A-flex

Closed Cell Elastomeric
Nitrile Insulation material
Class 1

A-Flex Class 1 Nitrile Insulation Sheets/ Tubes

A-flex is a flexible thermal insulation material made from closed-cell, elastomeric nitrile rubber. ALP-Aflex is produced in pre- formed sheets and pipe sections. These products meet insulation requirements in diverse fields such as the automobile, air conditioning & refrigeration industry, construction segment, hospitals, pharma industries, hotels and cold storage industries.

Product Features

- Completely closed cell elastomeric nitrile insulation
- Quick and easy to install with no special tools.
- Flexible, durable and easy to handle.
- Excellent compression strength due to closed cell structure.
- Superior thermal insulation properties over other open or closed cell insulation material due to high water vapour resistance property of nitrile rubber.
- Very high diffusion resistance and no cladding required if installed inside.
- Class 1 fire safety as per BS 476 part 7.

Size availability

- 6mm, 9mm, 13mm, 19mm, 25mm and 32mm wall thickness to fit all standard copper and iron pipes diameters from 6.4mm (¼") to 108mm (4 ¼").
- Other size available on request.
- Tube length : 1.83 meters (6 ft).
- Available in special sizes and long coils on request.

A-flex - Star Tubing (Class 1 Nitrile Insulation Tube packing list)

Packing Details for A-flex Star Tubing Tubes :

Size- ID		6mmThk		9mmThk		13mmThk		19mmThk		25mmThk		32mmThk	
mm.	inch.	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn	Pcs./ Crtn	Mtr./ Crtn
6	1/4	250	457.50	170	311.1	110	201.30	48	87.84				
10	3/8	200	366.00	120	219.60	90	164.70	36	65.88	15	27.45	15	
13	1/2	150	274.50	100	183.00	72	131.76	30	54.90	25	45.75	25	
16	5/8	120	219.60	90	164.70	63	115.29	30	54.90	25	45.75	25	
19	3/4	100	183.00	72	131.76	56	102.48	30	54.90	20	36.60	20	36.60
22	7/8	90	164.70	60	109.80	42	76.86	24	43.92	18	32.94	18	32.94
25	1	80	146.40	50	91.50	42	76.86	20	36.60	16	29.28	16	29.28
28	1 1/8	70	128.1	50	91.50	36	65.88	20	36.60	16	29.28	16	29.28
32	1 1/4			42	76.86	30	54.90	20	36.60	15	27.45	15	27.45
35	1 3/8			36	65.88	30	54.90	16	29.28	12	21.96	12	21.96
42	1 5/8			30	54.90	25	45.75	16	29.28	12	21.96	12	21.96
48	1 7/8			28	51.24	20	36.60	15	27.45	10	18.30	10	18.30
51	2			24	43.92	20	36.60	12	21.96	9	16.47	9	16.47
54	2 1/8			20	36.60	18	32.94	12	21.96	9	16.47	9	16.47
60	2 3/8			20	36.60	15	27.45	10	18.30	9	16.47	9	16.47
67	2 5/8			18	32.94	13	23.79	9	16.47	8	14.64	8	14.64
73	2 7/8			18	32.94	13	23.79	9	16.47	8	14.64	8	14.64
76	3			18	32.94	12	21.96	8	14.64	8	14.64	8	14.64
79	3 1/8			15	27.45	12	21.96	8	14.64	6	10.98	6	10.98
89	3 1/2			20	36.6	12	21.96	6	10.98	6	10.98	6	10.98
102	4							5	9.15	5	9.15	5	9.15
108	4 1/4							5	9.15	5	9.15	5	9.5
114	4 1/2												

Tube length : 1.83 Mtrs. (Special Sizes available on request)
Length 1830 ± 20mm. Thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

Specification sheet

Technical Performance	
Density	50 Kg/M^3 ± 20%
Temperature Range *	-40°C to + 115 °C
Thermal Conductivity W/m.K ASTM-C-518 & ISO 8301	0.0351 W/ mK @ 10°C 0.0362 W/mK @ 20°C 0.0373 W/mK @ 30°C 0.0385 W/mK @ 40°C
Water vapour diffusion Resistance factor μ	≥ 7,000
Corrosion Risk	pH 7 (neutral)
Toxicology	Low toxicity index (as per NCD-1409)
Ecological Data	No asbestos, No HCFC - CFC, No Formaldehyde - Cd-Hg etc.
Resistance to Fungi	No growth observed ASTM : G 21
Closed Cell	> 90%
Ozone resistance	Very Good
Resistance to Oil and Grease	Very Good
Odour	Negligible
Noise reduction	upto 35dB (A)
Reaction to Fire BS 476 Part 7	Class 1

* For temperature below -40°C pls consult our engineering group

A-flex - S Class 1 Nitrile Insulation Sheet packing list

ALP-AFlex Continuous Sheets

Sheet Thickness (mm)	Dimensions	Roll Content sq. mtr.	Sheet Thickness (mm)	Dimensions	Roll Content sq. mtr.
3*	1m x 100m	100	16	1m x 20m	20
6	1m x 40m	40	19	1m x 15m	15
9	1m x 30m	30	25	1m x 10m	10
13	1m x 25m	25	32	1m x 8m	8

* 3mm sheet is available with one side skin only

Tolerance - ID from 6mm to 42 mm tolerance of + 2mm/-0mm, and above 42mm + 3mm/-0. For thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

ACCOFOAM

Product features

ACCOFOAM is a thermo-acoustic convoluted elastomeric Nitrile/EPDM rubber foam material scientifically developed to provide superior sound absorption in the low and mid frequency range.The convoluted shape increases the absorptive surface area than a flat surface and it entraps and deflects sound waves efficiently. ACCOFOAM is a great choice where a fire safe, flexible, light weight, high performance noise absorption material is required.

