COLDSPAN

INSULATED PANELS

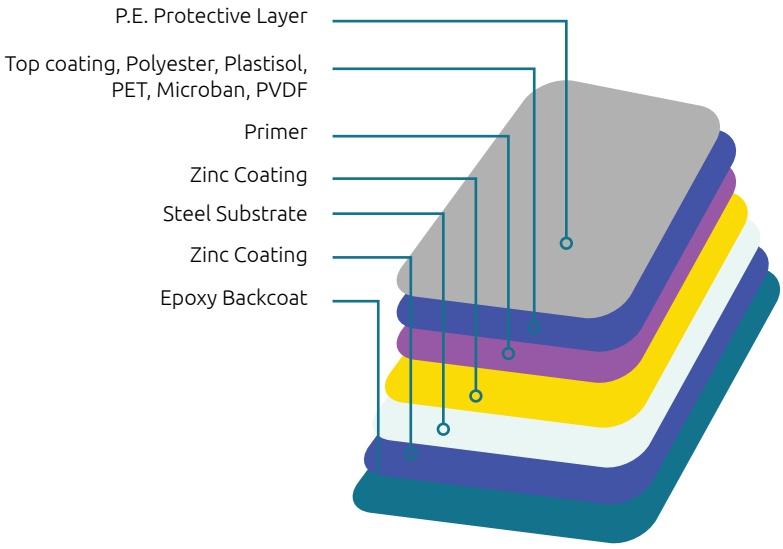
www.coldspanglobal.com

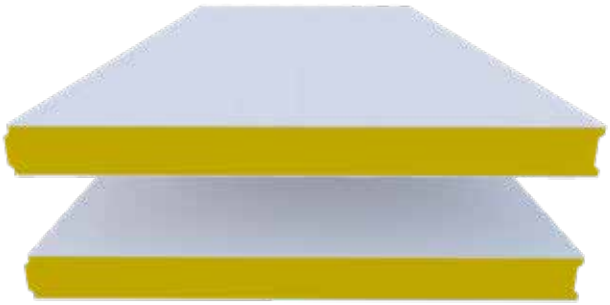
50mm → 100mm → 150mm → 200mm

Our panels, available in 50mm to 200mm thicknesses, offer up to 99% water resistance and a closed-cell structure over 97%. The tongue-and-groove system ensures easy installation, making them ideal for refrigeration needs—especially in the agro-food sector—for reliable transport and storage of chilled, frozen, and deep-frozen products. Choose from seven thicknesses, two exterior and two interior finish options (standard or flat), and a range of colors to suit your project.

MATERIAL SPECIFICATION

ColdTech uses a variety of cladding materials for its insulated panels, including FM Approved pre-painted galvanized steel, PVC-coated galvanized steel, stainless steel, and stucco-embossed or pre-painted aluminum. The "U"-shaped edge design ensures strong adhesion with polyurethane, while shallow ribbing enhances strength and stability. Floor panels are built to support uniform loads up to 2.5 tons/m².





FEATURES

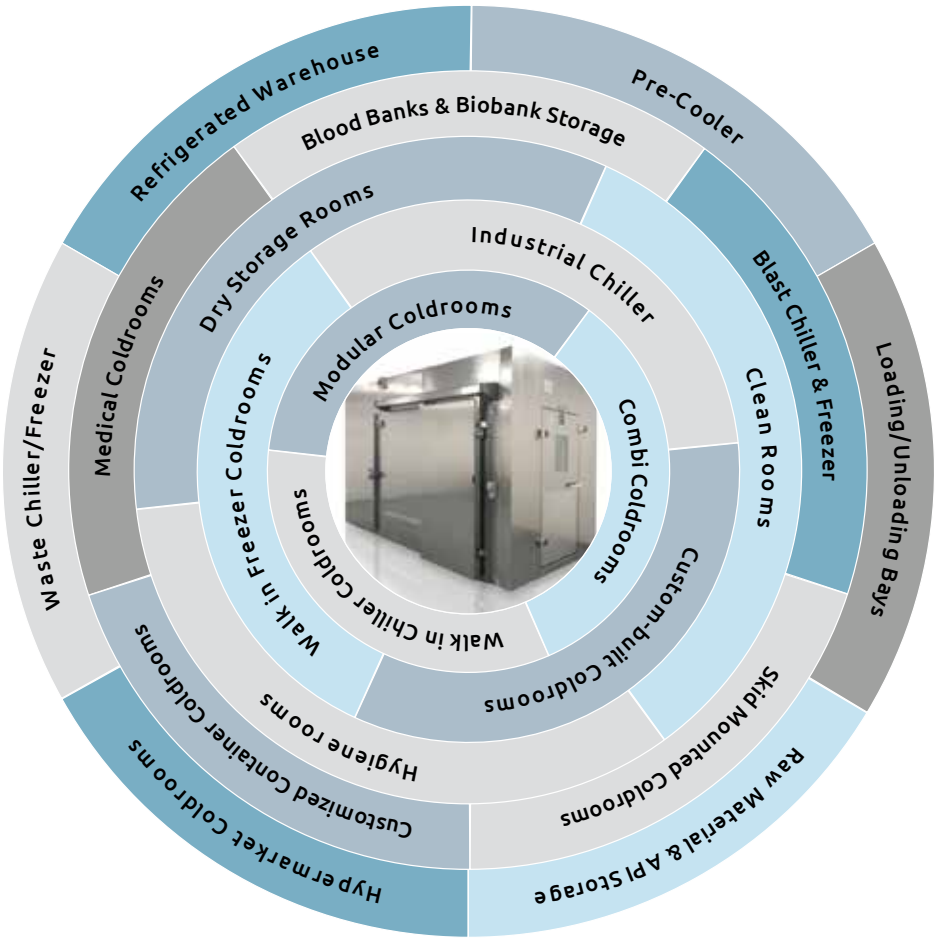
- Superior aesthetics
- Excellent thermal insulation
- Strong mechanical durability
- Outstanding dimensional stability
- Impermeable to water vapour
- Highly versatile for customized configurations
- Fast installation and low maintenance
- Easily removable when needed
- Custom-made to minimize material waste
- Resistant to harsh and aggressive environments

