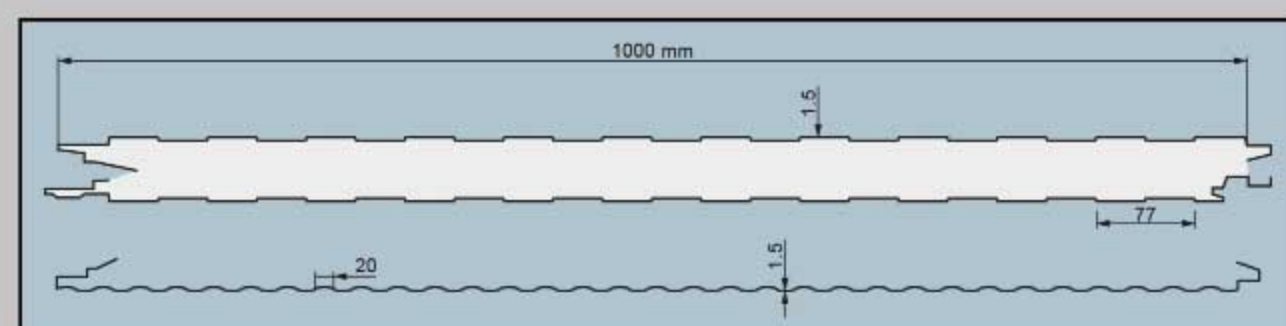
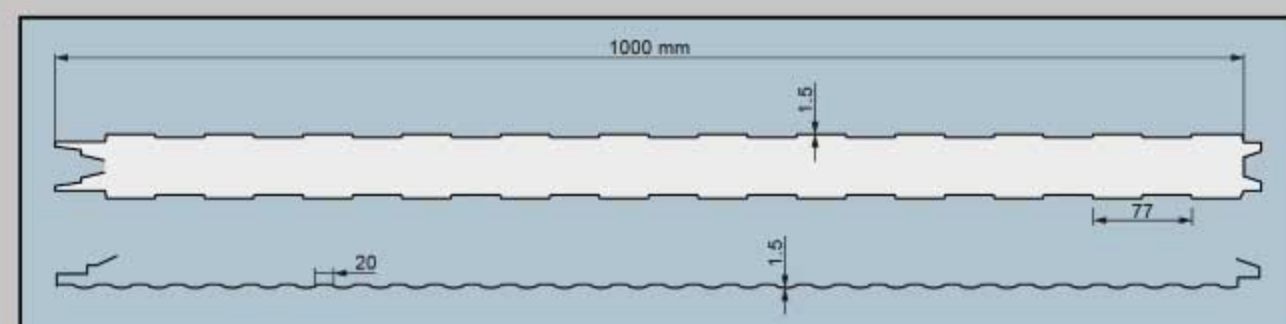


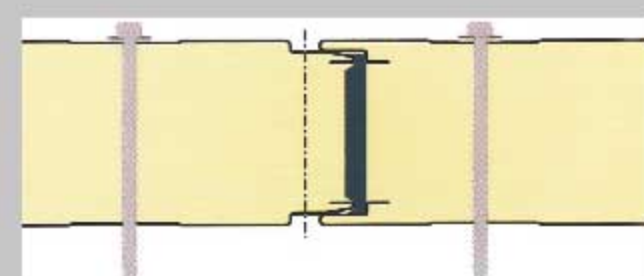
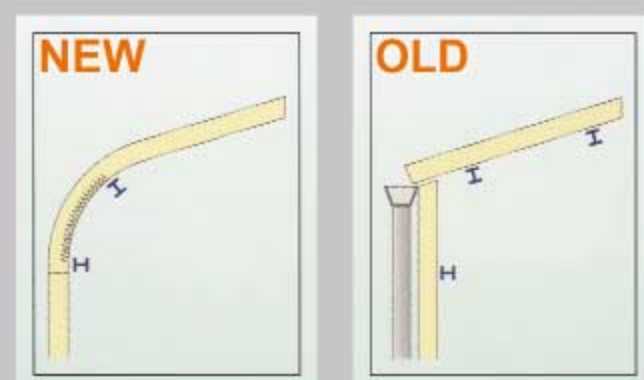
● **Wall Sandwich panel**

Facade wall panels designed under license in Europe and Due to better user interface, and now it is also used in countries ranging from Germany and Italy and Spain.



