy and neat.



Superior resistance against moisture, fungus growth, vermin and rodent attack.







MAXFLEX is available in standard sheets and continuous sheet rolls at thickness: 1/4 " (6 mm.), 3/8" (9 mm.), 1/2" (13 mm.), 5/8" (16 mm.), 3/4" (19 mm.), 1 1/4 " (32 mm.), 1 1/2 (38 mm.) and 2" (50 mm.)

#### MAXFLEX STANDARD SHEET INSULATION AND CONTINUOUS SHEET ROLL (IMPERIAL SYSTEM)

MAXFLEX SHEET STANDARD FLAT SHEET CONTINUOUS SHEET ROLL	PRODUCT CODES (SIZES, LENGTH, O				
	1/4" Thick* (6 mm.)	3/8" Thick* (9 mm.)	1/2" Thick (13 mm.)	5/8" Thick (16 mm.)	3/4" Thick (19 mm.)
STANDARD FLAT SHEET SIZE 3 FT x 4 FT.	PSF14 (24 sht/ctn)	PSF38 (16 sht/ctn)	PSF12 (12 sht/ctn)	PSF58 (10 sht/ctn)	PSF34 (8 sht/ctn)
SHEET ROLL WIDTH 4FT. CONTINUOUS LENGTH	PSR14 (L = 72 ft) (288 ft <sup>2</sup> /ctn)	PSR38 (L = 50 ft) (200 ft <sup>2</sup> /ctn)	PSR12 (L = 36 ft) (114 ft <sup>2</sup> /ctn)	PSR58 (L = 32 ft) (128 ft <sup>2</sup> /ctn)	PSR34 (L = 23 ft) (92 ft <sup>2</sup> /ctn)

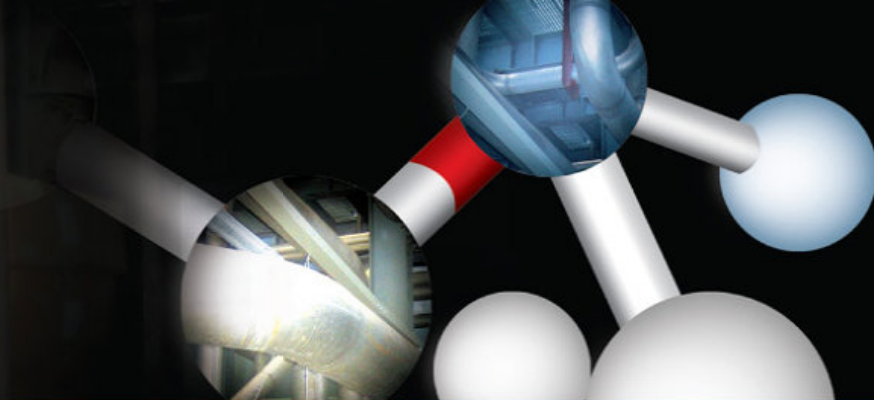
#### MAXFLEX STANDARD SHEET INSULATION AND CONTINUOUS SHEET ROLL (METRIC SYSTEM)

MAXFLEX SHEET STANDARD FLAT SHEET CONTINUOUS SHEET ROLL	PRODUCT CODES (SIZES, LENGTH, O				
	6 mm.Thick* (1/4")	9 mm.Thick* (3/8")	13 mm.Thick (1/2")	16 mm.Thick (5/8")	19 mm.Thick (3/4")
STANDARD FLAT SHEET SIZE 0.5 M. x 2.0 M.	MSF1 06 (24 M <sup>2</sup> /ctn)	MSF1 09 (16 M <sup>2</sup> /ctn)	MSF1 13 (12 M <sup>2</sup> /ctn)	MSF1 16 (10 M <sup>2</sup> /ctn)	MSF1 19 (8 M <sup>2</sup> /ctn)
STANDARD FLAT SHEET SIZE 1.0 M. x 2.0 M.	MSF2 06 (48 M <sup>2</sup> /ctn)	MSF2 09 (32 M <sup>2</sup> /ctn)	MSF2 13 (24 M <sup>2</sup> /ctn)	MSF2 16 (20 M <sup>2</sup> /ctn)	MSF2 19 (16 M <sup>2</sup> /ctn)
SHEET ROLL WIDTH 1.0 M. CONTINUOUS LENGTH	MSR06 (L = 22 m.) (22 M <sup>2</sup> /ctn)	MSR09 (L = 15 M.) (15 M <sup>2</sup> /ctn)	MSR13 (L = 11 M.) (11 M <sup>2</sup> /ctn)	MSR16 (L = 10 M.) (10 M <sup>2</sup> /ctn)	MSR19 (L = 7 M.) (7 M <sup>2</sup> /ctn)