FM GLOBAL COMPLIANCE

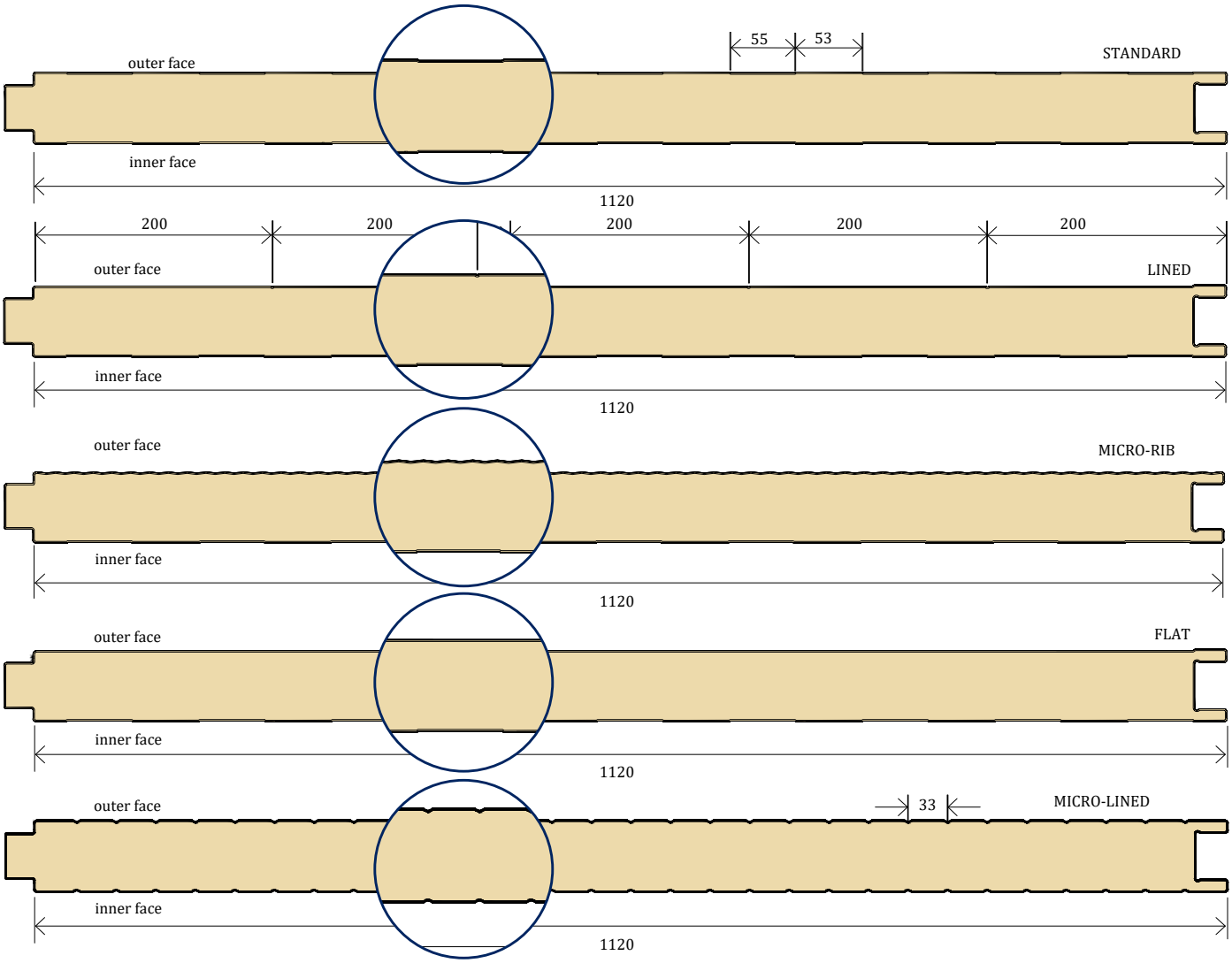
ColdTech's FM Approved Insulated Composite Panels for cold stores, partitions, and ceilings meet FM Standard 4880. With PIR insulation, they limit fire spread and fuel contribution, often removing the need for sprinklers. Backed by extensive R&D and testing, they offer top safety and performance in fire and hazard conditions.

