AEROCELL

Closed Cell Elastomeric
Nitrile Insulation material
Class O

nuear rol HVAC Projects and Industrial applications



## **AEROCELL** Nitrile Class 'O' insulation sheet/ tubes.

### **Benefits**

- Excellent insulation properties due to low k-value, that remain unchanged during service life time of hot/cold installation and are unaffected by humidity.
- The closed-cell structure will not absorb or allow the spread of water, thus preventing condensation or frost formation on cooling systems, chilled water & refrigerant lines. No additional water vapour barriers are required.
- Supplied with reinforced aluminium foil, for increased performance and quicker installation. Adhesive backing is also available.
- Wide working temperature (-40°C to +115°C).
- Thinner gauges can be used to achieve effective insulation due to low k-value and high water vapour diffusion resistance  $(\mu)$  This also allows the use of material in areas with space limitations.

## **Application Areas**

- Duct Insulation.
- Antimicrobial
- Raised Floor Insulation
- GeneralThermal Insulation (large diameter pipes, tanks, vessels, etc).
- AC Unit Insulation (internal insulation of units, evaporators, etc).

#### Clean room applications.

- Cold Storage applications.
- Underslab Insulation. Transport segment AC Units
- Chilled Water



## **Specifications**

#### **Technical Performance** Density 50 Kg/M³ ± 20%(Sheet), 60 Kg/M³ ± 20%(Tube) Temperature Range \* -40°C to + 115 °C Thermal Conductivity W/m.K 10 °C 0.0351 W (m.k) ASTM-C-518 & ISO 8301 20 °C 0.0362 W (m.k) 30 °C 0.0373 W (m.k) 40 °C 0.0385 W (m.k) Water vapour diffusion Resistance factor µ ≥ 7,000 Corrosion Risk pH 7 (neutral) Toxicology Low Carbon Monoxide Formation meets IMO RES.MSC 61 (67) **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 Negligible Noise reduction upto 35dB (A) Reaction to Fire BS 476 Part 6 & 7 Class 0 UI 94 FM Approved

## **DUCT FLANGE TAPE**

Self Adhesive elastomeric foam gasket tape for air-duct flange connection

Duct Flange Tape is the flexible and self-adhesive insulation foam tape, which is made from Class 'O' Nitrile rubber elastomeric Closed Cell Insulation. Energy saving and very easy to use. Excellent for preventing condensation problems. No problem of delamination. Duct Flange Tape is specially coated with selected acrylic pressure sensitive adhesive providing long service life.

### Aerocell-T

| Packaging details for Class 'O' Aerocell Tubes |       |               |               |               |               |               |               |               |               |               |               |               |               |
|--|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Size- ID                                       |       | 6mmThk        |               | 9mmThk        |               | 13mmThk       |               | 19mmThk       |               | 25mmThk       |               | 32mmThk       |               |
| mm.  | inch. | Pcs./<br>Crtn | Mtr./<br>Crtn |
| 6  | 1/4   | 250           | 457.5         | 170           | 311.1         | 110           | 220           | 48            | 87.84         |               |               |               |               |
| 10   | 3/8   | 200           | 366           | 120           | 219.6         | 90            | 180           | 36            | 72            | 25            | 50            |               |               |
| 13   | 1/2   | 150           | 274.5         | 100           | 183           | 72            | 144           | 30            | 60            | 25            | 50            |               |               |
| 16   | 5/8   | 120           | 2196          | 90            | 164.7         | 63            | 126           | 30            | 60            | 25            | 50            |               |               |
| 19   | 3/4   | 100           | 183           | 72            | 131.76        | 56            | 112           | 30            | 60            | 20            | 40            | 20            | 40            |
| 22   | 7/8   | 90            | 164.7         | 60            | 120           | 42            | 84            | 24            | 48            | 18            | 36            | 18            | 36            |
| 25   | 1     | 80            | 1464          | 50            | 100           | 42            | 84            | 20            | 40            | 16            | 32            | 16            | 32            |
| 28   | 1 1/8 | 70            | 1281          | 50            | 100           | 36            | 72            | 20            | 40            | 16            | 32            | 16            | 32            |
| 32   | 1 1/4 | 50            | 91.5          | 42            | 84            | 30            | 60            | 20            | 40            | 15            | 30            | 15            | 30            |
| 35   | 1 3/8 | 60            | 1098          | 36            | 72            | 30            | 60            | 16            | 32            | 12            | 24            | 12            | 24            |
| 38   | 1 1/2 |               |               |               |               |               |               | 16            | 32            | 12            | 24            |               |               |
| 42   | 1 5/8 |               |               | 30            | 60            | 25            | 50            | 16            | 32            | 12            | 24            | 12            | 24            |
| 45   | 1 3/4 |               |               | 24            | 48            | 20            | 40            |               |               |               |               |               |               |
| 48   | 1 7/8 |               |               | 28            | 56            | 20            | 40            | 15            | 30            | 10            | 20            | 10            | 20            |
| 51   | 2     |               |               | 24            | 48            | 20            | 40            | 12            | 24            | 09            | 18            | 09            | 18            |
| 54   | 2 1/8 |               |               | 20            | 40            | 18            | 36            | 12            | 24            | 09            | 18            | 09            | 18            |
| 60   | 2 3/8 |               |               | 20            | 40            | 15            | 30            | 10            | 20            | 09            | 18            | 06            | 12            |
| 63   | 2 1/2 |               |               | 18            | 36            |               |               | 10            | 20            |               |               |               |               |
| 67   | 2 5/8 |               |               | 18            | 36            | 13            | 26            | 09            | 18            | 08            | 16            | 08            | 16            |
| 73   | 2 7/8 |               |               | 18            | 36            | 13            | 26            | 09            | 18            | 08            | 16            | 07            | 14            |
| 76   | 3     |               |               | 18            | 36            | 12            | 24            | 08            | 16            | 08            | 16            | 06            | 12            |
| 79   | 3 1/8 |               |               | 15            | 30            | 12            | 24            | 08            | 16            | 06            | 12            | 06            | 12            |
| 89   | 3 1/2 |               |               | 10            | 20            | 12            | 24            | 06            | 12            | 06            | 12            | 05            | 10            |
| 92   | 3 5/8 |               |               |               |               |               |               |               |               |               |               | 05            | 10            |
| 102  | 4     |               |               |               |               |               |               | 05            | 10            | 05            | 10            | 04            | 08            |
| 108  | 4 1/4 |               |               |               |               |               |               | 05            | 10            | 05            | 10            | 02            | 04            |
| 114  | 4 1/2 |               |               |               |               |               |               |               |               |               |               | 02            | 04            |

