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Cold Storage Panel

Product Characteristic

- Rigid polyurethane has a low thermal conductivity and good thermal performance. When the density of rigid polyurethane is 35-40KG/M3, the thermal conductivity is only 0.018G-0.023W/(M.K), which is about half of EPS, making it the insulation material with the lowest thermal conductivity among all materials.

- Polyurethane cold storage panels have moisture-proof and waterproof properties. The closed-cell rate of rigid polyurethane is above 90%, making it a hydrophobic material that will not increase thermal conductivity due to moisture absorption, and the wall surface will not leak water.

- Polyurethane cold storage panels are fireproof, flame retardant, and resistant to high temperatures. After adding flame retardants, polyurethane becomes a difficult-to-burn and self-extinguishing material, with a softening point above 250 degrees Celsius. It only decomposes at higher temperatures. The outer layer of the polyurethane panel is covered with a cloth to isolate the foam underneath, which effectively prevents the spread of fire. Moreover, polyurethane does not produce harmful gases even at high temperatures.

- Due to the excellent thermal insulation performance of polyurethane panels, the thickness of the building's external structure can be reduced while meeting the same insulation requirements, thus increasing the indoor usable area.

- The porous structure of polyurethane materials is stable and mainly consists of closed cells, which not only provides excellent insulation performance but also has good resistance to freezing-thawing and sound absorption. The average lifespan of rigid foam polyurethane insulation structures can reach more than 30 years under normal usage and maintenance conditions. It can effectively withstand dryness, humidity, electrochemical corrosion, as well as the formation of foam materials caused by insects, fungi, or algae during its lifespan. Although the unit price of polyurethane insulation material is higher than other traditional insulation materials, the increased cost will be offset by the significant reduction in heating and cooling expenses during use within the lifespan of the structure.

- Various specifications and varieties, bulk density range: (40-60KG/M3); length range: (0.5 meters-4 meters); width range: (0.5 meters -1.2 meters); thickness range: (20mm-200mm).

- The cutting precision is high, with a thickness error of 0.5mm, thus ensuring the smoothness of the surface of the finished product.

- Convenient quality inspection. Due to removing the surface skin during the cutting process, the quality of the panel is clear at a glance, ensuring the insulation effect of the finished product. The selection of polyurethane cold storage panels is very important for cold storage, because cold storage is different from ordinary warehouses. The temperature inside the cold storage is generally lower, and the requirements for air temperature, humidity, and environment are relatively high. Therefore, when choosing polyurethane cold storage panels, we must pay attention to selecting panels that have good temperature control. If the polyurethane cold storage panels are not selected properly and the temperature inside the cold storage is difficult to control, it is easy to cause the stored products to deteriorate or make the refrigeration compressor of the cold storage work frequently, wasting more resources and increasing costs. Choosing the right panels can better maintain the cold storage. The most commonly used panel material for cold storage body is the sandwich panel with polystyrene foam material and polyurethane foam plastic as the core layer and metal as the surface material. We all know that polyurethane sandwich panels have very efficient insulation and thermal insulation performance, but their flame retardancy is rarely mentioned. However, their flame retardancy has a wide range of applications. Polyurethane foam plastics are being used in many fields. As a material that is most frequently encountered in daily life, both domestic and foreign areas of application, including transportation, furniture, and construction industries, have strict flame retardant requirements for its building materials. Polyurethane itself is not flame retardant, but if it is flame retardant during the manufacturing process of polyurethane foam boards, including Guangzhou cold storage boards and other foam plastics, it can reduce the adverse effects of flame retardant treatment on foaming processes and foam properties. However, it is important to note that it is best to use efficient, low-halogen or halogen-free flame retardants to meet environmental requirements.

Cold Storage Panel Capacity

- The quality of the cold storage panel directly affects the longevity of the cold storage, so when choosing a cold storage panel, the quality of the panel is key.

- The three main factors affecting the quality of the cold storage board are: the volume weight of the cold storage board, the thickness of the cold storage board protective board and the load-bearing performance of the cold storage board.

