

INSULATED COLD STORAGE SANDWICH PANELS



istanbulmavi



**SANDWICH
PANEL**

MEANS

İSTANBUL MAVİ



2005

İstanbul Mavi was established in Mersin in 2005, and has been carrying out its activities in the sector for 15 years.

500

We are among ICI Turkey's Top 500 Industrial Enterprises List.



460

We provide services to the sector with approximately 460 employees.



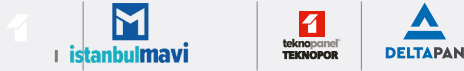
89

We export to 89 countries in total in Asia, Europe and Africa as well as North and South America.



4

We provide services to the sector with 4 different brands.



4

We have 4 facilities in Mersin, Sakarya, Izmir and Istanbul with high production standards.



2

We have 2 sales offices in Istanbul and Ankara.

123.000m²

Total area of our production facilities is 123 thousand square meters.

13.500.000m²

We have an annual insulated sandwich panel production capacity of 13.5 million square meters in total.



1.600.000m³

Our annual production capacity for EPS products is 1.6 million cubic meters.





WITH İSTANBUL MAVİ INSULATED COLD STORAGE SANDWICH PANELS, TEMPERATURE IS UNDER YOUR CONTROL



With Istanbul Mavi Insulated Cold Storage Sandwich Panels, which ensure perfect thermal and humidity insulation in your cold storage, by Turkey's leading sandwich panel manufacturer, the temperature is only under your control.

İstanbul Mavi Insulated Cold Storage Sandwich Panels, which have the perfect joining details and high insulation feature, are the best choice for preserving not only food products but also chemical and medical products in healthy and hygienic environments under desired temperatures for a long time.

WHY INSULATED SANDWICH PANEL FOR COLD STORAGES?



High Thermal and Humidity Insulation

The most suitable building material for the insulation of your cold storage areas against thermal and humidity is sandwich panels. The reason is that sandwich panels prevent heat gain or heat loss between indoor and outdoor areas and ensure perfect thermal insulation so that products requiring preservation under a certain temperature are kept healthy, durable and long-lasting.

In addition, insulated cold storage sandwich panels provides humidity insulation by preventing condensation arising from the temperature and humidity pressure difference between the outside atmosphere and the cold room.

As a result, they prevent problems such as mold and humidity, which helps your building to become much more durable and long-lasting.



Air and Water Tightness with Perfect Joint Detail

Thanks to the joint details of Istanbul Mavi Insulated Cold Storage Sandwich Panels, which ensure perfect assembly, your building is entirely protected against air and water leakage. Thus, you take control of heating and cooling process in your building, ensuring energy efficiency.

Istanbul Mavi Insulated Cold Storage Sandwich Panels also prevent humidity and mold because of waterproof against wet weather conditions.



Flexible Production, Quick and Easy Installation

Manufactured in continuous lines, insulated cold storage sandwich panels are prepared as per the size, insulation type and color according to the needs of your project, in contrast to traditional systems. They are produced as perfectly compatible pieces ready to install, reengineered and controlled beforehand at the factory.

With different joint detail alternatives insulated cold storage sandwich panels offer you energy efficient, hygienic and safe environments. Produced at various thicknesses ranging from 80 mm to 200 mm, cold storage sandwich panels have lined and flat surface types, as well as stainless steel and PVC laminated surface options. Sandwich panels reduce the shipping and handling time of the products, because of its composite and lightweight features. Also it can be covering large surfaces and having few joint points make the installation is easier and quicker. Thus, your project will be delivered in a short time, you will save time.



Economical Solution

You provide excellent thermal and moisture insulation in your cold storage with the most suitable sandwich panel to be determined by your selection of PUR or PIR insulation materials according to the needs of your building. In addition you also save energy by keeping the energy consumed to a minimum level to keep the cooling air at the same temperature.

Istanbul Mavi Insulated Cold Storage Sandwich Panels offer you cost advantages as, in transportation and basic construction with its lightness, in assembly workmanship with its ability to cover large surfaces, and in maintenance cost with its durability.

Thanks to the possibility of quick and easy assembly, sandwich panels are very economic and practical so you save time and you can expand and renew your building without affecting indoor activities.