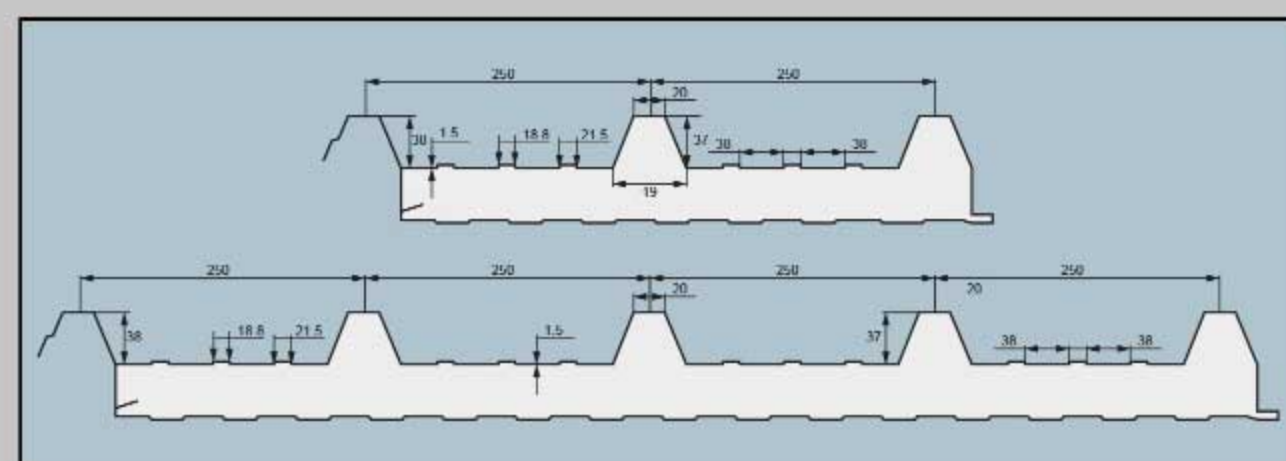
Panel Details	Thickness d	Material Durability (Outside) I <sub>N</sub>	Material Durability (Inside) I <sub>N</sub>	Max. Available Length	Weight	Thermal Resistance R	Thermal Penetration Coefficient	Calculated Noise Resistance R <sub>W</sub>
Hemboard/Thimboard 1000	mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> /k/W	W/m <sup>2</sup> /K	db
	40	0.50	0.50	0.20	10.3	1.56	0.58	25
	60				11.1	2.36	0.39	
	80				12	3.16	0.30	
	100				12.9	3.96	0.24	
120	13.9				4.76	0.20		

**SANDWICH PANEL WALL**

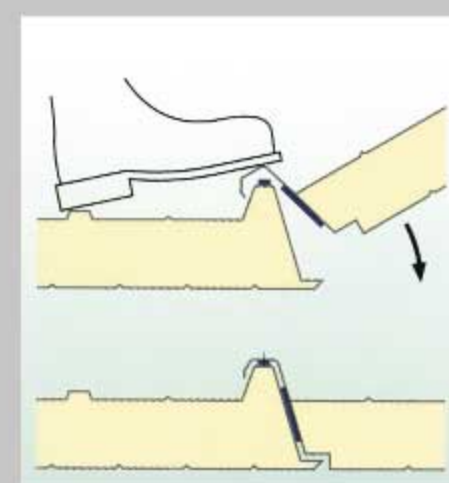


● **Roof Sandwich panel**

View of the ceiling panel according to the research and a technical difficulty in producing some of the previous companies were in Iran, were redesigned, With regard to flexural strength and more and better sealing and gasket is produced.



