



## SOLUTIONS FOR COLD ROOM INSULATION USING POLYURETHANE FOAM



**Omkar Puf Insulation Pvt. Ltd.**



# PUF INSULATED COLD STORAGE PANELS

Depending on the size and use of cold room, cold room can be broadly classified as **Walk In Cold Room** and **Warehouse Cold Storages**.

**Walk In Cold Rooms** are smaller in size compared to large ware house cold stores. Due to small size of rooms, insulated floors are built strong enough to allow use of hand carts. These rooms are used in super markets, hotels, supply chains etc.

For quick freezing and chilling application, **Blast Freezers and Blast Chillers** are used where temperature of the room drops below **-40 Degree Celsius** from room temperature in span of few hours.

**PUF INSULATED SANDWICH PANELS** are designed for a fast and easy cold room assembly. OPIPL cold room sandwich panel comprises of two steel skin (Pre-painted Galvanized Iron Sheet – PPGI) that are bonded with high pressure injected polyurethane foam with tongue and groove joint system complete with cam-locking mechanism.

## CAM LOCK SYSTEM

A cam lock is a device that is embedded at precise locations alongside the edges of our insulated panel. The cam lock fasteners come in pairs; a male cam lock latch and a female cam lock receptacle.

Insulated panels are joined together in required lengths to assemble partition walls, ceilings and floor. It is well organized Tongue & Groove system which utilizes the Cam locks to achieve superior tightness and insulation. Panels slip into place allowing for easy and rapid installation, whilst improving structural strength and thermal efficiency and also offering a clean, smooth aesthetic look.

These give us the following **advantages in cold room applications**:

- ▶ Rigidity and good weatherproofing.
- ▶ Better transportability.
- ▶ More cold storage volume for a given space.
- ▶ Ease and speed of cold storage unit installation.

## ADVANTAGES / BENEFITS :

- ▶ Thin walls
- ▶ Optimum insulation without thermal bridges
- ▶ Components can be disassembled and reused
- ▶ Outstanding load bearing capacity
- ▶ Hygienic for food preservation
- ▶ Odorless
- ▶ Long life and durable
- ▶ Resistant to most oils , chemicals and solvents
- ▶ Fire resistant.

## FACINGS :

- ▶ GI pre coated
- ▶ SS
- ▶ Bituminous paper
- ▶ Ply
- ▶ Aluminium foil paper
- ▶ Kraft paper
- ▶ FRP sheets.
- ▶ Aluminium etc.

For cost effective cold storages we can supply puf insulated sandwich panels we can also provide -

- ▶ Sandwich panels with one side metal and other side kraft paper.
- ▶ Sandwich panels with both side kraft paper.



## PRODUCT DETAILS :

- ▶ Length – up to 6mtr.
- ▶ Width – up to 1.2mtr
- ▶ Thickness- 50mm to 150mm.
- ▶ Tongue and groove with specially designed cam locks provided.
- ▶ Density – 40kg/m<sup>3</sup>

**Note - 25mm to 40mm thickness available up to certain length.**

**Cam locks are available for thickness 50mm and above.**

**Available in PUR and PIR.**

## REQUIREMENTS OF COLD ROOMS

- ▶ Cold room & blast freezers for food
- ▶ Marine
- ▶ Frozen food
- ▶ Floriculture
- ▶ Food processing industry
- ▶ Hotels & restaurants
- ▶ Industries





## COLD STORAGE FLOORING

Polyurethane foam is used in cold storages to insulate the floor as it outperforms most other insulation materials in supporting the imposed load and maintaining insulation performance.

With very good compressive strength, PUF insulated flooring provides adequate support to the slab by limiting its deflection. PUF slabs can safely be used at continuous operating temperature of minimum -50 degree Celsius without any adverse effect on its properties.

In case of **Walk In Cold Rooms**, sandwich panels comprising of one side **Marine Ply** and other side **GI sheet** that are bonded with high pressure injected polyurethane foam with tongue and groove joint system can be used so that the load is uniformly distributed and insulation material i.e. PUF is protected against any impact.

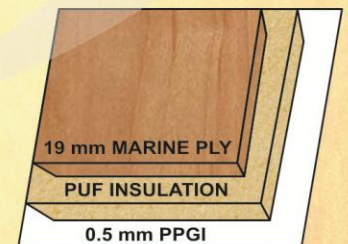
For large refrigerated ware houses, a concrete reinforcement is required over **PUF Slabs** or **Bituminised PUF Sheets** with tongue and groove for additional strength. In case of very low operating temperatures more than one layer of puf slabs can be used to avoid losses.