FM APPROVED

COLD ROOM CAPABILITIES

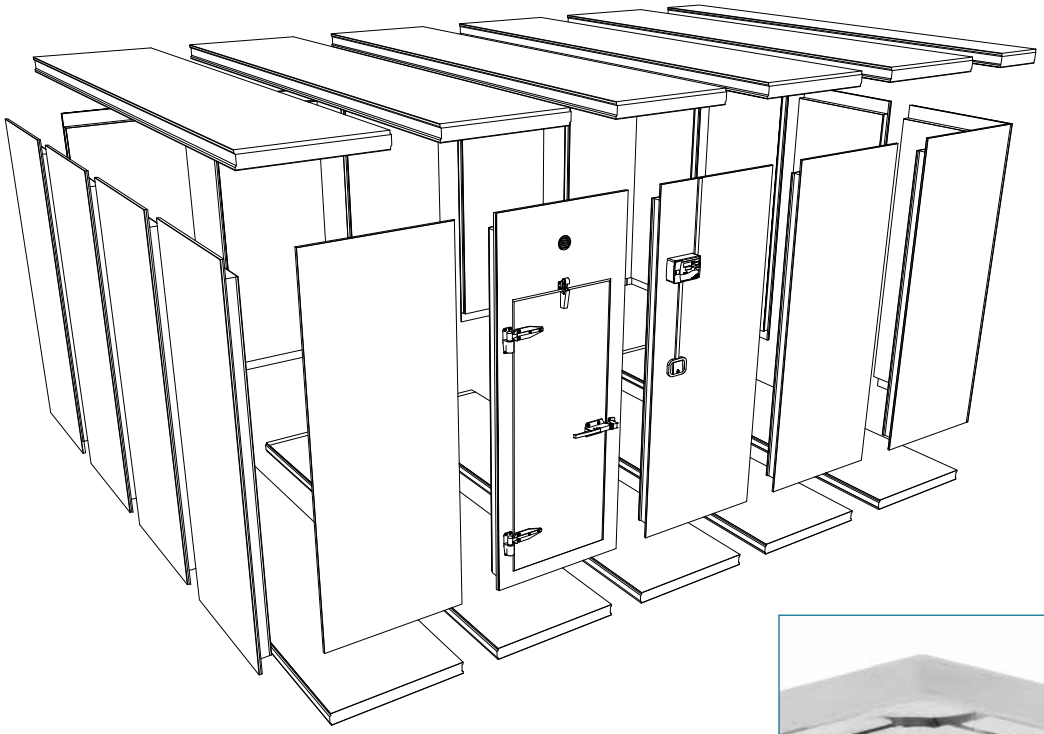


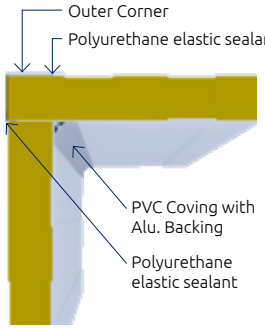
PROFILES

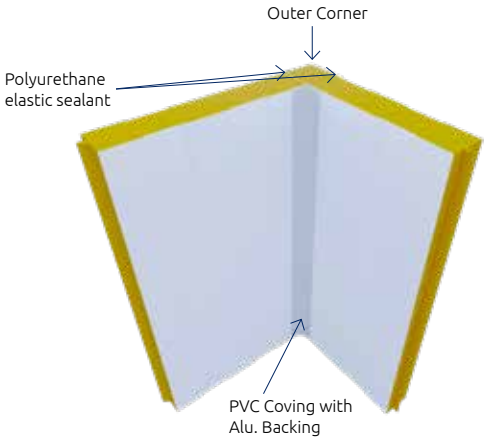

55
53
STANDARD
outer face
inner face
1120
200
200
200
200
200
LINED
outer face
inner face
1120
MICRO-RIB
outer face
inner face
1120
FLAT
outer face
inner face
1120
33
MICRO-LINED
outer face
inner face
1120

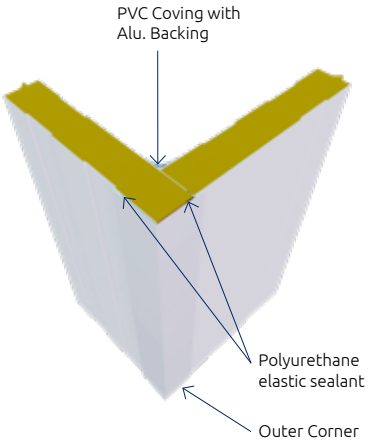
Slip Joint Panels

Slip Joint Insulated Panels are engineered for superior thermal performance and ease of installation in cold storage environments. Designed with a tongue-and-groove interlocking system, these panels ensure an airtight seal, minimizing thermal bridging and energy loss. Manufactured with high-quality PIR or PUR insulation cores and robust metal facings, these panels offer excellent thermal insulation, moisture resistance, and structural integrity. Ideal for walls, ceilings, and partitions in walk-in freezers, chillers, and temperature-controlled warehouses, slip joint panels provide a clean, hygienic, and low-maintenance solution for demanding cold storage requirements.