**SANDWICH PANEL ROOF**



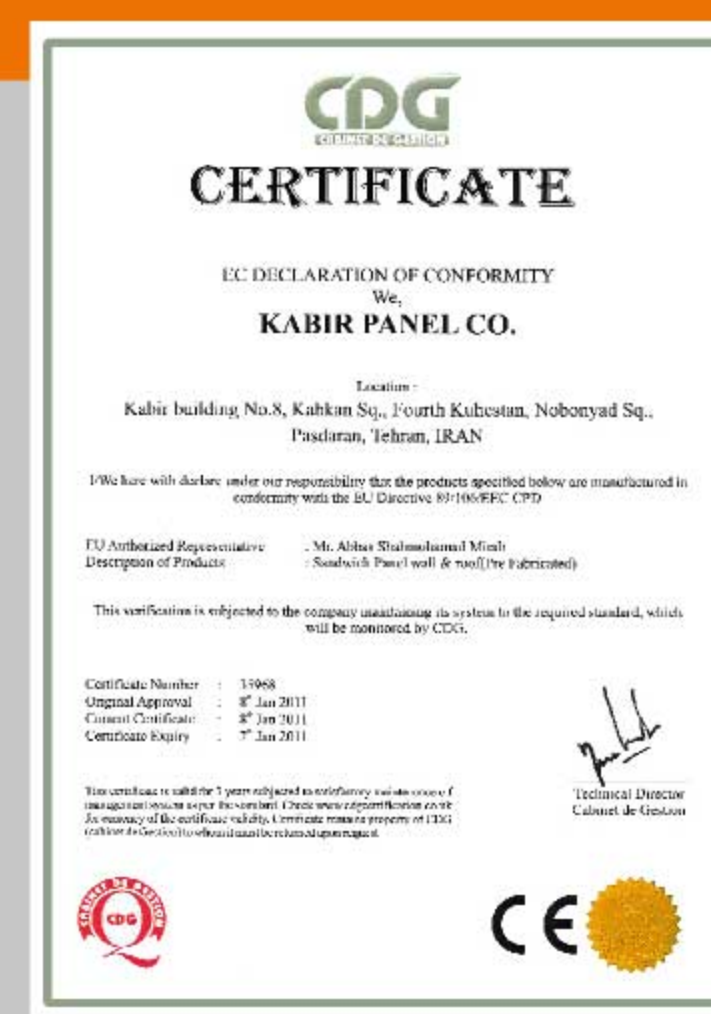
Prepainted Galvanized Steel Thickness of External Sheet (mm)	Thickness of Internal Sheet (mm)	Spend (cm)	Many Supports								
			PU (mm)	100	125	150	175	200	215	240	265
0.50	0.50	40	200	157	130	112	95	85	70	56	53
		50	283	215	182	161	133	122	101	86	78
		60	358	284	235	213	174	152	132	113	101
		70	405	344	290	257	208	191	164	142	128

● **Table of Heat transfer coefficient**

Glass Wool (λ=0.035)	Brick (λ=0.59)	Concrete (λ=0.65)	Kabir Sandwich Panel (λ=0.018)									
40	40	40	200	150	100	80	60	50	40	35	Thickness	
0.88	14.8	16.25	0.09	0.12	0.18	0.22	0.30	0.36	0.45	0.51	Heat transfer coefficient	

