

**COOLING
IS IN OUR
DNA**



FREEZE IT !

COLD ROOMS / CLEAN ROOMS

Cold Rooms: Polfrost mission for ever changing demands

Store your perishable products for longer periods, and in larger quantities with our Cold Rooms. These can be customized for specific needs. These Cold Rooms are well insulated, highly efficient and meticulously designed to cater to a wide temperature range from +15 and -25 °C. Talk to us about **any of your temperature requirements** and we promise to deliver global solutions at local prices.



BAKERIES



FLORICULTURE & HORTICULTURE



PHARMACEUTICAL COLD STORAGE



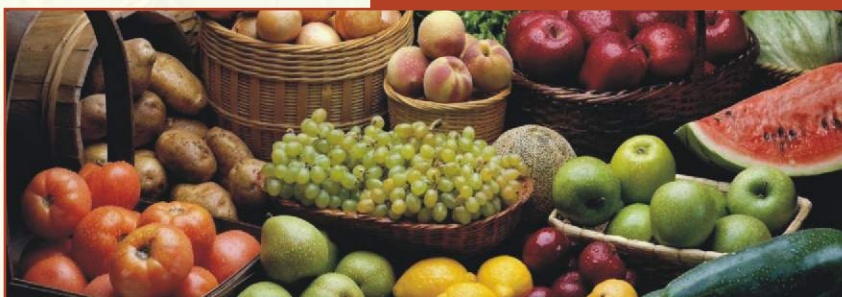
LABS & BLOOD BANKS



FISH COLD STORAGE AND FREEZING



FRUIT & VEGETABLE COLD STORAGE



Cold Room Description:

Polprost branded Cold Rooms are indigenous in design. Turnkey Cool and Cold Room Solutions, right from Conceptualization, Heat-Load Calculations, Design of Structural Panels as well as Thermal Control Systems and CA systems, Manufacturing to Commissioning and Installation.

In house production of panels, complete from Decoiling Units to CNC Turret Press and Bends. Polprost Cold Room Panels are well designed and have a good strength to weight ratio.

Complete sealing of air gaps in the panel joining system by use of tongue and groove interlocking system, doubly ensured air tightness by cam locking system.

Easy and quick assembling and disassembling of the structure PUF panels due to the Cam Locking system, establishing complete Modular Cold Rooms and Pre-Fab structural requirements.

Imported PUF forming chemicals from Reputed International Brands, implying uniform PU density. This helps in maintaining uniform temperature throughout the Cold Room zones minimizing the possibilities of temperature leaks.

PU Panels to suit every application including Cleanrooms, Cold Rooms, CA Chambers, Food and Beverage Storage Applications, Long Storage Applications and Fruit Ripening Chambers.

Design and Construction of Walk-In Cold Rooms / Cool Rooms / Chambers.

Exhaustive range of Door Systems, such as Flush

Doors, Swing Doors, Sliding Doors – Manual and Automated, Commercial Doors, Temperature Retardant Glass Doors, Fire Doors, Hangar Doors, Acoustic Doors, Double Leaf Hinged and Sliding Doors, etc.

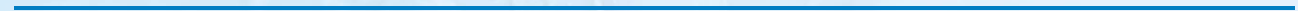
Thermal Breaks at door sections reducing Thermal Losses at junctions as well as via conduction, using High grade FRP sections.

Specialized Door systems, customized to suit customer requirements, with Reputed International Brands' door hardware.

Walk-able ceilings and Custom made PU floorings complete with Tar felt and in-situ construction.

Wide variety of skins to choose from SS, GIPP (Galvanized Iron Pre-Painted), GIPC (Galvanized Iron Powder Coated), with different choice of thicknesses from 0.45mm to 1.2mm. Aluminum and PVC Coving to suit the corners and restrict contamination. **PIR Panels for fire retarding structures and Rockwool Panels manufactured on request.**

Special skins available on request such as PVC Coated Steels, for specialized applications like Medical sector cleanrooms, Cleanrooms, Operation Theatres, CA Chambers, etc.



Polfrost Modular Cold Room Range:

- **Temperature Range:**

- ◆ +15°C to -70°C

- **Skin thickness:**

- ◆ 0.45 to 1.2 mm

- **Skin material:**

- ◆ S.S.
S.S. 304 and 316
- ◆ GIPP (Galvanized Iron Pre Painted)
- ◆ GIPC (Galvanized Iron Powder Coated)
- ◆ PVC Coated Steel for Specialized medical and Clean room Applications

- **Insulating material:**

- ◆ PUF (Poly Urethane Foam) thickness:
40 mm
60 mm
80 mm
100 mm
120 mm
150 mm

- **Controls: PID / POLFROST PLC**

- ◆ PUR (Polyisocyanurate or Rigid Polyurethane)