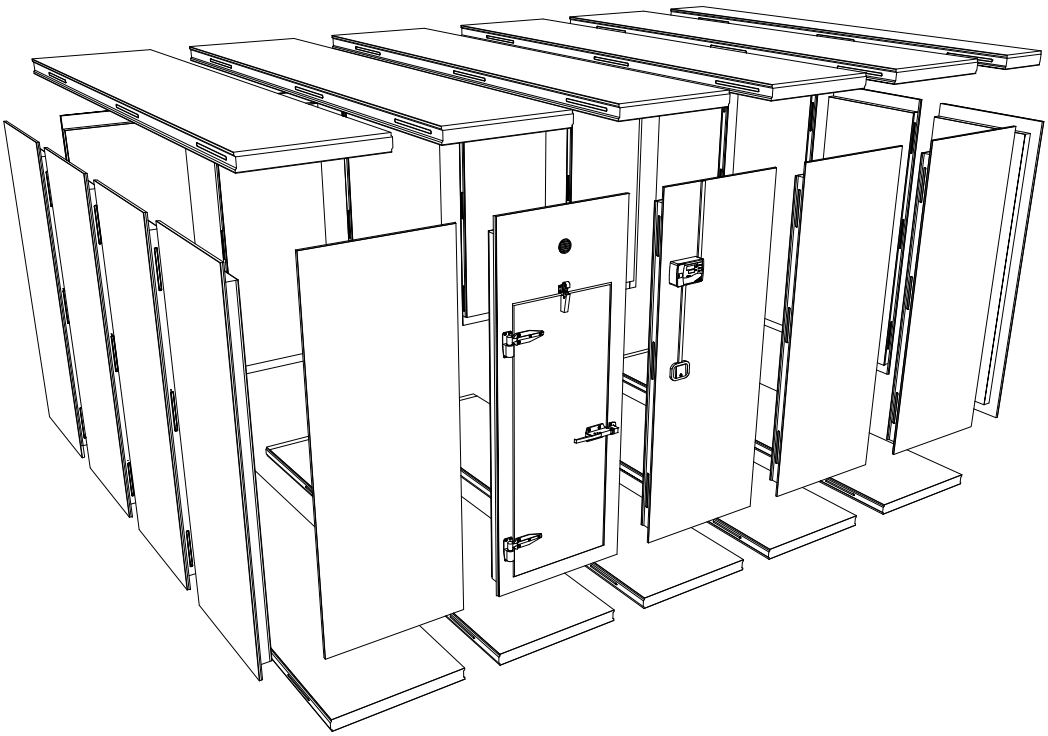


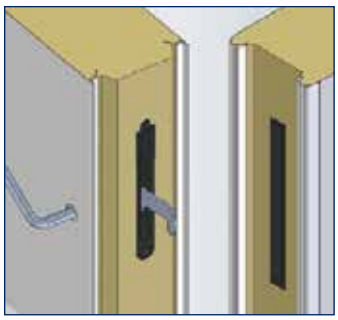




Camlock Panels

ColdTech's Camlock Insulated Panels are precision-engineered for quick installation and robust thermal performance in cold storage applications. Featuring a camlock mechanism with tongue-and-groove joints, these panels ensure an airtight and secure fit—ideal for walk-in cold rooms, freezer rooms, and cleanrooms. Manufactured using high-quality PIR or PUR insulation, the panels offer excellent thermal efficiency, fire resistance, and structural strength. With customizable thicknesses and finishes, ColdTech's camlock panels are a reliable choice for maintaining strict temperature control and hygiene in food, pharmaceutical, and industrial environments.