USAGE AREAS OF INSULATED COLD STORAGE SANDWICH PANELS



Cleanroom

It refers to specially designed closed areas that are kept under constant pressure in order to determine the amount of airborne particles, minimize their entry, formation and retention within the room, as well as to control atmospheric conditions (such as ventilation, temperature, relative humidity and pressure) and other relevant parameters, in cases where product sterilization is required.

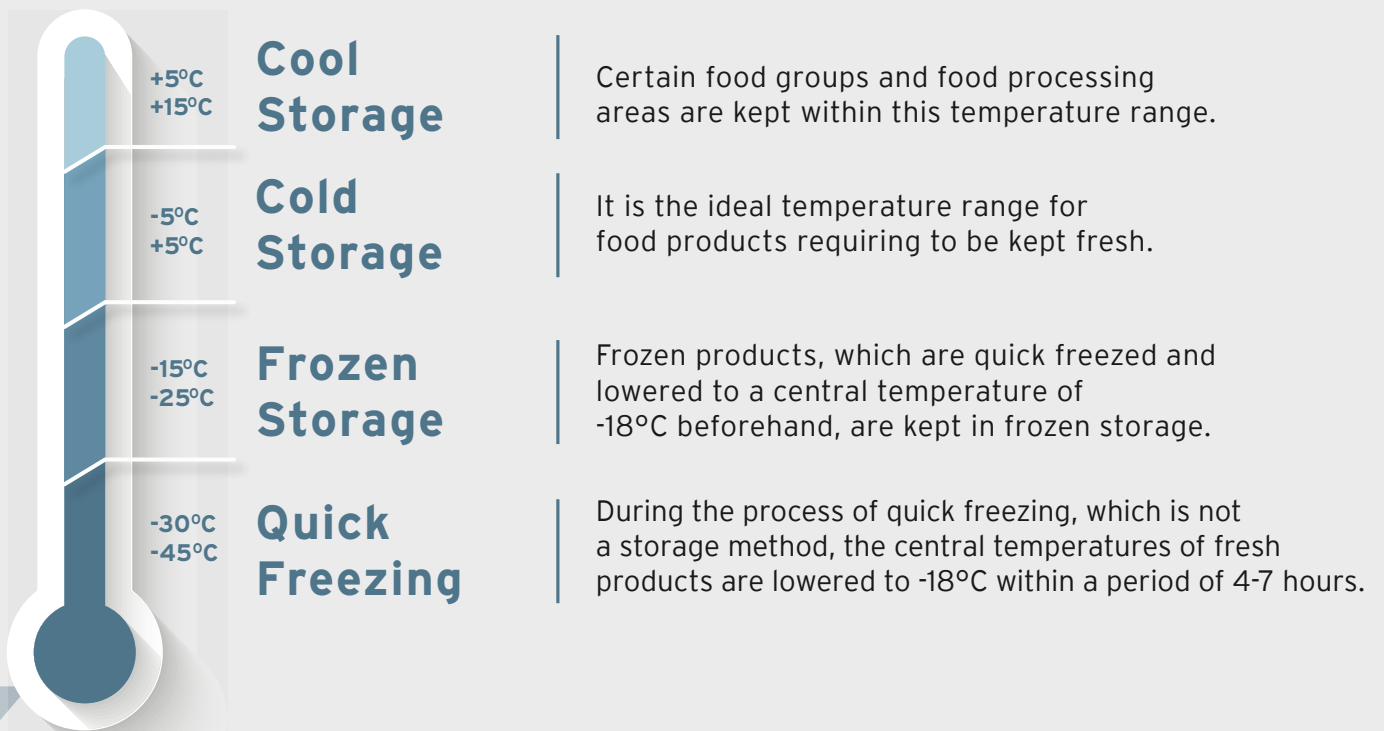
Istanbul Mavi Insulated Cold Storage Sandwich Panels ensure the ideal ambient temperature and atmospheric control with thermal and moisture insulation for all products which require attention and diligent care. They prevent air inlet with their perfect joint detail. With stainless steel and PVC laminated surface options of insulated cold storage sandwich panels that can be easily cleaned, hygienic environments are provided.