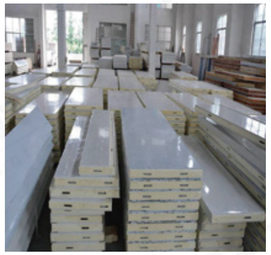
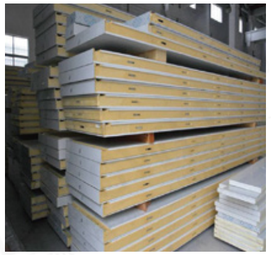
- The bulk density is the most important factor influencing the quality of cold storage panels. The bulk density refers to the density of polyurethane, and the national standard for polyurethane foam density is 40-42kg/m³.

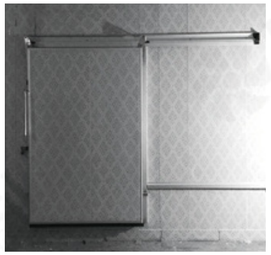
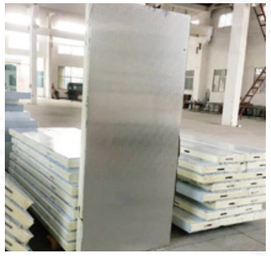


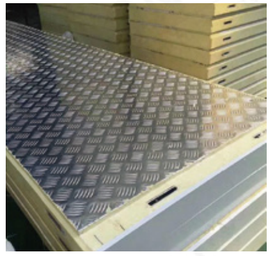




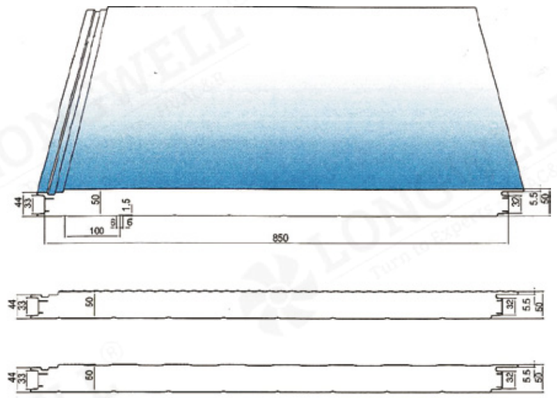




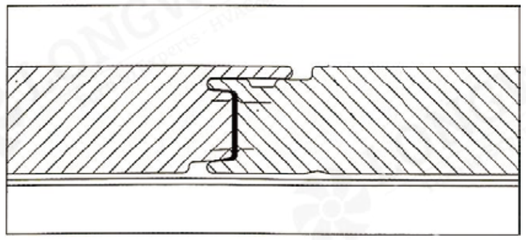

Bimetallic Polyurethane Full Flat And Small Corrugated Decorative Wallboard



Technical Parameters

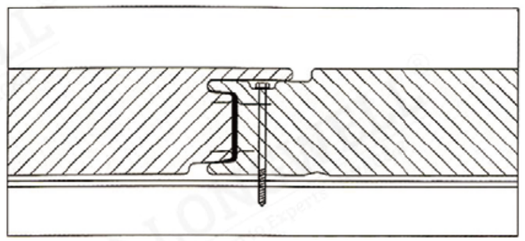
T	K (w/m.k)	Covering Thickness(mm)	Covering Weight(kg/m²)	Panel Weight(kg/m²)	Load Capacity Uniformly Distributed In(kg/m²)					KN/m²= kg/m²/102				
					60	80	100	120	150	60	80	100	120	150
50	0.43	0.5	8.63	10.5	4.45	3.85	3.45	3.15	2.8	4.95	4.3	3.85	3.5	3.15
50	0.43	0.6	10.37	12.24	4.7	4.1	3.65	3.35	3	5.25	4.55	4.1	3.7	3.35
75	0.25	0.5	8.63	11.63	5.55	4.8	4.3	3.9	3.5	6.2	5.35	4.8	4.4	3.9
75	0.25	0.6	10.37	13.37	5.85	5.1	4.55	4.15	3.7	6.55	5.7	5.1	4.65	4.15

Note: The sheet thickness 0.6mm~0.7mm is suitable for microwave coverings
The sheet thickness 0.7mm~0.8mm is suitable for flat coverings



Connect

This type of board has tongued and grooved edges at both ends, which can be installed by inserting them into each other continuously. One board has a cover at the joint to completely conceal it, so that nails are not exposed, resulting in a natural and beautiful appearance.