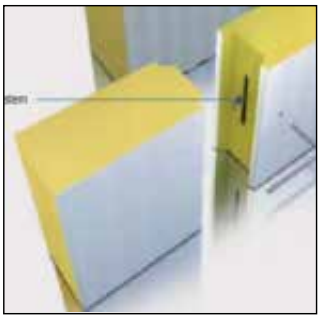




Corner Coving
Wall to Ceiling

Corner Coving
Floor to wall

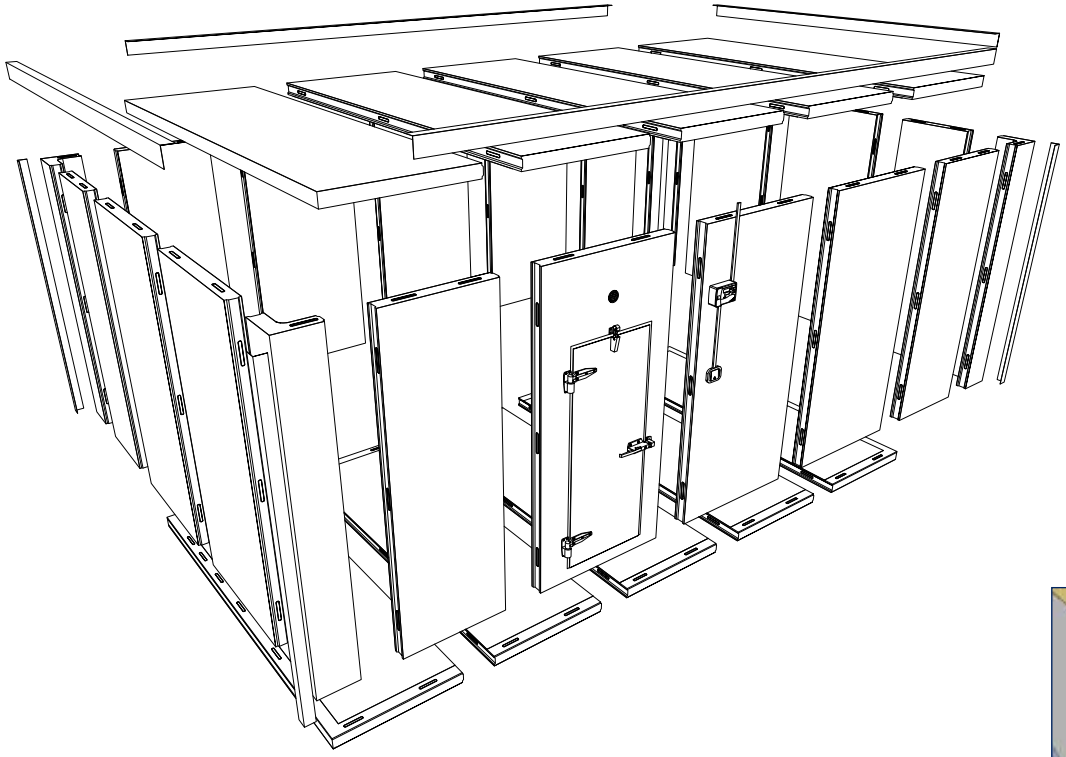
PVC Coving with Alu.
Backing

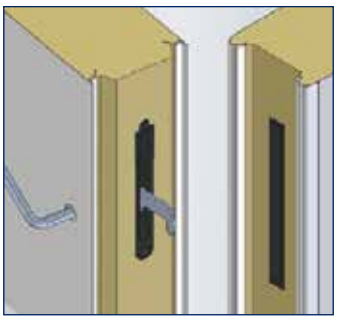


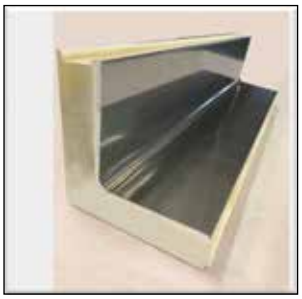
Wall to Wall Cam
Locking Arrangement

Modular Panels

ColdTech's Modular Insulated Panels are designed for flexibility, fast installation, and long-term thermal performance. These prefabricated panels come in standardized sizes and are ideal for constructing cold rooms, freezer rooms, and hygienic enclosures. Made with high-density PIR or PUR insulation, they provide superior energy efficiency, structural durability, and fire resistance. The modular design allows for easy assembly, expansion, or relocation, making them perfect for dynamic storage needs in the food, pharmaceutical, and logistics sectors. ColdTech ensures precision manufacturing and quality finishes to meet global hygiene and performance standards.



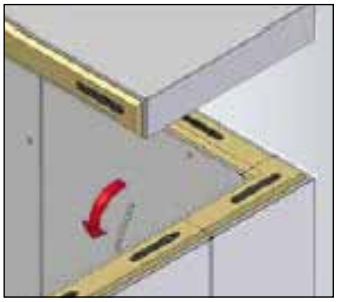




Rounded Corners

Wall to Ceiling Cam Locking

Floor to Wall Cam Lock



TECHNICAL SPECIFICATION

Panel Thickness (mm)	| 50 | | 100 | | 150 | | 200 |
Useable width	1180 mm
Length	Customized
Field of application	Cold room or others
Thicknesses of outer face (mm)	0.3 / 0.4/ 0.5 / 0.6 / 0.7 / 0.8 / 0.9
Thicknesses of inner face	base on panel thickness
Exterior face	PPGI, PVC Plastisol, Stucco Aluminum, Stainless Steel, Anti Bacterial, Food Safe
Interior face	Polyurethane
Coatings	Customized
Outer ribbing	Standard / flat
Inner ribbing	Standard / flat
Type of core	Polyisocyanurate (PIR)
Core Density	40 Kg/m3
Recommended thickness of steel sheets	0.4~0.8mm
PUR Flammability class of PUR	B2/B3
PIR Flammability class of PIR	B1/B2
Density of PUR	38~45kg/m³
Density of PIR	45~55kg/ m³
Compressive strength(MPa)	≥0.20
Colors Available	White, gray, silver, blue, red, orange etc., customization

Panel thickness	**Panel weight**	**U-Value**	**R-Value**
mm (")	LB/ft2	BTU/Hr ft2ºF	Hr ft2ºF/BTU
40 (19/16")	2.06	0.097	16.299
50 (131/32")	2.14	0.075	19.322
60 (23/8")	2.22	0.060	22.547
80 (35/32")	2.38	0.044	28.712
100 (315/16")	2.55	0.035	34.745
120 (43/4")	2.71	0.029	40.728
120 (6")	2.96	0.023	49.634

Physical Property of PUF & PIR Panels

PUF Thickness (mm)	Recommended Temp. Degree @ 32°C Ambient Temp. W	Weight						Thermal Conductivity 'K' Value W/mK	Thermal Transmittence 'U' Value W/m2K	Thermal Resistance 'R' Value m2K/W	Thermal Transmittence 'U' Value K.Cal/m2K	Thermal Resistance 'R' Value m2K/K.Cal
		Wall & Ceiling		Floor Panel								
				Floor Bare Slab		Alu. Checkered Floor						
		Kg/ Sq.ft	Kg./ Sq.mtr	Kg/ Sq.ft	Kg./ Sq.mtr	Kg/ Sq.ft	Kg./ Sq.mtr					
60	+20 to +2	1.5	16	0.25	3	2.5	27	0.022	0.3521	2.84	0.3018	3.31
80	+2 to -8	1.6	17	0.35	4	2.6	28	0.022	0.2679	3.73	0.2296	4.36
100	-8 to -18	1.7	18	0.425	5	2.7	29	0.022	0.2163	4.62	0.1854	5.39
125	-18 to -27	1.85	20	0.525	6	2.85	31	0.022	0.1721	5.81	0.1475	6.78
150	-27 to -50	2	22	0.65	7	3	32	0.022	0.1459	6.85	0.1251	7.99

