



# CAREFLEX<sup>®</sup>

INSULATION SYSTEMS

The Careflex - NBR insulation in the cooling & heating sector on the basis of elastomeric foam with closed-cellular structure



## CAREFLEX - NBR



**\* LETS CARE ENERGY BETTER \***

# CAREFLEX<sup>®</sup> - NBR INSULATION

## Applications

$\mu \geq 5,000$

$\lambda 0^\circ \leq 0.036$

CFC free

Careflex is ideal for all thermal insulation needs in :-

**Airconditioning Projects** :- For insulating chilled water pipes, chillers, supply & return air ducts and ancillary equipments. **Hot & Cold Water Plumbing System** - For insulating hot & cold pipes used in commercial, residential buildings & various industries. **Solar Water Heating System** - For insulating delivery pipes, panel and hot water storage tank etc. **Refrigeration Industries** - For insulating pipe works & ancillary equipments for refrigeration. **Process Works** - For insulating pipes carrying Hot and cold fluids including equipments. **Many Other Areas** - For energy conservation in almost all areas i.e Hotel, Hospitals, Dairy & Food Processing, coldstorages, refineries & coldmountainous regions.

## PRODUCT RANGE :

| ID OF TUBING | TO SUIT PIPES OF DIFFERENT SIZES | WALL THICKNESS AVAILABLE |     |      |      |      |
|--------------|----------------------------------|--------------------------|-----|------|------|------|
| 6 - 108 mm   | From 6mm OD to 110 mm OD         | 6mm                      | 9mm | 13mm | 19mm | 25mm |

- \* Sheets as rolls of 1.2 metre width in 6, 10, 13, 16, 19 & 25 mm wall thickness are available in standard length of 30, 20, 15, 12, 10 & 8 mtr respectively.
- \* Pre-cut tube section with self adhesive seal in certain sizes & adhesive sheets are also available.

**Accessories:** Insulation tape of 3 mm thick is available for joint sealing & covering of fittings or valve etc.

| Tolerance in dimension: |                    | Thickness  | Length    | Diameter  |
|-------------------------|--------------------|--|-----------|---|
|                         | Tubes              | $\pm 1\text{mm to } \pm 2\text{mm}$ (wall 6 - 25 mm) | $\pm 2\%$ | $\pm 1\text{mm} - \pm 6\text{mm}$ (6mm ID to 108 mm ID) |
| Sheets                  | $\pm 1.0\text{mm}$ | $\pm 2\%$  |           |   |

## Advantages of Careflex-NBR Insulation

- > Low thermal conductivity, which makes it highly effective in the insulation of cooling & heating systems.
- > Light weight and flexible thus making installation very easy and speedy ultimately saving time & cost.
- > The improved  $\mu$  value in closed cell structure makes an impermeable layer which is in itself a good vapour barrier.
- > It is suitable for application within the temperature range of  $-40^\circ\text{C}$  to  $+105^\circ\text{C}$ .
- > The material has been specially compounded to be self-extinguishing in nature.
- > It is Free of CFC, HCFC, Fiber. And it does not cause skin allergy.
- > **Less thickness is required in specifying Careflex-NBR insulation in comparison to other materials due to very low thermal conductivity & better resistance to moisture.**
- > "Careflex" also retard heat loss in hot water plumbing and solar heating systems. It also protects piping by acting as a vibration damper and giving protection against corrosion from atmospheric environment.
- > Wide range of tubes & sheets is available to ideally suitable for insulation of different pipe sizes, air ducts and large surface areas e.g. tanks or irregular shaped vessel.

**UV RAYS PROTECTION** : It is strongly recommended to protect outdoor insulation from UV rays & weather by using Careflex coating paint or aluminium sheet covering or any equivalent UV resistant finish.

## CAREFLEX - NBR TECHNICAL DATA

### TEST ITEM

Density  
 Flammability (%)  
 Thermal Conductivity  
 Water Vapour Permeability (g/(m.s.pa))  
 Water Absorption Ratio (%)  
 Crack resistance (N/cm)  
 Compression Resilience, Ratio (50%, 72 h) (%)  
 Ozone Resistance (200h, Pressure 202 Pa)  
 Aging Resistance (150h)  
 Colour & Appearance  
 Noise Reduction  
 Resistance to building materials

### SPECIFICATION

50-100 kg/m<sup>3</sup>  
 Oxygen Index (OI)  $\geq 22$  Smoke Density (SD)  $\leq 75$   
 Mean Temp.  $-20^\circ\text{C}$   $0^\circ\text{C}$   $+20^\circ\text{C}$   $+40^\circ\text{C}$   
 W/(m.K) 0.034 0.036 0.038 0.040  
 Permeability Coefficient (PC)  $\geq 1.0 \times 10^{-10}$   
 Moisture Resistance Factor  $\mu \geq 5.0 \times 10^3$   
 $\leq 10$   
 $\geq 3.0$   
 $\geq 70$   
 No Cracking  
 Slightly crumpling, no cracks, no pin holes, no deformation  
 Black & flat surface free of bubble & crack  
 Acoustic level to 35 dB(A)  
 Very Good

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To the best of our belief, technical data set out in this publication is accurate. However, it is purely for guideline purpose.

### Marketing Associate