#### MAXFLEX INSULATION FOAM TAPE DATA SHEET ( MAX DUCT TAPE )

PROPERTIES	TEST METHOD	RESULT		
SIZE - THICKNESS (mm.)	-	3 mm. (2.8 - 4.0 mm.)		
- WIDTH (mm.)	-	15 mm. (14.0 - 16.0 mm.)	20 mm. (19.0 - 21.0 mm.)	25 mm. (24.0 - 26.0 mm.)
- LENGTH	-	25 M. (25.0 - 25.2 M.)		
THERMAL CONDUCTIVITY	ASTM C-177	0.26 BTU. in/ft <sup>2</sup> hr.°F at 75°F / 0.04 W/m K at 24°C		
WATER ABSORPTION	ASTM D-1056	LESS THAN 5% BY WEIGHT		
WATER VAPOR PERMEABILITY	ASTM C-355, ASTM E96	0.07 perm-inch		
SERVICE TEMPERATURE	-	-20°F to +200°F (-29°C to +93°C)		
DENSITY	ASTM D-1667	4 - 6 lb/ft <sup>3</sup> (60 - 100 Kg/M <sup>3</sup> )		
COLOR	-	BLACK		





2" (13 mm.), 5/8" (16 mm.), 3/4" (19 mm.), 1" (25 mm.),

#### QUANTITY PER CARTON)

1" Thick (25 mm.)	1 1/4" Thick (32 mm.)	1 1/2" Thick (38 mm.)	2" Thick (50 mm.)
<b>PSF10</b> (6 sht./ctn)	<b>PSF114</b> (5 sht./ctn)	<b>PSF112</b> (4 sht./ctn)	<b>PSF20</b> (3 sht./ctn)
<b>PSR10</b> (L = 18 ft) (72 ft <sup>2</sup> /ctn)	<b>PSR114</b> (L = 13 ft) (52 ft <sup>2</sup> /ctn)	<b>PSR112</b> (L = 10 ft) (40 ft <sup>2</sup> /ctn)	<b>PSR20</b> (L = 8 ft) (32 ft <sup>2</sup> /ctn)

\*INSULATION 6 mm. AND 9 mm. THICK SHALL BE SUPPLIED WITH ONE SIDE SKIN.

#### QUANTITY PER CARTON)

25 mm.Thick (1")	32 mm.Thick (1 1/4")	38 mm.Thick (1 1/2")	50 mm.Thick (2")
<b>MSF1 25</b> (6 M <sup>2</sup> /ctn)	<b>MSF1 32</b> (5 M <sup>2</sup> /ctn)	<b>MSF1 38</b> (4 M <sup>2</sup> /ctn)	<b>MSF1 50</b> (3 M <sup>2</sup> /ctn)
<b>MSF2 25</b> (12 M <sup>2</sup> /ctn)	<b>MSF2 32</b> (10 M <sup>2</sup> /ctn)	<b>MSF2 38</b> (8 M <sup>2</sup> /ctn)	<b>MSF2 50</b> (6 M <sup>2</sup> /ctn)
<b>MSR25</b> (L = 5 M.) (5 M <sup>2</sup> /ctn)	<b>MSR32</b> (L = 4 M.) (4 M <sup>2</sup> /ctn)	<b>MSR38</b> (L = 3 M.) (3 M <sup>2</sup> /ctn)	<b>MSR50</b> (L = 2 M.) (2 M <sup>2</sup> /ctn)

\*INSULATION 6 mm. AND 9 mm. THICK SHALL BE SUPPLIED WITH ONE SIDE SKIN.