Tube length : 2 Mtrs. (Special Sizes available on request)
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.

#### Aerocell-S

### Packaging details for Class 'O' Aerocell Sheet Rolls

| Sheet Thickness (mm) | Dimensions | Roll Content sq. mtr. | Sheet Thickness (mm) | Dimensions | Roll Content<br>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                        |  |

<sup>\* 3</sup>mm sheet is available with one side skin only Tolerance - Width 1000mm ± 20mm. Sheet thickness from 6mm to 19mm ± 1mm and for 25mm & 32mm ± 2mm.

Processed from CLASS - O Light weight, flexible

elastomeric nitrile rubber foam insulation



<sup>\*</sup> For temperature below -40°C pls consult our engineering group

## Aerocell-AM (Anti Microbial)

The new range of anti-microbial cellular elastomeric nitrile rubber insulation from Aerocell.

ALP Aeroflex has regularly displayed an ability to innovate and bring a range of quality rubber products. Continuing in the same spirit to innovate, upgrade and expand, the company has introduced the antimicrobial closed cell expanded elastomeric nitrile insulation.

The improved cell structure has improved thermal insulation properties, superior protection against microbes, fungi and bacteria and improved resistance to moisture and vapour transmission.

This is a light weight flexible foam material designed for clean room insulation applications. It is available in sheet and pipe form.



- Closed cellular structure
- Lower thermal conductivity k Value improved insulation
- Energy savings
- Fire safe Class 'O'
- No fungal growth
- Antimicrobial properties
- Excellent resistance to moisture and water vapour diffusion
- Dust and fiber free
- Quick and easy installation
- EPA approved anti-microbial agent

Material : Elastomeric closed cell nitrile rubber insulation

Colour : Black

Density :  $50 \text{ Kg/m}3 \pm 20\%$ 

Thermal conductivity :  $k = 0.0351 \text{ W/m K} @ 10^{\circ}\text{C}$ 

Temperature range :  $-40^{\circ}$ C ~  $115^{\circ}$ C

Fire Safety : Class O, BS 476 part 6 and Part 7

Fungi Resistance : ASTM G 21

Anti Microbial : JIS Z 2801/ ASTM G2180

Water vapour diffusion resistance factor  $\mu \ge 7,000$ 

## **ACCOFOAM (Acoustic Insulation)**

#### Product features

ACCOFOAM is an acoustical convoluted elastomeric nitrile 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. Antimicrobial range is also available.

### **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<br>Buildings | Auditoriums, Wall acoustics, Multiplexes, Recording room, Studios, Cinema halls, Office Partitions, Discotheque, Home theater, Air - conditioning ducts and ventilation systems.   |

Absorption Characteristics

### Advantages

- Good sound absorption
- Fire Safe class O
- Vibration/jolting- resistant
- Easy to apply

Temperature range - 40°C to + 115°C

Fire Class "O"

Coefficient of thermal-  $k = 0.0362 \text{ W/m K} @20^{\circ}\text{C}$ 

-conductivity

Technical data

Colour Black

Thickness 9, 12,15,19 & 25 mm

Density 50 Kg/m $^3$   $\pm$  20%

Roll Size 8000  $\times$  1000 mm

(Special Sizes can be

• Light weight and flexible

No fungal growth ASTM G21

No health hazard

supplied on request )

to apply • Fiber free

#### Method of Use

0.8

0.4

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:

(IS:8225/ISO:354/ASTM 423C)

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 - 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.

### SPECIAL PRODUCTS

### **Retrofit Tube**

- Pre-slit insulation tube with self sealing adhesive lining, protape covered
- Thickness 9mm to 32mm
- Inner Dia Options 13mm to 165mm
- Excellent solution for insulating retrofit pipelines
- Energy savings
- Dust and fiber free



### **ACCESSORY**

## **ECO TAPE**

Self-adhesive rubber tape for insulation tubes and sheets joints

Self-adhesive Foam Tape processed from Class 'O' Nitrile rubber insulation

Size :  $3mm \times 50mm \times 9.1m$  $6mm \times 50mm \times 4.5m$ 













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