ACCOFOAM is an excellent internal insulation lining material for circular ducts and provides both thermal and acoustic insulation.

Applications

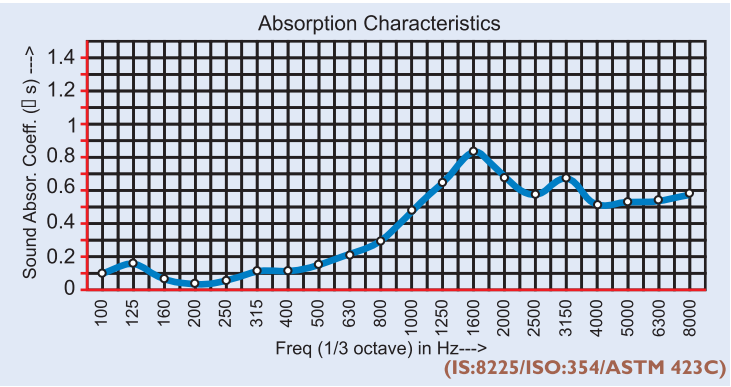
Industry	Acoustic Lining of ducts, Air Handling Units, Acoustic Panels, Speaker box acoustic lining, Enclosures and canopy of factory machinery, fans, generators, engines and compressors.
Transport	Engine enclosures in vehicles and vessels, bus body - anti damping, Operator's cabin.
Health Care	Audiometric room, generator enclosure, Air-conditioning and ventilation ducts.
Commercial Buildings	Auditoriums, Wall acoustics, Multiplexes, Recording room, Studios, Cinema halls, Office Partitions, Discotheque, Home theater, Air - conditioning ducts and ventilation systems.

Technical data

Temperature range	- 40°C to + 115°C
Fire Safety	Class "1" & Class "O"
Thermal conductivity	0.0362W/m K @ 20°C
Colour	Black
Thickness	9 mm, 12 mm, 15 mm, 19, 25mm
Density	50 Kg/m3 ± 20%
Antifungal*	ASTM G21
Antibacteria*	ASTM 2180

Packing Details

Thick	*Size*	*Total (Sq. Mtrs.)*
9mm	9mm x 25mtr x 1mtr x 2 rolls	50
12mm	12mm x 20mtr x 1mtr x 2 rolls	40
15mm	15mm x 15mtr x 1mtr x 2 rolls	30
19mm	19mm x 10mtr x 1mtr x 2 rolls	20
25mm	25mm x 8mtr x 1mtr x 2 rolls	16

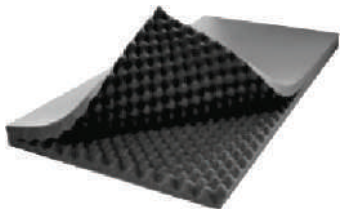


Advantages

- Good sound absorption
- Fire Safety – class "1" & Class "O"
- Vibration/jolting- resistant
- Easy to apply
- Antimicrobial range is also available* (EPA approved anti-microbial agent)
- Light weight and flexible
- No health hazard
- No fungal growth ASTM G21
- Fiber free

Method of Use

The sheets are cut to the required shape and carefully stuck using a suitable rubber based adhesive on to a surface that must be free from oil, dirt and dust.



Note:The shaping, thickness and positioning of the material is of major importance to achieve an optimal noise-absorption effect. Pressure sensitive adhesive backing is available against special order. Tolerance - Width 1000mm ± 20mm. Sheet thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

ACCOSOUND

Product Characteristics

Accosound is a blended elastomeric nitrile rubber acoustic absorber having open cell structure with complex pore geometry for effective absorption of air-borne sound across a broad range of frequencies. The high density provides an effective barrier to sound transmission. The elastic properties helps to dampen the structure-borne noise transmission. Antimicrobial range is also available* (EPA approved anti-microbial agent)