Fixed

Its installation nodes are relatively concealed, without the need to drill holes on both boards simultaneously, effectively avoiding the generation of cold bridges. A Φ6.5mm self-tapping nail or self-drilling screw can be used to fix one board to the purlin or keel, while the other board is inserted into it. We recommend installing as shown in the diagram.

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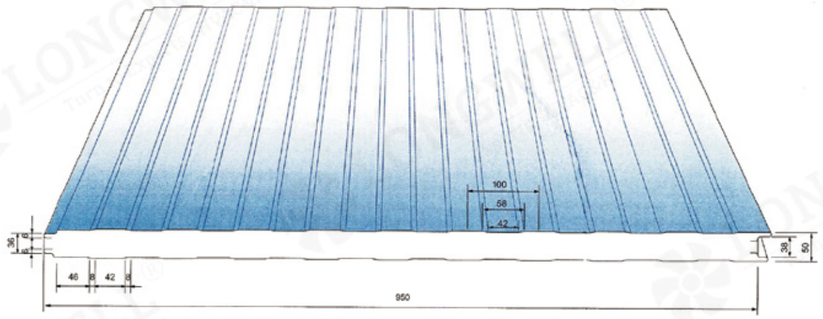
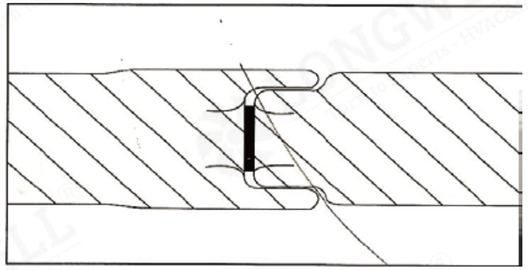
Bi-metal polyurethanewallboard



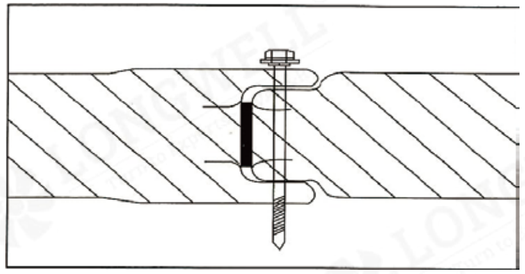
Technical Parameters

T	K (w/m.k)	Covering Thickness(mm)	Panel Weight(kg/m²)	Load Capacity Uniformly Distributed In(kg/m²)					KN/m²= kg/m²/102				
				60	80	100	120	150	60	80	100	120	150
50	0.43	0.5	10.13	3.85	3.35	3	2.75	2.45	4.35	3.75	3.35	3.05	2.75
50	0.43	0.6	11.87	4.05	3.5	3.15	2.85	2.55	4.55	3.95	3.5	3.2	2.85
75	0.25	0.5	11.63	5.55	4.8	4.3	3.9	3.5	6.2	5.35	4.8	4.4	3.9
75	0.25	0.6	13.37	5.85	5.1	4.55	4.15	3.7	6.55	5.7	5.1	4.65	4.15
100	0.19	0.5	12.38	6.2	5.4	4.8	4.4	3.9	6.95	6	5.4	4.95	4.4
100	0.19	0.6	14.12	6.55	5.7	5.1	4.65	4.15	7.35	6.4	5.7	5.2	4.65



Connect

This type of board has a tongue and groove design on both ends, allowing for seamless installation through continuous interlocking.



Fixed

Secure with Φ5.5mm self-tapping screws or self-drilling screws to the rafters or joists.