FrigoSys
Master Cold Enginering

PRODUCT CATALOG · 2026

COLD ROOM PANELS

Sandwich Panel

PUR / PIR COLD ROOM PANELS · WALL & CEILING

SOĞUK ODA SANDVIÇ PANELI · DUVAR VE TAVAN



60–200 MM THICKNESS

0.11 W/M²K U-VALUE AT 200 MM

PUR / PIR INSULATION CORE

ABOUT US · HAKKIMIZDA

Frigo System

Frigo System was established by a highly experienced and dynamic team in the refrigeration industry. We carry out project engineering, production, assembly and service for industrial and commercial cooling systems, with a team specialised in energy efficiency and optimisation.

From a single walk-in cooler to multi-room cold storage plants, we supply cold room panels, doors and refrigeration systems from our factory in Türkiye to customers in the USA, Europe, the Caucasus, the Middle East and Africa.

Frigosys Sandwich Panel

A sandwich panel with a PUR (polyurethane) or PIR (polyisocyanurate) core for cold storage walls and ceilings. Its specially painted surface gives full protection against bacteria, and the strongly fitting double tongue-and-groove joint gives a tight, well-insulated envelope.

CONTENT · İÇINDEKILER

03 Features & Applications
Özellikler ve uygulama alanları

04 Panel Structure
Panel yapısı ve birleşim detayı

05 Technical Specifications
Teknik özellikler

06 Thermal Performance & Selection
Isıl performans ve kalınlık seçimi

07 Handling & Storage
Taşıma ve depolama

08 Surface Coatings & Colours
Yüzey kaplamaları ve renkler

09 Contact
İletişim

Efficiency & Savings

The right process for each project — quality and economical work.

On-Time Delivery

We deliver on the agreed date and service every job we do.

Quality Workmanship

Quality materials, factory-controlled production and assembly.

Export Ready

Packing, export documents and logistics handled in-house.

01 · ÖZELLIKLER VE UYGULAMA ALANLARI

Features & Applications

Key Features

- Specially painted surface giving full protection against bacteria
- Strongly fitting double tongue-and-groove joint for better thermal insulation
- For cold storage walls and ceilings
- PUR or PIR insulation core
- Rigid foam core — does not retain water, gives no home to bacteria or pests
- Core foamed with n-Pentane — no harm to the environment
- Coloured surface — no plaster or paint needed

Performance Advantages

- Ideal thermal insulation with thinner panels compared to alternative insulation materials
- Fast, problem-free assembly saves time and labour
- Colour choice from the RAL catalogue
- Surface paint to suit the application: Polyester, PVDF, Plastisol, PVC

Product applications · Uygulama alanları

Fruit & Vegetable
Fruit and vegetable facilities

Dairy & Ice Cream
Dairy and ice cream facilities

Poultry
Poultry processing plants

Meat
Slaughterhouses and meat processing plants

Cold Storage
Cold storage warehouses

Fish
Fish processing and storage areas

Advantages

Thinner, better insulated
High-performance PUR / PIR reaches the same insulation with less thickness than alternative materials.

Hygienic
Antibacterial painted surface; foam core does not hold water or harbour pests.

Fast assembly
Double tongue-and-groove joints fit quickly and tightly — less time and labour on site.

Environment-friendly
n-Pentane blowing agent — no harm to the ozone layer.

Ready finish
Factory-coloured surface — no plastering or painting after installation.

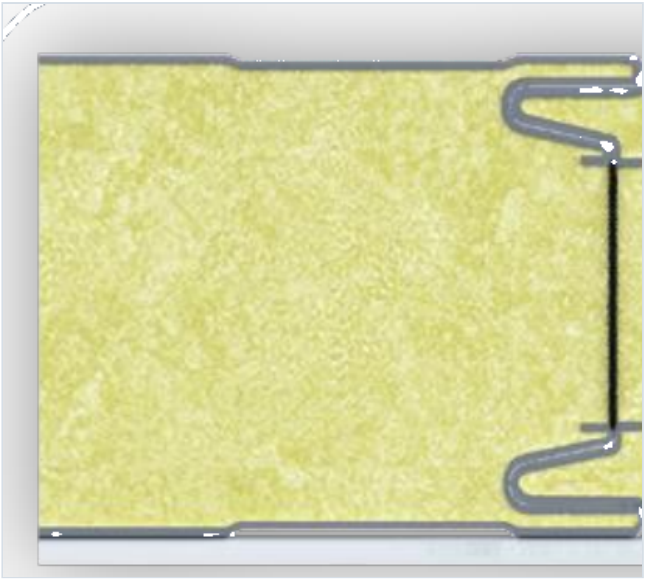
Wall & ceiling
One panel system for both walls and ceilings of the cold room.

02 · PANEL YAPISI

Panel Structure & Joint

Two painted steel skins bonded to a rigid PUR or PIR foam core. Panels join along their long edges with a double tongue-and-groove profile, closing the thermal bridge and giving a strong, airtight connection.





Section through the double tongue-and-groove joint

① Steel skins

White micro-ribbed steel skins with antibacterial paint. Polyester, PVDF, Plastisol or PVC coatings to suit the application.

② PUR / PIR core

Rigid polyurethane (PUR) or polyisocyanurate (PIR) foam, blown with n-Pentane. High insulation, closed structure that does not absorb water.

③ Double tongue & groove

Strongly fitting joint on both faces — tight connection and better thermal insulation.

Wall panels

Outer wall panels have a notch at the top where the ceiling panels sit, for a clean, tight wall-to-ceiling connection.