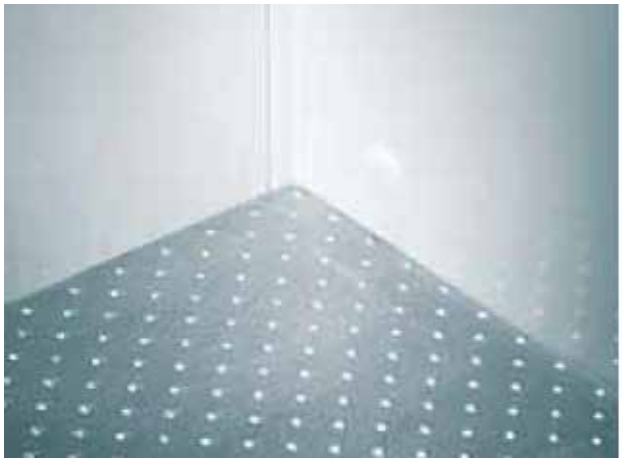
Insulation Property of PUF & PIR Panels

	"Thermul Flux (Heat loss per m2 wall area) at different ΔT									
	W/m3					K.Cal/m3				
Panel Thickness (mm)	**60**	**80**	**100**	**125**	**150**	**60**	**80**	**100**	**125**	**150**
Temp. Difference °C										
1	0.3521	0.2679	0.2163	0.1721	0.1459	0.3018	0.2296	0.1854	0.1475	0.1251
10	3.5205	2.6797	2.1631	1.7556	1.4596	3.0174	2.2968	1.854	1.5047	1.251
15	5.2808	4.0196	3.2446	2.6335	2.1894	4.5262	3.4452	2.781	2.2572	1.8766
20	7.0411	5.3595	4.3262	3.5113	2.9192	6.0349	4.5936	3.708	3.0095	2.5021
25	8.8014	6.6993	5.4077	4.3891	3.6491	7.5437	5.7419	4.635	3.7619	3.1276
30	10.5617	8.0391	6.4893	5.267	4.3789	9.0524	6.8903	5.562	4.5143	3.7531
35	12.3219	9.379	7.5708	6.1447	5.1087	10.5611	8.0387	6.489	5.2667	4.3786
40	14.0822	10.7189	8.6524	7.0226	5.8384	12.0699	9.1871	7.4159	6.0191	5.0041
45	15.8424	12.0587	9.734	7.9004	6.5682	13.5786	10.3356	8.343	6.7714	5.6296
50	17.6028	13.3986	10.8155	8.7782	7.298	15.0873	11.484	9.2699	7.5238	6.2551
55	19.3631	14.7385	11.8971	9.6561	8.0278	16.5961	12.6324	10.197	8.2762	6.8806
60	21.1239	16.0784	12.9786	10.5339	8.7576	18.1053	13.7808	11.1239	9.0286	7.5062
65	22.8836	17.4182	14.0602	11.4117	9.4874	19.6135	14.9292	12.051	9.781	8.1317
70	24.6439	18.4382	15.1417	12.2896	10.2172	21.1223	15.8034	12.9779	10.5334	8.7572
80	28.1644	21.4377	17.3048	14.0452	11.6769	24.1397	18.3743	14.832	12.0382	10.0082

Technical Specifications of PUF & PIR Panels

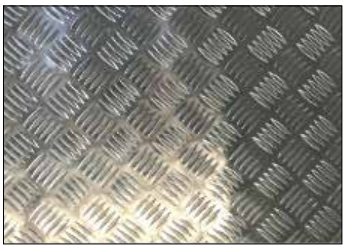
Sr. No.	Parameters	Descriptions
1	Average PUF/PIR Density	40 ± 2 kg/m3 - PUF; 45 ± 2 kg/m3 - PIR
2	PUF Blowing Agent	141B (CFC free)
3	Insulation Material	Polyurethane/Polyisocyanurate foam
4	Temperature range	-50°C to +60°C
5	Panel Type	Discontinuous type with camlock
6	M.O.C. of Camlocks	Cam locks body material HIPS and male latch is made of nylon Glass field with Gl sheet reinforcement. Cam-lock panel joints easy assembly and leakage resistant, panel-to-panel joints."
7	Type of Panel joints	Tongue & Groove Joint with Cam lock and all side rubber gaskets
8	Corner Panel & T Panel Available	12" x 12" x 162" (maximum Length) - Corner Panel; Customized sizes - T Panel
9	Length of Wall & ceiling Panel	1.8m to 12m 80" to 472.5" inch
10	Ceiling Suspension items with specs	• MS bolt with thermal breaking cap. • PVC Round Plate 6 mm thickness x 90 mm diameter Aluminium/MS washer plate for load distribution • Anchor bolt (MS) hanging bolt with 40 mm washer 2.0 mm thickness Sealing to panel MS road Clamp with an insulated crown.
11	Closed cell content	90 to 95% - PUF; >95% - PIR
12	Vapour Permeability	5.5mg/PASM
13	Water Absorption	Less than 2% for PUF & PIR
14	Fire Grade Polyurethane PUF Panel	• FR Grade B2 (Fire Resistant Grade) - PUF; • FR Grade B1 (Fire Resistant Grade) - PIR
15	Compressive Strength at 10% Deformation	110-210 kPa - PUF; >240 kPa - PIR
16	Tensile Strength	370 kPa - PUF; >350 kPa - PIR
17	Adhesive Strength (Foam to Sheet)	2.9 kg /sq.mtr for PUF & PIR
18	Dimension Stability	Less than 2% for PUF & PIR
19	Panel Facing Availability	With Rib or plain on Demand (Ribs are provided for more strength)
20	Wall & Ceiling Panel facing Material	• Pre Painted Galvanised sheet , Thickness 0.45mm • Plain Galvanised sheet, Thickness 0.45mm • S.S. Sheet, Grade 316, 0.50mm, finish 28/0.6 mm mate No.4 • S.S. Sheet, Grade 304, 0.50mm, finish 28/0.6 mm mate No.4"
21	Floor Panel Facing Material	• PUF Panel with both side tarfelt sheet. • PUF Panel with both side 0.5 - 1.5mm GIPP sheet. • PUF Panel with outside GIPP sheet, inside 9 & 12mm thick marine ply with 1-22 mm thick Aluminium Chequered Plate"
22	Specification for Colour Coating	A. RAL No. : 9002 or it's nearest B. Indian Standard code Colour Coating : IS 14246 Galvanizing : IS 277 Base Metal : IS 513 C. Organic Coating : Type RMP (Polyester) D. Zinc Coating : 120 GSM E. Top Primer (Thickness in micron 'J-1') : 5 +/-1 J1 F. Top Coat {Thickness in micron 'J-1') : 20 +/-1 J1 G. Back Primer (Thickness in micron 'J-1') : 4 +/-1 J1 H. Back Coat (Thickness in micron 'J-1') : 4 +/-1 J1 I. Guard Film (Thickness in micron 'J-1') : 40 +I-3 J1 J. Salt Spray Test /Humidity Test : 750 hrs. /1000 hrs."

