

Elastomeric Nitrile Foam V/s Cross Linked Polyethylene Foam

A-flex Nitrile Foam

Cross Linked Polyethylene Foam

FIRE RESISTANCE

Excellent Fire resistance. Conforms to BS-476 Part 6 & 7 Class 0. It has similar characteristics as non-combustible materials. Also conforms to new European Standards & classification system, Euro Class B.

Fire sensitive material and it does not confirm to BS-476 Part-6 without a proper aluminium foil facing. Whereas material available with metalised polyester film makes it more fire sensitive.

WATER VAPOUR DIFFUSION

The closed cell structure has an inbuilt water vapour barrier so ingress and outgress of water vapour is negligible. The values of Water Vapour Diffusion Factor is ≥ 7000 .

Has a very low μ value that increases moistening which in turn increases Thermal Conductivity (k) value thus necessitating usage of higher thickness for the same operating conditions. Needs separate vapour barrier.

COST

Soft and flexible material and can be bent to take contours. Insulation on cylindrical and round surfaces easy. Highly cost effective. Fast installations are possible in extreme site conditions as it does not need additional support systems.

Insulated surface needs external protection after installation and is finished either with metalized Polyester Film or Al -sheet cladding. With low thermal resistance, customers pay more for deriving less benefit besides assuming risk of fire hazard.

SHELF LIFE

Has a much longer shelf life than any other insulation material. Can take expansion and contraction due to change in temperatures.

Has a much lower shelf life. With variation in weather conditions, it gets brittle and develops cracks due to expansion and contraction.

HEALTH HAZARDS

Because of its fiber free neutral nature, it is most opted material for application in areas like Pharma units, Operation Theaters, Hotels, etc.

Fiber free neutral in nature.

TEMPERATURE RANGE

The service temperature ranges from -200°C to $+115^{\circ}\text{C}$.

The service temperature ranges from -40°C to $+100^{\circ}\text{C}$.

RADIATION EFFECT

Can be installed outdoors with a layer of UV protection paint or Glass Epoxy paint.

Outdoor installation not recommended.

HANDLING & INSTALLATION

Being rubber based material can take contours & bends easily hence easy to install & handle.

Plastic based material hard to handle and install. It has a tendency to bounce back hence leaves air gaps during installation.