Ceiling panels

The same panel is used for ceiling coverings, giving one continuous insulated envelope.

03 · TEKNIK ÖZELLIKLER

Technical Specifications

Specification	Frigosys Sandwich Panel
Product Ürün	PUR / PIR core sandwich panel for cold room walls and ceilings
Core Dolgu	PUR (polyurethane) or PIR (polyisocyanurate) rigid foam, blown with n-Pentane
Thickness Kalınlık	60 · 80 · 100 · 120 · 150 · 200 mm
Panel width Panel eni	1000 mm or 1110 mm
Joint Birleşim	Double tongue-and-groove
Skins Yüzey	Painted steel, white micro-ribbed, antibacterial paint
Surface coating Yüzey boyası	Polyester · PVDF · Plastisol · PVC — selected by application
Colour Renk	RAL catalogue colours
Use Kullanım	Cold room walls and ceilings

Thermal values by thickness

Thickness (mm)	60	80	100	120	150	200
U-value W/m²K	**0.37**	**0.28**	**0.22**	**0.19**	**0.15**	**0.11**
R-value m²K/W	2.63	3.51	4.39	5.26	6.58	8.77

04 · ISIL PERFORMANS VE KALINLIK SEÇIMI

Thermal Performance & Selection

The maximum heat gain by conduction in a cold store should be limited to 10 W/m². The table shows the heat gain (W/m²) for each panel thickness at the temperature difference between inside and outside the room — choose the thickness that stays within the limit.

mm	U W/m²K	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
60	0.37	3.7	5.6	7.4	9.3	11.1	13.0	14.8	16.7	18.5	20.4	22.2	24.1	25.9	27.8	29.6	31.5	33.3
80	0.28	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6	14.0	15.4	16.8	18.2	19.6	21.0	22.4	23.8	25.2
100	0.22	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.7	19.8
120	0.19	1.9	2.9	3.8	4.8	5.7	6.7	7.6	8.6	9.5	10.5	11.4	12.4	13.3	14.3	15.2	16.2	17.1
150	0.15	1.5	2.3	3.0	3.8	4.5	5.3	6.0	6.8	7.5	8.3	9.0	9.8	10.5	11.3	12.0	12.8	13.5
200	0.11	1.1	1.7	2.2	2.8	3.3	3.9	4.4	5.0	5.5	6.1	6.6	7.2	7.7	8.3	8.8	9.4	9.9

Temperature difference between inside and outside of the room (°C) · values in W/m²

Within the 10 W/m² limit Above 10 W/m² — choose a thicker panel

Recommended thickness · for an outside temperature of +35 °C

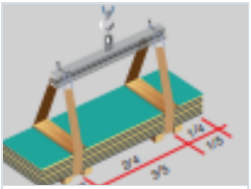
60 mm	80 mm	100 mm	120 mm	150 mm	200 mm
Cool rooms	Chill rooms	Low chill / light freeze	Freezer rooms	Deep freeze	Blast freezers
+10 … +15 °C	0 … +5 °C	−5 … −10 °C	to −15 °C	−18 … −30 °C	−35 … −40 °C

Derived from the table above with the 10 W/m² rule. Final selection depends on site climate and project conditions.

05 · TAŞIMA VE DEPOLAMA

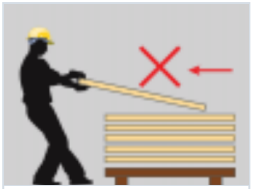
Handling & Storage

Correct handling and storage on site protect the painted surfaces and the joints. Please follow these rules from delivery to installation.



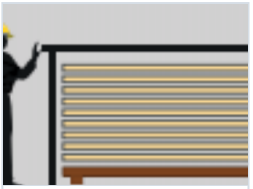
Hoisting

Take precautions for the sling when hoisting panel packs.



Do not drag

Do not drag panels on the pile or roof purlins. Lift each panel from both ends when moving or laying it.



Long-term storage

Stack in covered areas, on wooden wedges, protected from ground water.



Short-term storage

Stack on a sloping area under simple scaffolding and polyethylene cover, leaving space for ventilation.



Do not walk

Do not walk on the panels.

On delivery

Check packs for damage before unloading. Report any deformation of skins or joints to your representative before installation.

On site

Keep packs flat and supported along their length. Keep the protective film on until installation is complete.

06 · YÜZEY KAPLAMALARI VE RENKLER

Surface Coatings & Colours

The coloured surface removes the need for plaster or paint. Choose the coating for the application and any colour from the RAL catalogue.

Polyester

Standard

General cold storage and food facilities.

PVDF

High durability

For demanding and exposed environments.

Plastisol

Heavy duty

Thick coating for aggressive conditions.

PVC

Food-safe film

For hygiene-critical processing areas.

Colours



RAL 9002 Grey White
RAL 9010 Pure White
RAL 9016 Traffic White
RAL 7035 Light Grey
RAL 7016 Anthracite Grey
RAL 5015 Sky Blue

Any RAL colour on request. Printed colours may differ slightly from the RAL scale.

From order to service

Engineering

Room layout, thickness selection and panel list prepared for each project.

Delivery & Export

Careful packing, export documentation and logistics to the USA, Europe, the Caucasus, the Middle East and Africa.

Installation

Installation by our team, or supervision for your installer.

Turnkey

Panels, doors and refrigeration systems supplied as one package.

FrigoSys
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Contact Us

For enquiries, quotations or technical support on our panels, doors and refrigeration solutions, get in touch with us.

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Engineered for cold.
Built to last.