Cold Room


Perishable products, such as agricultural and animal products as well as seafood, must be kept in a cold environment from their production to consumption. Cold rooms are areas insulated against the transfer of thermal and humidity from the external environment, where temperature and humidity levels are controlled, so that food products can be stored for a period longer than their normal storage time. In cold rooms, different storage methods are applied for different products.

Product Storage Methods in Cold Rooms





İSTANBUL MAVİ INSULATED COLD STORAGE SANDWICH PANELS

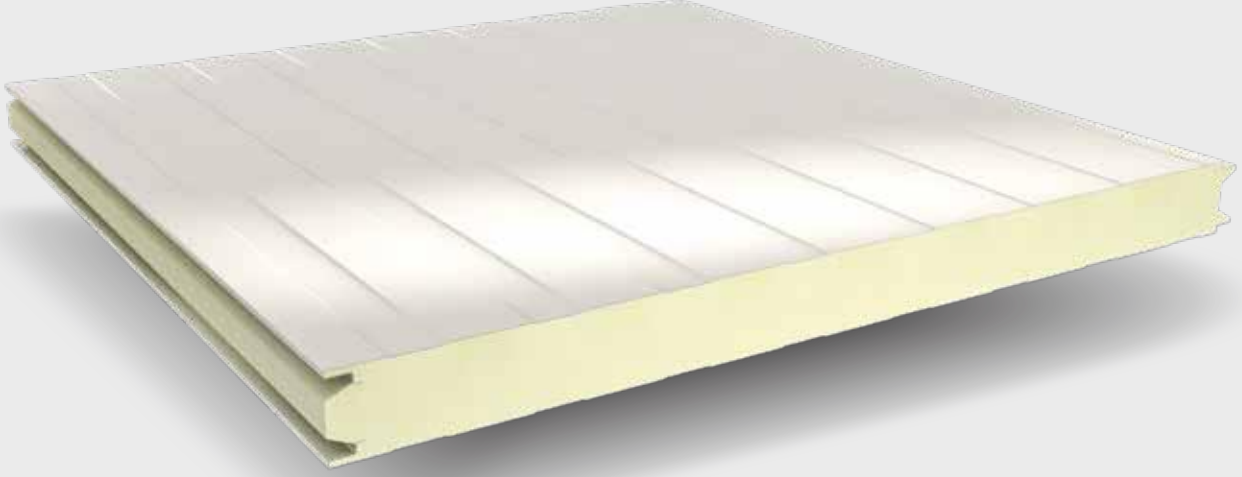


Being Turkey's leading sandwich panel manufacturer, İstanbul Mavi uses PUR and PIR insulation materials compliant to international standards. So that İstanbul Mavi Insulated Cold Storage Panels ensure the perfect thermal and moisture insulation for your cold storage. With joint detail alternatives and thickness options from 80 mm to 200 mm* for different projects, İstanbul Mavi Insulated Cold Storage Sandwich Panels offer you high energy efficient, hygienic and safe environments. In addition, lined and flat surfaces, stainless steel and PVC laminated surface options, you are provided with suitable insulated cold storage sandwich panels for your facility.

*In sandwich panels, the thickness of the insulation material varies according to the load carrying capacity, regional conditions, the usage purpose of the building and the thermal insulation value.

PUR/PIR INSULATED COLD STORAGE SANDWICH PANELS

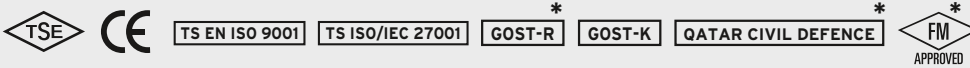
CP-SP / CI-SP - CP-SS / CI-SS



Product Features

- Lined and flat surface type options
- Prepainted galvanized steel, stainless steel or PVC laminated inner and outer sheet alternatives
- Fire performance according to TS EN 13501-1, **B-s2; d0** for PUR insulated cold storage sandwich panels, **B-s1; d0** for PIR insulated cold storage sandwich panels
- Production flexibility at any ordered length between 2 m - 12 m
- Core thickness options 80-100-120-150-180-200 mm
- According to TS EN 14509, U values range between 0,27 - 0,11 W/m²K depending on the panel thickness
- PUR and PIR insulation alternatives
- Production in Mersin, Izmir and Sakarya factories

Certificates

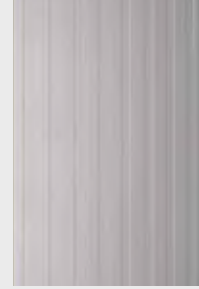


*Certificate is valid for PIR insulated panels.