# KABIR PANEL PU

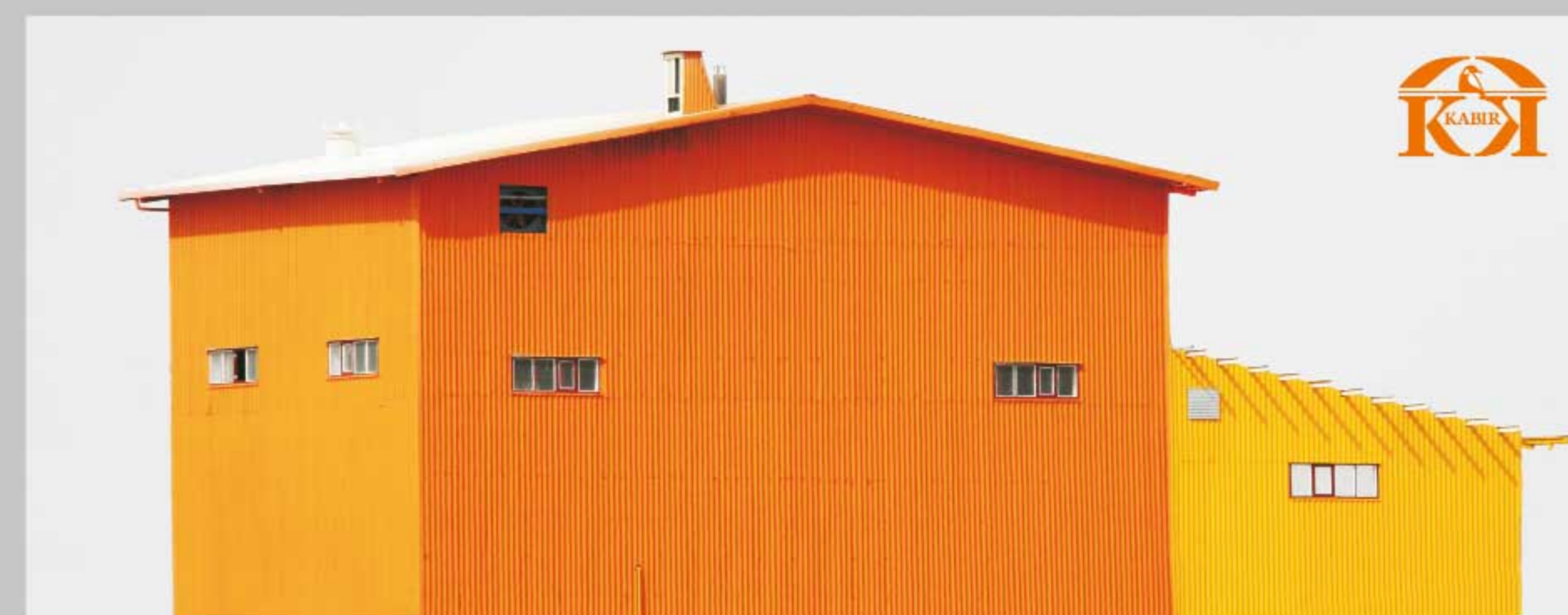
# KABIR PANEL PU



The first quality network member in IQNET

ISO 2008-9001 certified for Quality Management System

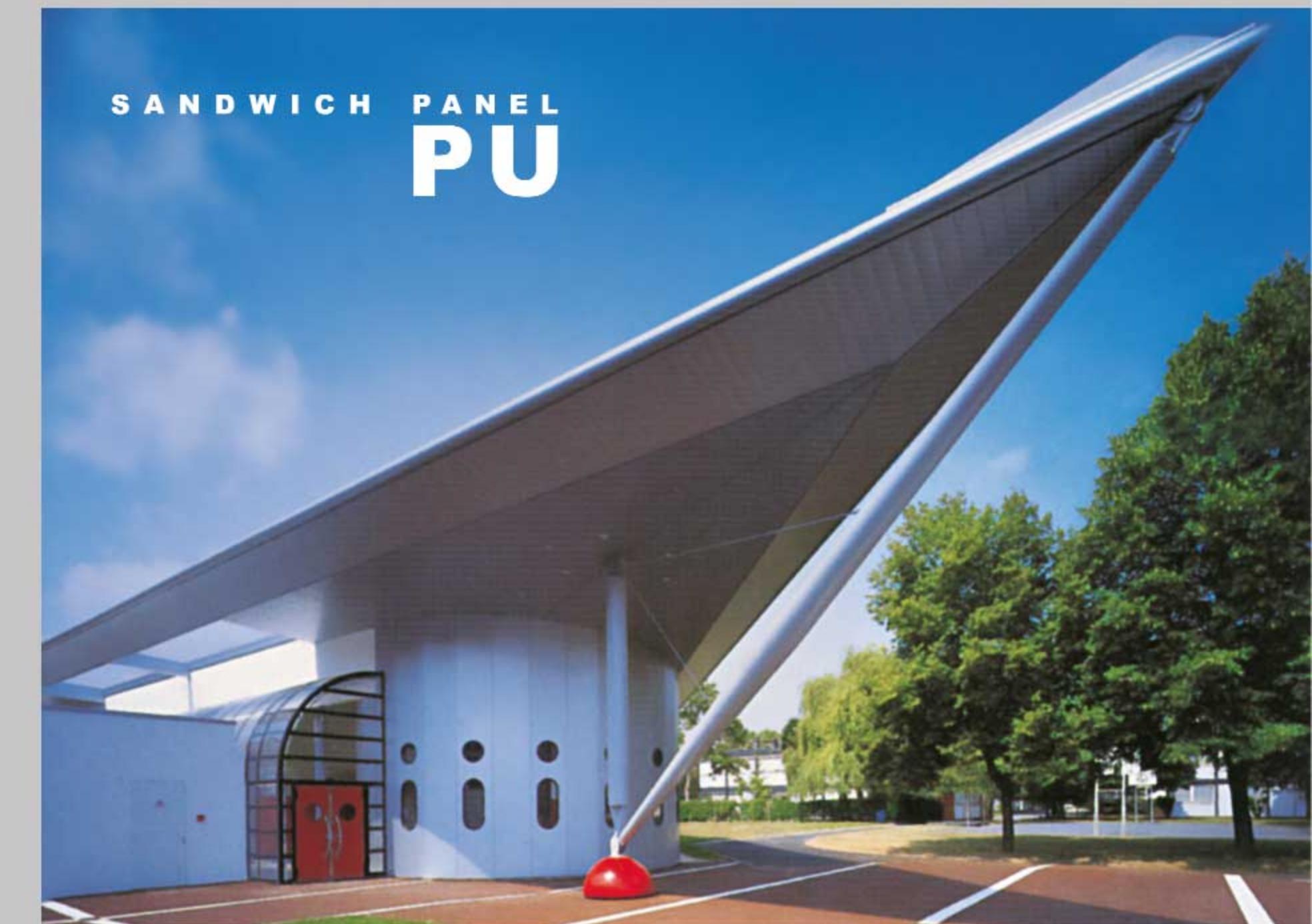
The first and only holder certificate CE



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**● About Kabir Panel**

Kabir PANEL with a brilliant reputation in manufacturing products: Kabir PANEL experienced in manufacturing of more than five million square meter ceiling and wall sandwich panel with poly urethane foam, and utilizing one of the most updated and progressive European production lines – Continuous, with its knowledgeable and trained personnel, is honored to present technical details of its productions to the esteemed managers, executives, and public and private industrial consultants.

**● Technical specifications of Kabir sandwich panel**

Kabir panel thicknesses are 2, 4, 5, 6, 8, 10 cm and with 1 meters wide and the variable Length is available upon customer request. Cover sheets can be made of plain galvanized or color-coated galvanized, plain or color-coated aluminum, foil, and aluminum and or Kraft paper. The foam inside sandwich panels is also made of polyurethane with special weight which is equivalent to 25 to 60 kg on the cubic meter. The solid foam resistant against solvents, lubricants, mineral oils, acids and dilute bases and inappropriate smoke produce by factories and also fungi and microbes and it is undoable at all. Kabir panel resistant against plants growth, odorless and also danger less for human health and animal is the special privilege of this panel. And because it is Impossible for vermin to live inside the foam, it has been the best type of insulator consumption in all kinds of the ceiling and wall coverage and cold storages.

**● Sandwich panel with a side metallic coating**

The produced Sandwich panels from one hand with metallic coating and on the other hand with aluminum foil or paper is the best material for covering false ceiling and industrial buildings and warehouses on the silos.the other use of this type of panel is to cover the old or brick walls for facing and cooling insulation (145 till 140+150) and sound insulation.