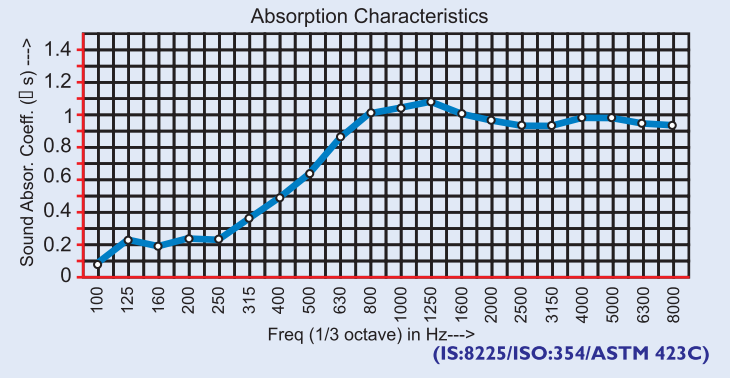
Applications

Industry	Generator Canopies, Engines, Air Handling Units, Wall Acoustics, Printing and Metal Handling Machinery, Pipelines, Vacuum Cleaner, Washing Machine and General Enclosures.
Transport	Engine rooms in vehicles and vessels, operator's cabin of earth moving machinery, Mobile generator vans.
Health Care	Audiometric rooms.
Commercial Buildings	Lifts, Motor Rooms, Office Partitions, Floating Floors, Recording Rooms, Bowling Alley, Dance Floors, Studios, Auditoriums, Multiplexes and Cinema Halls.

Technical data

Noise Absorption	See Diagram
Max. Surface Temp.	+105° C
Min. Surface Temp.	- 40° C
Fire safety	Class 1 (BS476 Part 7), ASTM D635, IS 15061
Colour	Black
Density	180 Kg/m³ (±10%)
Antifungal	ASTM G21
Antibacteria	ASTM 2180

(Also available in density 200, 250 Kg/m³)



Packing Details

Thick	*No of Pcs/Box*	*Total SQM/Box*
10mm	10 Pcs	10 Sqm
12mm	8 Pcs	8 Sqm
15mm	7 Pcs	7 Sqm
20mm	5 Pcs	5 Sqm
25mm	4 Pcs	4 Sqm
30mm	3 Pcs	3 Sqm
50mm	2 Pcs	2 Sqm
100mm	1 Pcs	1 Sqm

Advantages

Effective noise control and thermal insulation
Dust and Fiber Free
Resistant to Mineral Oil, Organic Solvents and Dilute Inorganic Acids & Bases

Method of Use

The sheets are cut to the required shape and carefully stuck using a suitable rubber based adhesive on to a surface that must be free from oil, dirt and dust.

Note: The shaping, thickness and positioning of the material is of major importance to achieve an optimal noise-absorption effect. It can be used for noise control in a Wide range of industrial fields. Please refer details given in the datasheets. Please contact us for feasibility of manufacturing of customized material sizes.
Tolerance - Width 1000mm ± 20mm. Sheet thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

Pipe Size	Line Temp. 60°F (15.5°C)	Line Temp. 50°F (10°C)	Line Temp. 35°F (1.7°C)	Line Temp. 0°F (-18°C)
	Based on Normal Condition Max. 85°F (29.4°C) 70% RH			
3/8" ID Thru 3" IPS Over 3" IPS	1/4" Wall 3/8" Sheet	3/8" Wall ½" Sheet	½" Wall 3/4" Sheet	1" Wall 1-1/4" Sheet
	Based on Mild Condition Max. 80°F (26.6°C) 50% RH			
3/8" ID Thru 3" IPS Over 3" IPS	1/4" Wall 3/8" Sheet	3/8" Wall ½" Sheet	3/8" Wall 3/4" Sheet	3/4" Wall 3/4" Sheet
	Based on Severe Condition Max. 90°F (32.2°C) 80% RH			
3/8" ID Thru 3" IPS Over 3" IPS Thru 10" IPS Over 10" IPS	1/2" Wall 3/4" Sheet 3/4" Sheet	3/4" Wall 1" Sheet 1" Sheet	1" Wall 1-1/8" Sheet 1-1/8" Sheet	1-1/2" Wall 1-3/4" Sheet 2" Sheet
	Based on Extremely Severe Condition Max. 90°F (32.2°C) 85% RH			
3/8" ID Thru 3" IPS Over 3" IPS Thru 10" IPS Over 10" IPS	3/4" Wall 1" Sheet 1" Sheet	1" Wall 1-1/4" Sheet 1-1/4" Sheet	1-1/4" Wall 1-1/2" Sheet 1-1/2" Sheet	2" Wall 2-1/2" Sheet 2-1/2" Sheet

Thickness Recommendation for Ducting Systems

Ambient Condition	Operating Temperature			
	60°F (15.5°C)	55°F (12.7°C)	50°F (10°C)	45°F (7.2°C)
80°F (26.6°C) 50% RH	1/4" (6 mm.)	1/4" (6 mm.)	1/4" (6 mm.)	3/8" (9 mm.)
85°F (29.4°C) 70% RH	3/8" (9 mm.)	3/8" (9 mm.)	3/8" (9 mm.)	1/2" (12 mm.)
90°F (32.2°C) 80% RH	5/8" (15 mm.)	3/4" (19 mm.)	3/4" (19 mm.)	1" (25 mm.)
90° F (32.2°C) 85% RH	1" (25 mm.)	1" (25 mm.)	1" (25 mm.)	1-1/4" (32 mm.)

AFLEX-AEROFLEX TECHNICAL SUPPORT -Our computer based design program is available to assist you with the right thickness selection.

ALP AEROFLEX®

Indian Green Building Council
MEMBER

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