FLOORING



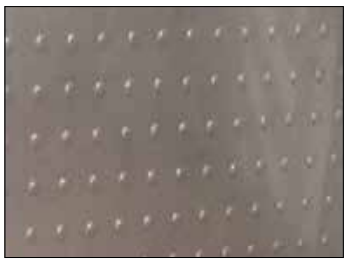
Contemporary ALTRO Safety Floor finish for wet application for premium kitchens

Kota Stone / Tiled Floor finish for wet & rough application for all types of kitchens and processing halls.



Aluminium Chequered 1.2 to 3.0 mm for Pharma, Ice Cream and any water free applications

Galvanized Sheet. 0.5/0.6/ 0.8/1.0/1.2/1.5 mm for dry applications



S.S. Dimple plates 0.8 to 2.0 mm for all dry type special applications

POLYURIA COATING FLOORING

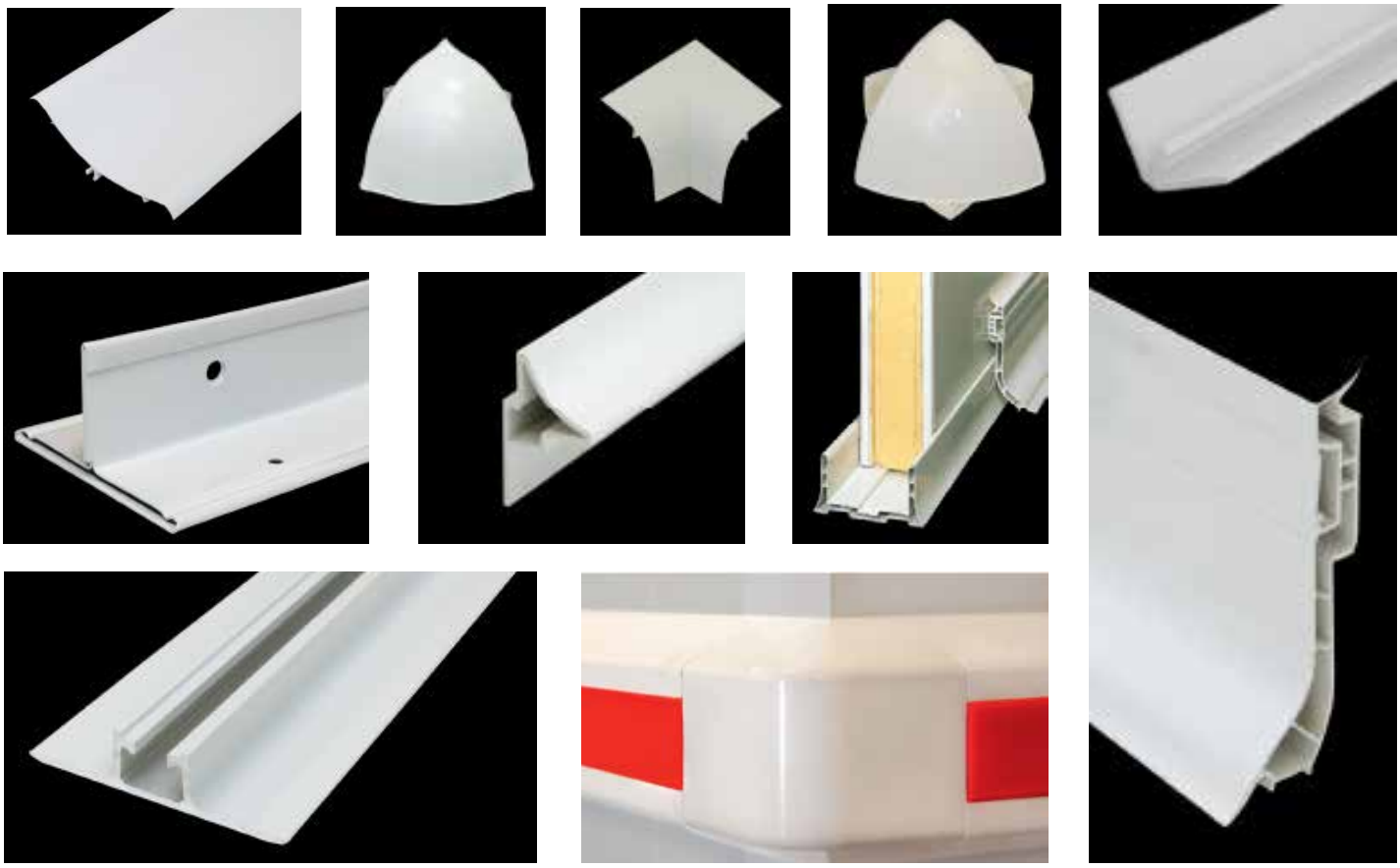
Snowland Cooling Systems LLC provides specialized polyurea coating flooring solutions for commercial and industrial cold rooms, cold storage, freezer rooms, and blast chillers/freezers. Our polyurea coatings are designed to offer exceptional durability, waterproofing, and resistance to chemicals and abrasion, making them ideal for demanding, temperature-controlled environments. This advanced flooring solution ensures superior thermal insulation, easy maintenance, and enhanced safety with anti-slip properties. Perfect for food processing facilities and other industrial applications, Snowland Cooling Systems LLC delivers polyurea-coated flooring that combines longevity, performance, and protection against the harshest conditions.