5 mm. (5.8 - 7.5 mm.)			
15 mm. (14.0 - 16.0 mm.)	20 mm. (19.0 - 21.0 mm.)	32 mm. (31.0 - 33.0 mm.)	40 mm. (39.0 - 41.0 mm.)
10 M. (10.0 - 10.2 M.)			



#### Standard Flat Insulation Sheet

Size 0.5 M. x 2.0 M. and 1.0 M. x 2.0 M.,  
6 mm. to 50 mm. thick.



#### Continuous Sheet Roll

Sheet width 1.0 M. & 1.5 M.,  
6 mm. to 50 mm. thick.



#### MAX DUCT TAPE

Insulation Foam Tape, width  
15 to 40 mm., 3 mm. & 5 mm. thick.



#### MAXGLUE

Adhesive for MAXFLEX, 700 gm./can.



## MAXFLEX PHYSICAL PROPERTIES

PHYSICAL PROPERTIES *		MAXFLEX					TEST METHOD*
Material		ethylene propylene synthetic rubber blend with additive					
Cell Structure		Closed Cell					-
Density lbs/ft <sup>3</sup> (g/cm <sup>3</sup> )		3~6 (0.048 ~ 0.096)					ASTM D 1667
Thermal Conductivity BTU. in/ft <sup>2</sup> hr. °F (W/m.K)	Mean Temp.	-4°F (-20°C)	32°F (0°C)	75°F (24°C)	90°F (32°C)	104°F (40°C)	ASTM C 177 JIS A1412 DIN 52613
	K-Value	0.22 0.032	0.23 0.034	0.25 0.037	0.26 0.038	0.27 0.039	
Service Temperature **		-70 °F to 257°F -57 °C to 125°C					MAXFLEX becomes hard at -57°C but can be used even at -200°C
Water Vapor Permeability (kg./Pa.s.m)		0.07 perm - inch ( 0.09 x 10 <sup>-12</sup> )					ASTM C 355 ASTM E96 ***
Moisture Resistance ( $\mu$ value)		$\mu$ not less than 10000					DIN 52615
Water Absorption (weight %)		not more than 2%					ASTM D 1056
Ozone Resistance		No crack					ASTM D 1171
Heat Stability (% shrinkage) at 200°F and 220°F for 7 days		3.5 and 5.5 respectively					ASTM C 534
Flammability & Smoke Density		Class VO					UL - 94
		Self-extinguishing					ASTM D 635
		Class 1					BS476 Part 7 1987
		Class 0					BS476 Part 6 1987
		smoke density 40					ASTM-E84 (15 mm. thick)
U.V. Weather Resistance		Excellent					-
Nitrosamine Contents		Not detected					U.S. FDA
Fungus Resistance Test		Pass					ASTM G21
Flexibility		Excellent					-

Note : \* Figures show the average values obtained by the world well-known testing institutes.

\*\* At temp. under -57°C MAXFLEX becomes hard, but it doesn't affect thermal conductivity nor water vapor permeability.  
In the heating applications MAXFLEX can stand +125°C continuously, and the adhesive upto +100°C

\*\*\* Water Vapor Permeability test was done under test method ASTM E96 Dehydrate test method at 37.8°C

### Sound Absorption Coefficient at Frequency

Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1" (25mm.)	0.08	0.22	1.00	0.37	0.68	0.50	0.60

### Sound Transmission Class (STC )

Thickness	STC Class
1" (25mm.)	25





[www.maxflexinsulation.com](http://www.maxflexinsulation.com)



## VANDAPAC

Established in 1988, Vandapac Co.,Ltd. is a world class manufacturer for OMD and quality products in 3 main groups: Disposable Packaging, Automotive Accessories and Thermal Insulation.

VANDAPAC's Insulation Division is premier manufacturer of closed cell elastomeric thermal insulation. A Product developed from ethylene propylene diene monomer synthetic rubber's research. Produced by using a specially designed manufacturing technique.

Universal confidence in the international standard and quality of our thermal insulation products is reflected by the fact that we export MAXFLEX all over the world.

## VANDAPAC CO., LTD.

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