

**HVAC Special**

# INSUflex By Supreme

Supreme introduces 'INSUflex', a high vapour resistant insulator for air-conditioning applications.

The Supreme Industries Ltd., founded in 1942, has pioneered many path-breaking products in the country and become a trendsetter in the plastics industry by introducing many advanced solutions for various applications and industries.

Supreme's insulation division



Atul Khanna, General Manager - Insulation Division (Thermal and Acoustic), Supreme Industries Ltd.

offers solutions in the areas of ducting insulation, underdeck insulation, pipe insulation, floor insulation, insulation joint sealing tapes, sound insulation, overdeck insulation and wall insulation.

The main goal of a good insulation material should be that of preventing water vapour from spreading through insulation, as water is an optimal heat conductor. INSUflex, by Supreme Industries, is a CFC-free, black, flexible, elastomeric closed-cell Nitrile Rubber thermal insulation that provides a highly efficient method of insulation and effectively controls condensation against both heat loss and heat gain.

The material is particularly suitable for insulating pipe works for condensation control. It can be used on chilled water pipe lines, refrigerated pipe-works, hot and cold water services and on sheets or rolls in air-conditioning ductworks.

INSUflex, has a very high

diffusion resistance factor to water vapour transmission  $\geq 7000$ , a low thermal conductivity and an excellent fire safe performance. It is suitable for temperature ranging from  $-550^{\circ}\text{C}$  to  $+1050^{\circ}\text{C}$ . The product does not depend on any additional outer thick skin or covering but is in-built with the insulation that extends through the full thickness.

The INSUflex range is resistant to corrosion, fungal and mildew growth and is therefore suitable for clean room applications. Insulation material with a low 'K' value equates to a high energy saving potential and thermal performance. Thermal conductivity is the main data used to technically calculate insulation thickness required to prevent condensation.

INSUflex provides good flexibility at low temperature and ensures a clean, dust-free, fast and easy installation. It protects pipes against corrosion by environmental

elements, has a low toxicity index, offers a minimal toxic fire hazard for safety assurance and rescue operations. Its good fire performance is ideal for buildings with high occupancy. INSUflex is a Class 1 product and has a unique closed-cell structure that provides an ideal vapour barrier resistance. It is also available in combinations of various wall thicknesses and diameters to suit G.I., copper and PVC pipes.

The product is applied to the surface using an adhesive compound. A protective layer of glass cloth, in two layers with an adhesive compound is then applied before providing a weather barrier, such as aluminium/G.I. cladding for outdoor application.

Supreme's other 'INSU' range products include 'INSUshield' which is a non-fibrous, fire retardant ('Class O' in Fire Propagation and 'Class 1' in Surface Spread of Flame), closed cell, tri dimensional

chemically cross-linked polyethylene XLPE foam. An ideal environment friendly insulation material, it is a perfect solution for insulation needs for ducts, roofs, pipes, vessels, etc. The divergent advantages of 'INSUshield' are ease of installation, low thermal conductivity and good moisture and vapour resistance preventing microbial growth and optimum condensation protection.

INSUreflector on the other hand is a radiant heat reflective insulation material made of polyethylene air bubble film (ABF) laminated with aluminum foil on one or both sides. It is a low e-reflective insulation material with a low mass to air ratio, which effectively blocks the radiant heat transfer. The bright surface of the aluminium foil, which encases the FR polyethylene air bubble material, reflects 96% - 99% infra-red radiation received by the surface of the heated slated roof.

Amongst others, there are four primary reasons why Supreme's Thermal Insulation Division is a choice of discerning customers seeking superior insulation solutions: A methodical, systematic and stringent approach to quality ensures all their products are not only world-class but also durable. They adhere to international quality standards while manufacturing their products. ISO 9001:2000 and ISO 14001 certifications and NABL Accreditation for their various plants is a testimony to their serious approach to quality.

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