Surface Types



Flat



Lined

| Product Code | Insulation Type | Place of Production |
|--------------|-----------------|---------------------|
| CP-SP | PUR | Mersin - Izmir |
| CI-SP | PIR | Mersin - Izmir |
| CP-SS | PUR | Sakarya |
| CI-SS | PIR | Sakarya |

Technical Specifications

PUR/PIR INSULATED COLD STORAGE SANDWICH PANEL - MERSIN, IZMIR CP-SP / CI-SP



PUR/PIR INSULATED COLD STORAGE SANDWICH PANEL - SAKARYA CP-SS / CI-SS



Physical Data

| Product | Core Thickness | Outer Sheet Thickness** | Inner Sheet Thickness** | Min. Length | Max. Length | Heat Transfer Coefficient* | Thermal Resistance* |
|---------|----------------|-------------------------|-------------------------|-------------|-------------|----------------------------|-------------------------|
| | d mm | t _{Ne} mm | t _{Ni} mm | m | m | U W/m ² K | R m ² K/W |
| CP-SP | 80 | 0,50 | 0,40 | 2 | 12 | 0,27 | 3,68 |
| CI-SP | 100 | | 0,45 | | | 0,22 | 4,61 |
| CP-SS | 120 | 0,60 | 0,18 | | | 5,52 | |
| CI-SS | 150 | 0,70 | 0,15 | | | 6,88 | |
| | 180 | 0,80 | 0,12 | | | 8,25 | |
| | 200 | 0,80 | 0,11 | | | 9,16 | |

*Calculated according to TS EN 14509.

**For further thickness options please contact Teknopanel.

Load Table

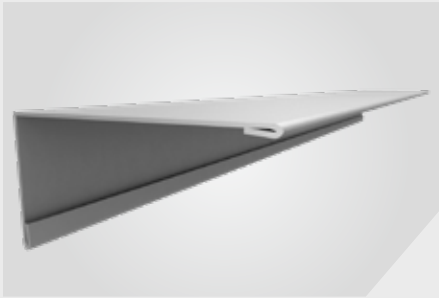
| CP-SP / CI-SP - CP-SS / CI-SS PUR/PIR INSULATED COLD STORAGE SANDWICH PANELS | | | | Single Span Uniformly Distributed Loads (kg/m ²) | | | | | | | | | |
|--|-------------------|----------------------|-------------------------|--|------|------|------|------|------|------|-------|-------|-------|
| Outer Sheet mm | Inner Sheet mm | Core Thickness mm | Δt °C | Span (m) | | | | | | | | | |
| | | | | 3.00 | 4.00 | 5.00 | 6.00 | 7.00 | 8.00 | 9.00 | 10.00 | 11.00 | 12.00 |
| 0,50 | 0,50 | 80 | Ext: 20°C Int: 0°C | 173 | 128 | 102 | 85 | 73 | 64 | 57 | 46 | 38 | 32 |
| | | 100 | | 220 | 162 | 129 | 107 | 92 | 80 | 71 | 58 | 48 | 40 |
| | | 120 | | 267 | 196 | 156 | 129 | 111 | 97 | 86 | 70 | 57 | 48 |
| | | 150 | Ext: 30°C Int: -20°C | 312 | 230 | 184 | 153 | 132 | 116 | 103 | 90 | 74 | 61 |
| | | 180 | | 383 | 281 | 223 | 185 | 159 | 139 | 124 | 110 | 90 | 74 |
| | | 200 | | 431 | 315 | 249 | 207 | 177 | 155 | 139 | 124 | 100 | 83 |

Calculated according to TS EN 14509.
Self weight, live load, wind load and temperature difference are taken into consideration.
L/200 is used as deflection limit.

