

Supreme®
People who know plastics best

Ducting Insulation

Piping Insulation

**The ideal material to maintain
the ideal temperature**



Supreme Always Value Efficient

INSUshield®

[Formerly SIL-XL-C]

Class 'O' in fire propagation
Class 'I' in surface spread of flame
as per BS 476 Part 6 & Part 7

INSUshield (Formerly SIL-XL-C)

'INSUshield' is a non-fibrous, fire retardant, closed cell, tri-dimensional chemically crosslinked polyethylene foam. Conforms to 'Class O' for Fire Propagation and 'Class 1' for Surface Spread of Flame. It is an ideal environment friendly material, with a perfect solution for all your thermal insulation needs.

Features & Benefits

- 'Class O' in fire propagation and 'Class 1' in surface spread of flame
- More than 90% closed cell - Negligible water/ moisture absorption
- Wide operating temperature range from -40°C to +115°C
- Low and stable 'K' value
- Chemically inert
- Resistant to growth of fungi and vermin
- Non-fibrous & non-toxic - Non-irritant. No risk of airborne fibers contaminating indoor air quality
- Non-carcinogenic. Environment & user friendly
- Weather resistant and shock proof
- Ease of use and maintenance free
- Emits non-toxic smoke

Technical Specifications

Property	INSUshield Typical Values			Test Method
Material description	Fire retardant, closed cell, chemically crosslinked polyethylene			
Material form	Rolls, sheets and tubing			
Application	Thermal & Acoustic Insulation			
Area of applications	A/c Humidification ducts, Spandrel insulation, Underdeck, Hot & cold water pipelines & acoustic flooring			
Operating temperature	-40° C to +115° C			
Thermal stability	Less than 5% shrinkage at 90° C for 24 hours			
Colour	Grey			
Nominal density (Kg/m³)	33 ± 3kg/m³			BS 4370 Part 1
Thermal conductivity (W/m° K)	Mean Temperature (°C)	W/m°K	K Cal/hr m°C	IS:3346 / 1980
	0° C	0.0318	0.0273	
	23° C	0.0328	0.0282	
	46° C	0.0383	0.0329	
Water absorption	<2 %			ASTM D 1056-98
Water vapour permeance (28 days)	<6X10 ⁻³ ng/Pa m s			ASTM E-96
Water vapour transmission				
(7 Days)	Negligible			
(28 Days)	<1100 µg / m²s			
Water vapour resistance factor (μ)	Plain	> 11000		DIN 52615
	Aluminium foil face one side	> 14000		
Tensile strength (N/m²)	Min. 25			BS 4370 Part 2
Dimensional stability (RH-60%, temp 35° C for 24 hrs.)	No visible changes observed			BS 4370 Part 1
Volume percentage of closed cell	>90%			BS 4370 Part 2
Oxygen index, %	29 - 34			ASTM D 2863
Fire characteristic	a) Surface spread of flame (For both plain and foil faced material)	Class 1		BS 476 Part 7
	b) Fire propagation (for aluminium foil faced material only)	Class 0		BS 476 Part 6
Resistance to chemicals (for both mild acidic & alkaline)	No effect			ASTM C 543
Sound transmission class (9 mm INSUshield laminated with 12 mm gypsum board)	40dB			IS:9301 / ISO 140 / ASTM E 413

Applications

- AC / Humidification Duct insulation
- Under deck insulation
- Pipelines
- Acoustic flooring etc.

Available in

- Sheet form, roll form and pre-formed pipe coverings
- Plain material available in thickness of 3 mm to 13 mm in single layer with 1250 mm width. Over 13 mm thickness in 1220 mm width and laminated material is available in 1220 mm width from 3 mm and above
- Available with various factory applied laminations such as MET PET film, aluminium foil, UV barrier film, adhesive backed with peel off paper etc., for diverse applications
- INSUshield is available in various widths and thickness and also in preformed tubing profile 1/4" to 8" Pipe ID, to match the requirement of Copper, M.S., G.I. and Plastic pipes

Connect with us

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