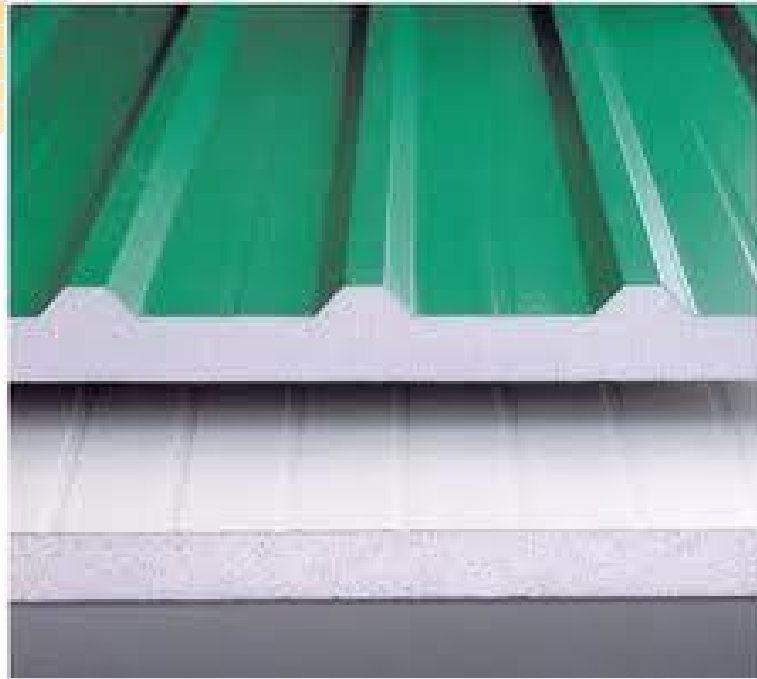


Tpanels



INSULATION & STRENGTH
-the perfect mix

ADDIS ABABA, ETHIOPIA.

INTRODUCTION : INSULATION & STRENGTH -

THE PERFECT MIX :

These lightweight, high strength EPS Sandwich Panels consist of an Expanded Polystyrene Core Sandwiched between Pre-painted Galvanized Steel sheets. This combination provides excellent Insulation & strong Structural support.



Lock jointing system provides an aesthetically pleasing flush surface finish. The added advantage of weather tightness & a continuous vapour barrier make it the ideal material for all manner of free standing Insulated buildings.

Panels provide for the Cost effective construction of Energy efficient, controlled environments. They are well suited to maintaining very High Hygiene standards, which make them ideal for Cold stores, Freezers, Chillers, controlled Atmosphere Stores, Industrial Buildings, Warehouses & Insulated Truck Bodies. They can also be used for Workshops, portable on-site offices, partition wall for commercial and residential buildings & all manner of buildings where an economical, light weight low maintenance building structure is required.

SPECIFICATIONS :

CONSTRUCTION

Panels consist of a core of EXPANDED POLYSTYRENE laminated with two outer skins of Pre-painted galvanized steel sheet.

PANEL SKINS

Standard Panel Skins are of 0.4mm Galvanized Steel Sheet as per ASTM A - 36 with Broken White Paint Coating. The Buckling Stress & Tensile Strength for Panel are 633Kg/cm² & 1687Kg/cm² respectively. The panels are available with a flat & Ribbed profile. Other thicknesses & color of the skin sheets are also available depending upon the requirement of the customer.

CORE

Is of Self -Extinguishing grade, Resistant to almost all Aqueous Media including Dilute Acids & Alkalis, Methanol, Ethanol & Silicone Oil Expanded Polystyrene. EPS is environmentally friendly, containing no CFCs or HCFCs. In a fire situation EPS generates less heat & smoke as compared to most timbers & wood based products. EPS has exceptional Insulation properties, with a thermal Resistance (R value) of 1.31 per 50mm of thickness, because of its cellular structure EPS is dimensionally stable & will not settle over time. EPS used & installed correctly does not deteriorate with age & as such is able to deliver constant R values for the life of the building. EPS is an inert, organic material & therefore will not rot & is highly resistant to mildew. It provides no nutritive value to plants, animals, micro organisms or rodents, so is really ideal for wall paneling/ partitions of large Industrial buildings & offices.

IN-SERVICE TEMPERATURES

The maximum recommended, continuous operating temperature is 65°C. However, panels will be unaffected by temperatures of 70 °C-110°C for short periods—such as hot water cleaning etc.

PANEL WIDTH & LENGTH

The standard width of the panel is 900-1190mm & length can be manufactured to the transportable length or as per the requirement of customer.

PROPERTIES :

THERMAL TRANSMITTANCE

The most important property of panels is its Thermal Transmittance of U-factor, This is the quantity of Heat in W/M² °C flowing through 1M² of panel in 1hr when there is a difference of temperature of 1°C between the air temperature on each side of the Sandwich Panel.

S.No.	THICKNESS	U-FACTORS
1.	50mm	0.625 W/M ² °C
2.	75mm	0.414 W/M ² °C
3.	100mm	0.324 W/M ² °C
4.	125mm	0.256 W/M ² °C
5.	150mm	0.210 W/M ² °C
6.	175mm	0.165 W/M ² °C
7.	200mm	0.131 W/M ² °C

S.No.	TYPE OF BUILDING MATERIAL	U-FACTOR	RATIO
1.	Sandwich Panel 75mm	0.414 W/M ² °C	1.00
2.	200 Hollow Concrete block	1.817 W/M ² °C	4.38
3.	229mm Brick work	2.044 W/M ² °C	4.93
4.	Asbestos Cement/ Plaster board	3.804 W/M ² °C	9.18

U-FACTOR OF SANDWICH PANEL COMPARED TO OTHER BUILDING MATERIALS

MECHANICAL LIMITATIONS & WEIGHT OF ARTECH PANELS

S.No.	THICKNESS	MAX. FREE SPAN
1.	50mm	4.80 M
2.	75mm	5.25 M
3.	100mm	6.00 M
4.	125mm	6.50 M
5.	150mm	6.75 M
6.	175mm	7.00 M
7.	200mm	7.25 M

S.No.	THICKNESS	WEIGHT/M ²
1.	50mm	10.38Kg
2.	75mm	10.49Kg
3.	100mm	11.28Kg
4.	125mm	11.73Kg
5.	150mm	12.18Kg
6.	175mm	12.63Kg
7.	200mm	13.08Kg
8.	250mm	13.98Kg

DURING MANUFACTURING WEIGHT MAY VARY BY ± 10%

APPLICATIONS OF Tpanels



FACTORY BUILDING



OFFICE & MALL COMPLEX



COLD STORE WAREHOUSE



REFRIGERATED VAN



PORTABLE HOUSE



WAREHOUSE

**WE ARE PROUD NOT JUST OF OUR WORK,
BUT OF THE RELATIONSHIPS, TRUST & TEAMWORK THAT
HAVE MADE EACH JOB POSSIBLE.**



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