**● Panel made up of two side paper**

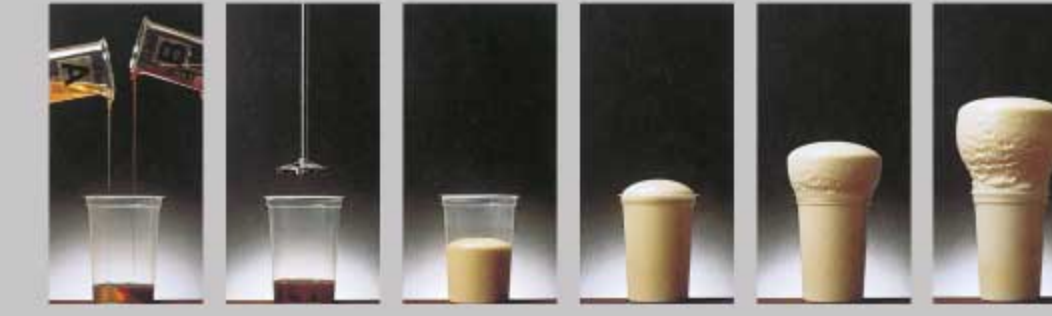
One type of panel products is made of both sides of paper with thickness of 4 to 10 cm. Which it is suitable for the thermal insulation in roof of residential and industrial buildings. And in cold storage floor too.

**● Main use of Kabir panel**

- 1, Earthquake resistant
- 2, Increase the useful life of buildings and facilities
- 3, Speed and accuracy in making and building
- 4, Recyclability of materials and reduced consumables
- 5, Prevent heat and cold loss
- 6, Economically feasible in traditional materials



**POLY + ISO = PU**



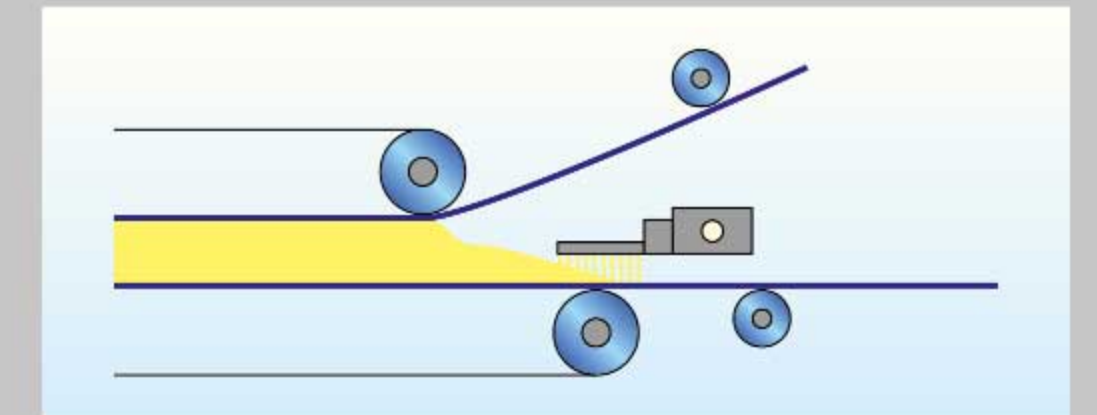
**● Polyurethane foam and its applications**

Hard polyurethane foams is now one of the best materials known with the ability to work with applications in thermal in various fields of industrial and construction... Some Examples of these can be made in wall and roof sandwich panels, cold storages, the insulated tanks, and also outlined tanks and Fluid pipes.

**● The quality of Polyurethane foam production**

For the production of polyurethane foam, which is called the RCMP always need two categories of chemicals named:

- 1, Polyol
- 2, Isosianat



**● Specifications of Cover sheets of Kabir sandwich panel**

Galvanized sheet thicknesses are 0.5 mm with 2.75 gram Square meters Zink which is covered on the both side and the average thickness of the galvanized coating on both sides is about 50 microns. These sheets can be as plain or color-coated. Aluminum sheet with thickness of 0.7 and 3105 alloy has Plain form and pre-printed with three -layers with the thickness of 20 microns.