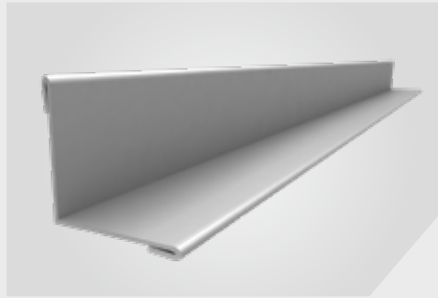
The values have been calculated by TİCEM İleri Yapı Teknolojileri.
Please contact Teknopanel for the panels that are not shown at load table.

FLASHINGS AND COMPLEMENTARY PRODUCTS FOR INSULATED COLD STORAGE SANDWICH PANELS

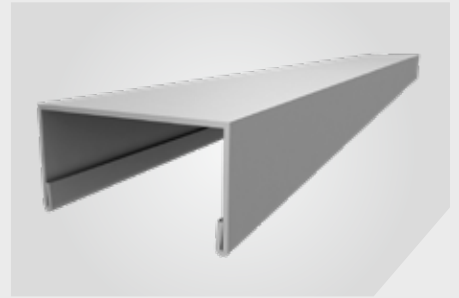
METAL FLASHINGS



Cold Storage Outer Corner

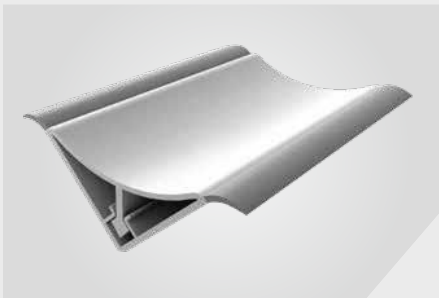


Cold Storage Inner Corner



Cold Storage Floor U

PVC FLASHINGS



PVC Inner Corner Profile
H: 70mm-100mm



PVC Plinth Profile - Cable Channels
H: 70mm-100mm



PVC Plinth Profile Inner Corner
H: 70mm-100mm



PVC Plinth Profile Outer Corner
H: 70mm-100mm



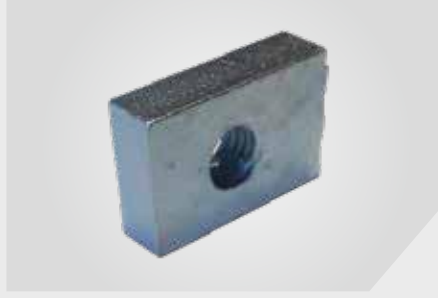
PVC Plinth Profile Cap (Right and Left)
H: 70mm-100mm



COMPLEMENTARY PRODUCTS



Aluminium Suspension Profile
L: 6m



Nut for Aluminum Suspension Profile



Nut for Aluminum Suspension Profile - Double



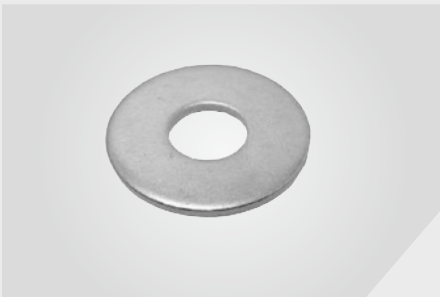
Hanger Tiege



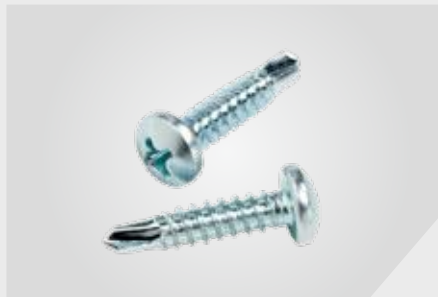
PVC Washer



Nut



Washer



Accessories Screw
3.19x16 / 5.5x25



POP Rivet
4.8x25



Concrete Screw
6.3x25



Mastic (Silicone - PU)



Polyurethane Foam



İstanbul Mavi Endüstriyel Yapı

Esentepe Mah. Şehit Mehmet Mikdat Ulu ünlü Sk. No:17 Plaza 21 D:3 Şişli / İstanbul

www.istanbulmavi.com.tr

info@istanbulmavi.com.tr

+90 212 213 62 84