- ◆ Rockwool

- ◆ Glasswool

- ◆ Glass Panels

- ◆ LU Glass

- **Joining mechanism:**

- ◆ Cam-locks

- ◆ Tongue and Groove sections for cleanroom purpose

- **Applications:**

- ◆ Cold Rooms

- ◆ Clean Rooms

- ◆ Operation Theatres

- ◆ CA Chambers

- ◆ Environmental Chambers

- ◆ Stability Chambers

- ◆ Prefab Constructions

- ◆ Portacabins

- ◆ Glass Partitions

- ◆ Fire Doors

- ◆ Hot Rooms

- ◆ CA Doors

- ◆ PortaHouses

Polfrost special applications Doors are available in the following varieties:

- **Type:**

- ◆ Hinged Door

- ◆ Flush Door

- ◆ Sliding Door (Manual and Motorised)

- ◆ CA Doors

- ◆ Clean Room Doors

- ◆ Double Leaf Hinged Doors

- ◆ Acoustic Doors

- ◆ Temperature Retardant Glass Doors

- ◆ Roll Up Doors

- **Accessories:**

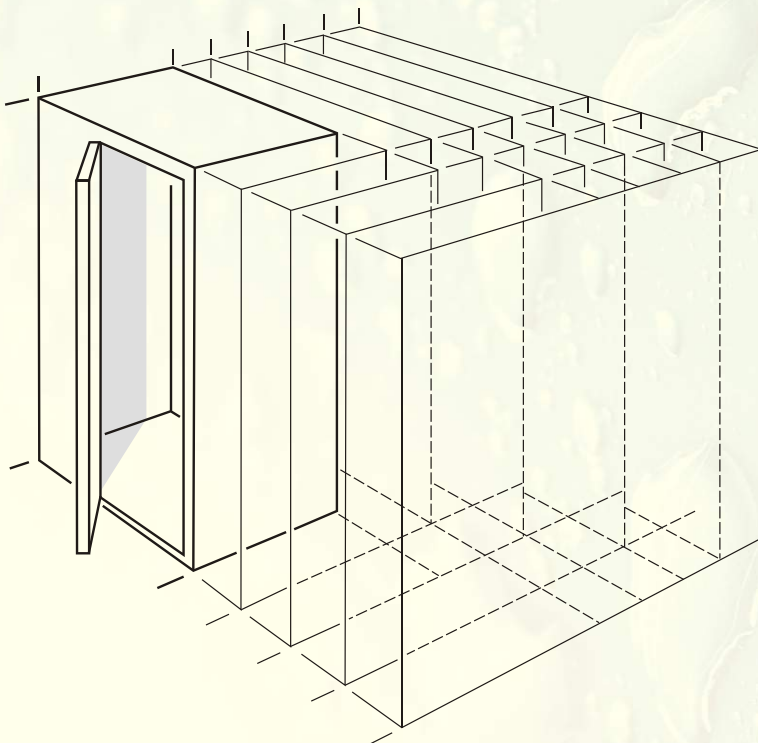
As Per Application, Recommendation & Special needs.

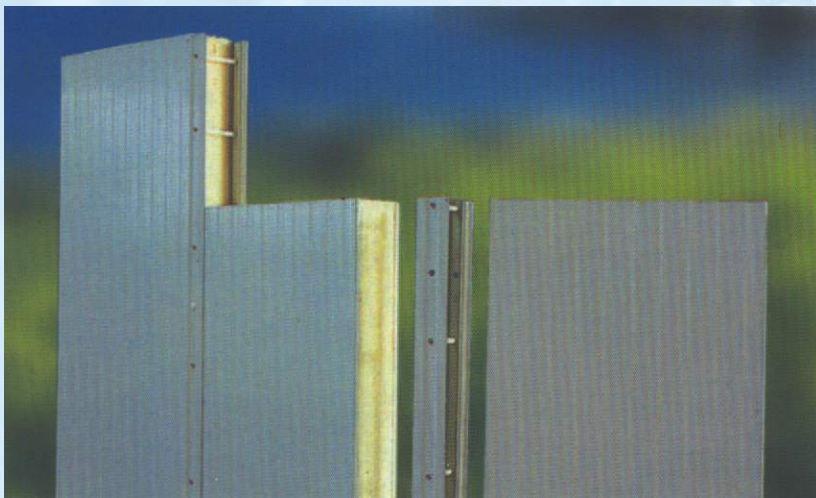
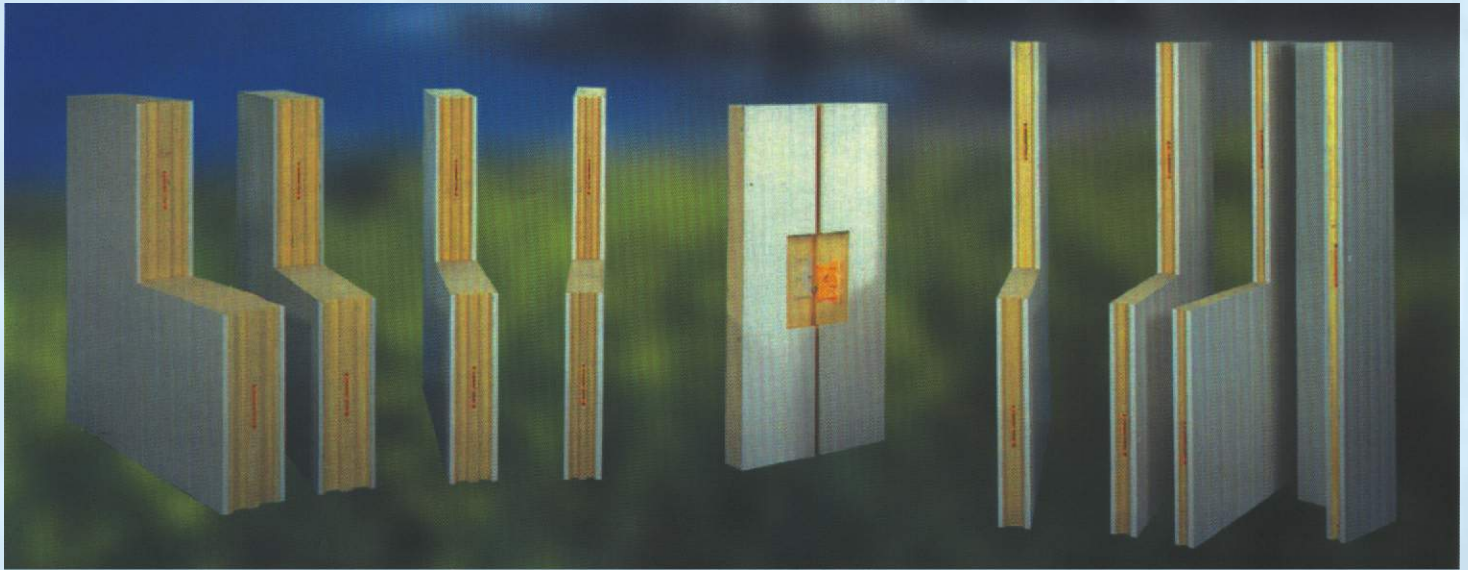
- **Energy savers:**