PLAIN PUF SHEETS



BITUMINISED PUF PANEL  
WITH TONGUE AND GROOVE



PUF PANELS WITH  
MARINE PLY



# PUF INSULATED COLD ROOM DOORS

## HINGED DOOR

OPIPL Hinged doors for both freezer and cool store applications. OPIPL Doors Team offers a top quality cold room and freezer doors at the best price, with a selection of the most competitive products thanks to their efficiency, quality and innovation.

The door construction and fittings are specially designed for the food industry and fulfill the environmental requirements of that industry as well as being able to withstand rough treatment. Rooms with a temperature range between 0°C and -50°C are best locked with an OPIPL cold room door.

The door edges are constructed from resistant heavy gauge aluminium profiles. The door leaf panels are injected with high pressure polyurethane, leaf thickness up to 150mm, stainless steel finishes are available. The heaters prevent the formation of ice and help to constantly save energy. All doors have a smooth metal surface which can be easily and hygienically cleaned.



## SLIDING DOOR

In case of narrow spaces and if pedestrians and vehicles frequently access cold rooms, sliding cold room doors are the ideal solution OPIPL Team offers a top quality cold room and freezer sliding doors at the best price, with a selection of the most competitive products thanks to their efficiency, quality and innovation.

OPIPL System is professional in sliding door design and construction. OPIPL Single Sliding Door is used for personnel and material handling traffic where space restricts the use of swing doors or when installation space is only available on one side of the door opening (**corridors and loading platforms**).

Suitable for interior and exterior applications in coolers, freezers and food processing facilities. Unique range of sliding doors for chillier and freezer applications 0°C to -40°C. The door edges are constructed from resistant heavy gauge aluminium profiles. The door leaf panels are injected with high pressure polyurethane, leaf thickness upto 150mm, stainless steel finishes are available. The perfect insulation and sealing of the doors prevents the formation of ice and helps to constantly save energy. All doors have a smooth metal surface which can be easily and hygienically cleaned.



## FEATURES :

- Application** : Doors for chill room, freezer, or blast freezing temperature.
- Dimensions** : Standard dimension is 900x2100 mm (clear opening), all other dimensions are available upon customer request
- Temperature range** : Upto -50C°
- Door leaf** : Single leaf, Aluminium edges. Heated doorframe edges below 0C° using self regulating energy saving wires.
- Leaf thickness** : 90mm, 100mm, 125mm, 150mm.
- Insulation** : PUR-foam filled. **Density- 40kg/m3**
- Leaf surface** : P.P.G.I shade RAL 9002 with removable guard film, Stainless steel, Aluminium.

## DOOR TYPES :

- ▶ For Normal and Medium Temperature 0C° to +15C°  
Doors Type – 90 mm panel thickness
- ▶ For low Temperature -5C° to -25 C°  
Doors Type – 100 mm and 125 mm panel thickness
- ▶ For freezing Temperature -25C° to -40 C°  
Doors Type – 150 mm panel thickness

## ADVANTAGES :

- ▶ Strongest door leaf edging
- ▶ Energy savings at freezer doors using heaters
- ▶ No deformations thanks to extra durability
- ▶ Very competitive price
- ▶ Short lead time



# PUF INSULATED SANDWICH PANELS FOR REFRIGERATED VEHICLES

To meet the market's requirements for efficient temperature control without skimping on quality, OPIPL Insulated Van Panels, fit snugly around the interior of the load space to create a lightweight conversion that can increase payload capabilities without sacrificing temperature performance.

By creating exquisite design we have produced an extremely temperature efficient insulator which has achieved a superior thermally efficient and smooth food-safe lining.

The internal lining has been created by bonding a layer of insulating foam to a layer of high specification plywood or any other required finished surfaces. This gives a strong inner surface, being easy to clean; it is also extremely durable and therefore can still look good for many years.

To withstand the constant loading and unloading process involved in daily distribution operations, we have developed a very strong insulated floor, which is able to reduce the ingress of heat. OPIPL can be relied upon to insulate your van so you can transport your goods in a safe and true temperature-controlled environment.

## PRODUCT DETAILS :

- ▶ Length – Up To 6mtr.
- ▶ Width – Up To 1.2mtr
- ▶ Thickness - 25mm To 150mm.
- ▶ Tongue and groove with specially designed cam locks provided.
- ▶ Density – 40kg/m<sup>3</sup>

## FACING :

- ▶ GI Pre Coated
- ▶ SS
- ▶ Bituminous Paper
- ▶ Aluminium Foil Paper
- ▶ Kraft Paper
- ▶ Ply
- ▶ FRP Sheets.
- ▶ Aluminium Etc.