HYGIENIC, WALL PROTECTION AND CEILING SUSPENSIONS ACCESSORIES

We understand that maintaining hygiene and durability in cold storage environments is crucial. That's why we offer a range of accessories designed to protect your cold room's structural integrity and ensure the highest standards of cleanliness.

Our Accessory Range Includes:

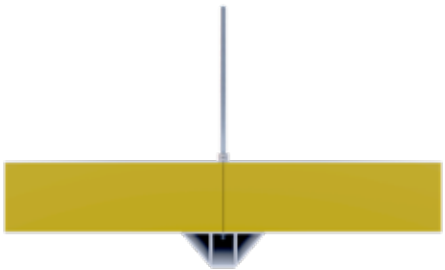
- Covings
- Backing Profiles
- Plinths
- Bumper
- Suspensions

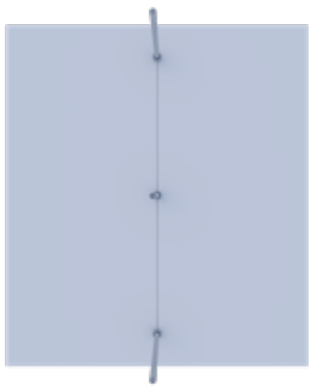


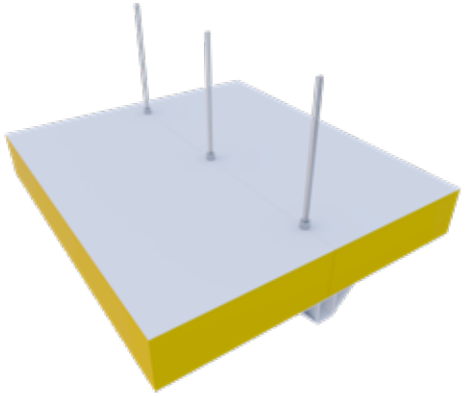
DOUBLE CORNER COLD ROOM JOINT: (ROOM TEMPERATURE > 0 ºC)

DOUBLE CORNER COLD ROOM JOINT: (ROOM TEMPERATURE > 0 ºC)

DOUBLE CORNER COLD ROOM JOINT:







Storage

Unloading at site

Extreme care and attention need to be given while unloading the panels at the site. It has to be done not only for the protection of the panels but also for the safety of the handling personnel.

Panels should never be dropped onto hard or uneven surfaces or thrown from vehicles.

Storage

Panels supplied in bundles should be stored on flat even ground able to withstand the weight of both the panels and the lifting equipment. The Polyethylene sheet wrap could remain on the bundle when the panels are stored for short periods provided they are not exposed to sunlight and humidity.

For long storage periods, TSSC advises its customers to remove the Polyethylene sheet wrap and store the panels indoors. Using forklift with panels - under “6” meters Spreader bar with slings Using Lifting beam with panels over “6” Meters Long.

Protective film

Both sides of TSSC insulated panels are covered with nylon protective film to protect the panels from scratches. The protective film should be removed only after the panels are installed in order to ensure maximum protection.

The protective film could remain on the insulated panel for any storage period. However, for long periods of storage the panels should be stored indoors.

Packaging

Standard Packing

1. Insulated panels of standard dimensions are stacked together in one bundle.
2. Panels of different sizes could be stacked together for easy transportation.
3. To avoid damage the insulated panels are placed on top of a 15mm polystyrene sheet, which is further supported by 80mm polystyrene placed as spacers at a distance of 80mm. The panels are also covered on top with an additional 15mm polystyrene sheet.
4. The stack is wrapped with a thick polyethylene sheet covering all sides of the stack. The packing then passes through an automated packing machine which further covers the entire stack with shrink wrap to ensure that the insulated panels reach the customer without any tampering.
5. When panels are transported by container, insulated panels can be stacked both horizontally and vertically to achieve optimum container space usage.

Special Packing

1. Special crating - For special transportation needs, insulated panels are packed in crates (semi or full) as per the requirement. This provides additional safety for the panels in all modes of transportation such as air, sea and land.
2. Corners of the insulated panels are protected using special corner protection angles for break bulk consignments and consignments that involve both air and land transportation.
3. When long and heavy insulated panels are packed, a thick PU/PIR foam panel is placed on top of the wooden pallet to give more protection on the top.

COLDSPAN

Corporate Office:

UAE
ColdTech Refrigeration and Freezing Equipment Manufacturing LLC
PO BOX: 90334, Al Quasis Industrial Area-4, Dubai, UAE
Email: info@coldtechgroup.com
Web: www.coldtechgroup.com

Regional Offices:

UAE: PNL113, Al Ghail Industrial Zone-NFZ, RAK, UAE
Phone: +971 56 265 3347
Email: arif@coldtechgroup.com
Web: www.coldtechgroup.com

KSA: Riyadh - Al Khaleej, Salman Al Farsi Street

Bahrain: Sitra Industrial Area, Kingdom of Bahrain

Qatar: Al Rayyan, Doha, Qatar

Oman: Ruwi, Sultanate of Oman

Kuwait: xxxxx