**● Kabir sandwich panels used sheets have this technical characteristics structure are as follows:**

- The thickness of external sheet layer 0.5 (In Galvanized Panels)
- The thickness of internal sheet layer 0.5 (In Galvanized Panels)
- The thickness of external sheet layer 0.7 (In Aluminum Panels)
- The thickness of internal sheet layer 0.7 (In Aluminum Panels)
- The thickness of external sheet layer 0.5 (In Alvzyng)
- The thickness of internal sheet layer 0.5 (In Alvzyng)
- Reinforced aluminum foil (pull cord) with SUBS 80 and aluminum foil layer 0.09

**● Table of Kabir sandwich panels with different coatings**

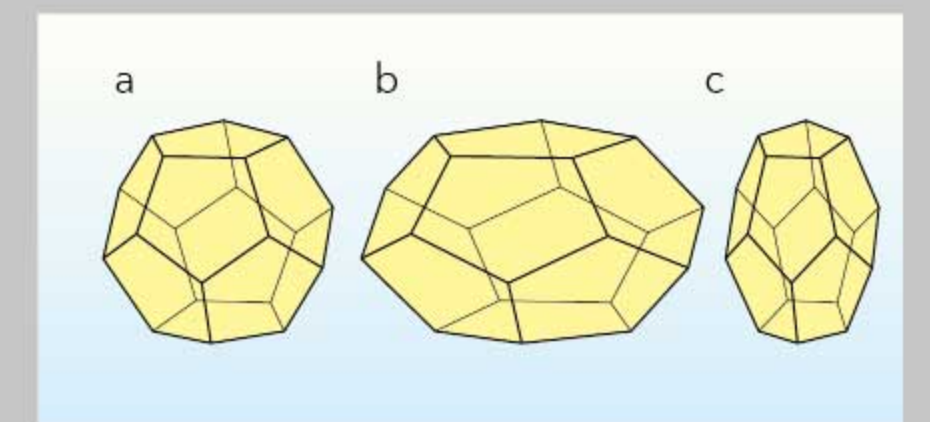
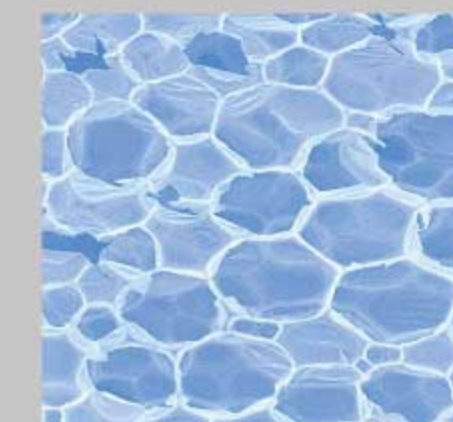


external / internal	Color-coated Galvanized	Plain Galvanized	Color-coated Aluminum	Plain Aluminum	Color-coated Alvzyng	Plain Alvzyng
Color-coated Galvanized	✓	✓	✓	✓	✓	✓
Plain Galvanized	✓	✓	✓	✓	✓	✓
Color-coated Aluminum	✓	✓	✓	✓	✓	✓
Plain Aluminum	✓	✓	✓	✓	✓	✓
Color-coated Alvzyng	✓	✓	✓	✓	✓	✓
Plain Alvzyng	✓	✓	✓	✓	✓	✓
Reinforced aluminum foil	✓	✓	✓	✓	✓	✓

**● On the rout of producing foam, there is a need for another material**

Such as:

- 1, Blowing Agent
- 2, Activators
- 3, Foam stabilizers
- 4, Surfactants



Note that by combining these materials with each other a noticeable heat is produced which will be spent on Evaporation of volatile materials such as (Blowing agent) .this causes the expansion of the Produced foam.

One of the Properties of these materials are to produce different knowledge and ability to bind to different layers of metallic and non metallic without need of any glue and with require capacity and different sizes.