**NOTE - 25MM TO 40MM THICKNESS  
AVAILABLE UP TO CERTAIN LENGTH.**

**AVAILABLE IN PUR AND PIR.**

## ADVANTAGES / BENEFITS :

- ▶ Thin Walls
- ▶ Optimum Insulation Without Thermal Bridges
- ▶ Components Can Be Disassembled And Reused
- ▶ Outstanding Load Bearing Capacity
- ▶ Hygenic For Food Preservation
- ▶ Odorless
- ▶ Long Life And Durable
- ▶ Resistant To Most Oils, Chemicals And Solvents
- ▶ Fire Resistant.



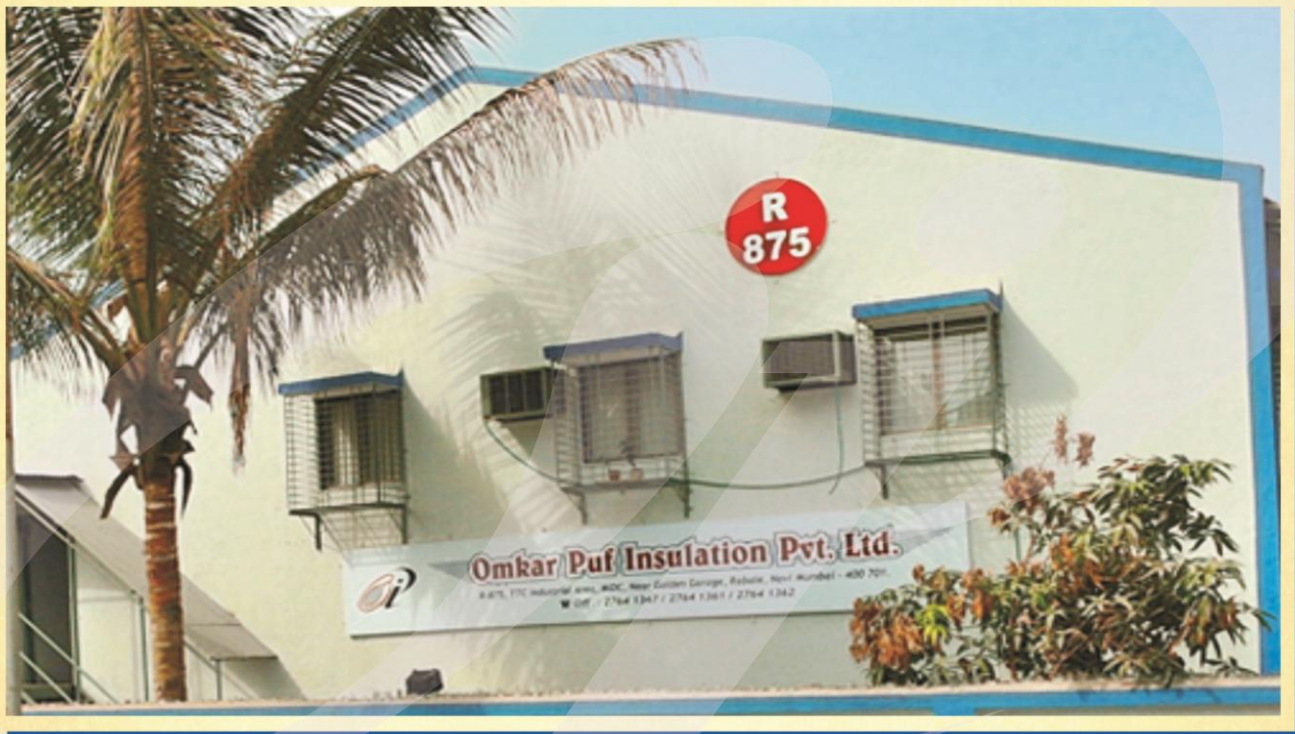


OMKAR PUF INSULATION PVT. LTD. is one of the most eminent manufacturers and suppliers of RIGID POLYURETHANE FOAM for VARIOUS INSULATION REQUIREMENTS. We have developed a set of high performing products and achieved incomparable market presence, specifically for matchless quality. The incorporation of high-end technologies and procedures ensure prolonged subsistence and durability of every product.

We manufacture custom designed RIGID POLYURETHANE FOAM INSULATION MATERIAL that perfectly matches the demands of our clients. Our equipment feature modern designs, premier quality and innovative technology, and are highly in demand in the market.

We have a well structured logistics, along with our expertise that helps us deliver. the most appreciated products in the market. With our quality standards, we have created a benchmark in the industry.

Our trustworthiness and professionalism have made us stalwarts in the industry, which has helped us win a huge client base with each passing year. We manufacture the topmost quality of products through our highly organized manufacturing facility. Our experienced and well qualified personnel have enabled us succeed in the market with their expertise and assistance. Backed by our efficient personnel, we have been able to carve a niche for ourselves in this highly competitive market segment.



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