- ◆ Thermal Breaks

- ◆ Door Heaters

- ◆ Pressure Relief Valves





Prefabricated panels, sandwich type, available in standard, modular, lengths starting from 200 mm upto 1500 mm, heights range from 2000 mm to 6000 mm. The panel consists of two outer skins with an inner insulated centre made of self-extinguishing polyurethane resins complying with ASTM D 1692/58-DIN4102B2 specifications, high insulation coefficient (standard density: 40kg/cu.m.) and high pressure injection techniques. Finishes: self-extinguishing fiberglass, stainless steel AISI 304, galvanised plate, galvanised - prepainted and galvanised - plasticised sheet metal. Panel's range of thicknesses: from 60mm to 200 mm.

PHYSICAL PROPERTIES	UNIT	AVERAGE MEASURED VALUE	PHYSICAL PROPERTIES
DENSITY OF FORM	KG/M ³	40 ± 5%	DIN 53 420
THERMAL CONDUCTIVITY	BTU/I ² /F°INCH	13 ± 2%	ASTMC 177
THERMAL CONDUCTIVITY	W/KM	0.022	DIN 52612
CLOSED CELLS	%	94	ISO DP 2246
COMPRESSIVE STRENGTH	KG/CM ²	2.1	ASTM D 1621
COMPRESSIVE STRENGTH	N/MM ²	0.20	DIN 53 421
COMPRESSION	%	10	DIN 53 421
FLEXURAL STRENGTH	N/MM	0.30	DIN 53 432
BENDING	MM	10	DIN 53 423
FLAMMABILITY (NO DRIPPING OR MELTING)			ASTM 16 92-74 CLASS SE
EXTENT OF BURN		SELF EXTINGUISHING	BS - 4735
DIMENSIONAL STABILITY C	%	10	LENGTH & WIDTH TESTED AT - 180°C TO 100°C FOR 48 HR. AT 90% RELATIVE HUMIDITY
AT - 25°C	%	.1%	
+ 38°C	%	.1%	
+ 90°C	%	.4%	
TEMPERATURE RANGE	°C	-180°C TO 100°C	
WATER ABSORPTION	%	2%	AT MAX 98% RH
WATER VAPOUR PERMEABILITY	ng/PASM	5.5	S - 11239

Actual Site Photographs:





REFRIGERATED LAB EQUIPMENT:

- Freezers -20°C to -86°C for Labs – Pathology, Medicine, Life Science, Pharma.
- Circulating Baths - Cryostat
- Blood Bank Cold Chain : -14°C, -30°C, -45°C to -86°C.
- Platelet Agitator Incubator, Cryobath, Centrifuge, Bag sealer, Blood Bag Collector, Vaccine carrier.

COOL & COLD ROOMS:

- +22°C to + 4°C, -10°C, -25°C, -45°C, -70°C. Digital Microprocessor / PLC Controls.

INDUSTRIAL REFRIGERATION:

- Chillers : 5 to 5000 Liters; 22°C to -70°C; Process & Industrial Circulation, Digital Microprocessor / PLC Controls.
- Unit Coolers, Condensing Units.
- PUF / Insulation Panels.
- Door Systems.
- Tailor made refrigeration & HVAC products.

Contact us:



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