

# Freezing Insulation Solutions

**INPUF**®

RIGID POLYURETHANE FOAM

DESIGN COMFORT INSULATION



## RIGID POLYURETHANE FOAM SLAB AND PIPE INSULATION

- Rigid Polyurethane foam is used as Building Thermal Insulation in under-deck & over-deck insulation, wall insulation, roof insulation, floor insulation, false ceiling, pipe insulation, etc.
- It is environment friendly (CFC and HCFC Free, Zero ODP, Low GWP) closed cell rigid foam insulation. Its cellular structure has over 90% closed cells.



### Facings

Rigid polyurethane foam thermal insulation products are used unfaced / faced with flexible FSK, Aluminium Foil, Kraft Paper, Bituminous Kraft Paper, Fibre Glass Tissue, Reinforced Aluminium Paper etc.

## STANDARD DIMENSIONS

| Product | Width / ID    | Thickness       | Length |
|---------|---------------|-----------------|--------|
| Slabs   | 0.5 m to 1 m  | 15 mm to 300 mm | 1 m    |
| Pipes   | 0.5" to 50" * | 25 mm to 100 mm | 1 m    |

\* Above 8" diameter pipe insulation available in 4-6 segments & higher thickness pipes available in multi-layers.

## TECHNICAL DATA

|  |   |
|--|---|
| Chemical Composition                     | Rigid polyurethane foam (Thermosetting Polymer composed of closed cell structure with urethane links) based on Methylene Di-Phenyl Di-Isocyanate (MDI), Polyol and low thermal conductivity blowing agent chemical systems. |
| Service Temperature Range                | -40°C to 110°C  |
| Overall Foam Density                     | 36 Kg/m <sup>3</sup> ±10%   |
| Initial Thermal Conductivity (K-Value)   | 0.023 W/m <sup>2</sup> K (Max) at 10 deg. Mean Temp.  |
| Compressive Strength At 10% Deformation  | 115 KN/m <sup>2</sup> (Min)   |
| Water Vapour Transmission (Permeability) | 5.5 ng/pa.s.m (Max)   |
| Closed Cell Content                      | 90% (Min)   |
| Horizontal Burning                       | 125 mm (Max)  |
| Dimensional Stability                    | 2% at 100°C (Max.)  |

Finished Product Confirms To IS:12436, PUR-1 Grade Specification.

## ENVIRONMENTAL AND BIOLOGICAL COMPLIANCE

|   |   |
|---|---|
| Environmental & Green Building Compliance | CFC & HCFC free, Zero ODP, Low GWP, Asbestos & odour free, Corrosion and chemical resistant |
| Biological Compliance                     | Fungi & Bacteria resistant  |

## APPLICATIONS

- Pipe & Tank Insulation
- Cold Storages & Cold Rooms
- Shopping Malls
- Under Deck & Over Deck Insulation
- Refrigerated Truck & Transportation
- Auditoriums
- Roof & Floor Insulation
- Automobiles
- Theatres
- Wall & Ceiling Insulation
- Industries
- Sport Clubs
- Residential & Commercial Insulation
- Food Processing Units

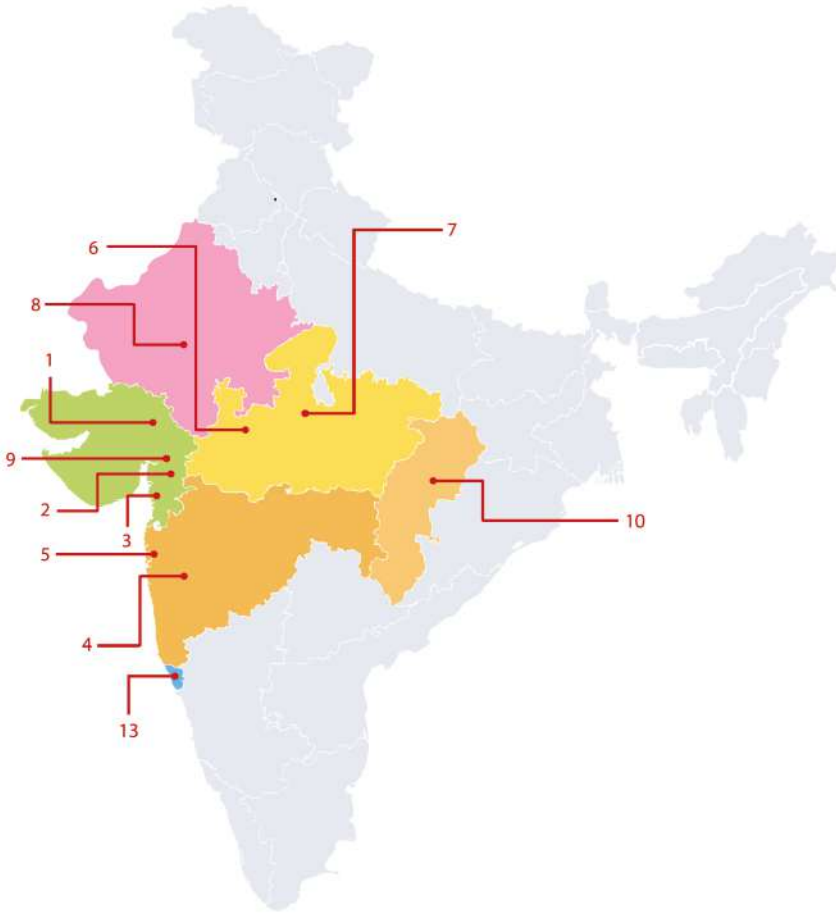
## THERMAL RESISTANCE (R-VALUE)

| Thickness (mm) | R-Value (m <sup>2</sup> .K/W) | R-Value (hr*ft <sup>2</sup> *°F/Btu) |
|----------------|-------------------------------|--------------------------------------|
| 25             | 1.08                          | 6.17                                 |
| 30             | 1.3                           | 7.40                                 |
| 35             | 1.52                          | 8.64                                 |
| 40             | 1.73                          | 9.87                                 |
| 45             | 1.95                          | 11.10                                |
| 50             | 2.17                          | 12.34                                |
| 75             | 3.26                          | 18.50                                |
| 100            | 4.34                          | 24.64                                |



## FEATURES

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Light Weight</li> <li>• High Compressive And Flexural Strength</li> <li>• Imperishable</li> <li>• Green Building Requirement Compliance</li> <li>• CFC And HCFC Free</li> <li>• Lower U-value</li> <li>• Higher R-value</li> </ul> | <ul style="list-style-type: none"> <li>• Lower K-value</li> <li>• Zero ODP</li> <li>• Low GWP</li> <li>• Low Water Vapour Transmission</li> <li>• No Fungus Growth</li> <li>• Uniform Density</li> <li>• Closed Cell Structure</li> <li>• Excellent Thermal And Dimensional Stability</li> </ul> | <ul style="list-style-type: none"> <li>• No Corrosion</li> <li>• Space Saving</li> <li>• Low Handling Cost</li> <li>• Low Installation Time Required</li> <li>• Lower Thermal Conductivity Of PUF Insulation</li> <li>• High Energy Cost Savings</li> </ul> |
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