

AFRICHILL

Prefabricated sandwich insulated panels are generally used in cold freezer rooms, and now in big demand for prefabricated houses and factories. It is the future for construction as other continents has already adapted to this method due to its energy saving, strength and quick assemble aspects.

Insulated panels that we manufacture is of (EPS) expanded polystyrene as a core and cladded on both sides with generally 0.5mm to 0.8mm chromadeck steel or Zinalum.



This chromadeck steel is glued with a 2ply (PU) polyurethane glue on the EPS. When the EPS is boxed on both sides of the EPS with chromadeck it makes it strong and durable



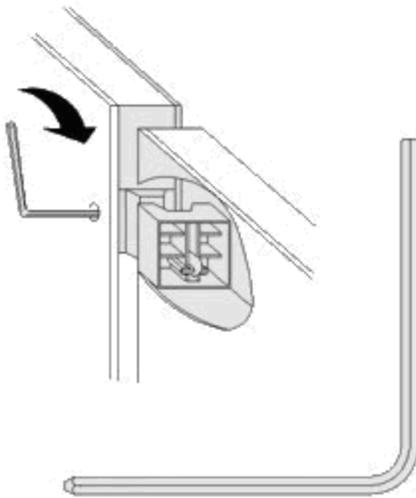
Panel manufacturers use different types of insulation mainly EPS, PU and rock wool. We use only EPS insulation due to its strong structural strength. All EPS panels that are manufacture by Africhill is fire retardant. Generally EPS panels are made with a lot of hand labour, but with our (and some competitors) continues sandwich panel machine it is mostly automatic, computerized and mechanically driven.



Insulated panels must have a tong and grove joining system for strength, stabality and insulation purposes. Panel manufacturers have different type of tong and grove systems. Africhill has a joining methon that secure`s insulation right through the joint. (EPS touches between panels)



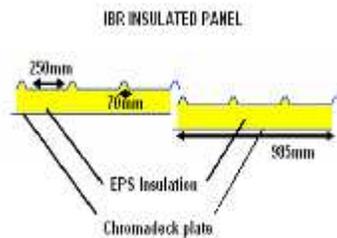
The two other methods for PU type panels that are most common are cam lock and interlocking methods.



Insulated panels are generally made in different thickness, from 40mm to 300mm thick. The thickness choice is dependant on the type of application the insulated panel will be used for. As an example, a standard cold room in Johannesburg requires 75mm 16kg/m³ EPS panel. For a standard cold room in Swaziland it would require 100mm 16kg/m³ EPS panel. This is dependant on the ambient temperature where the cold room would be erected. The other aspect would be the temperature inside the cold or freezer room required.



On bigger warehouse type cold freezer rooms the height of the cold freezer room is generally very high. It would be vital to select a thicker insulated panel for more structural strength. The corrugated type of insulated panels that we manufacture is becoming very popular in factories.



Insulated panels are made up to a maximum of 12m. Due to the fact that the transporting method is limited. Each thickness will also have a maximum span, without being supported.



The prefab and low cost industry has changed there technique to the same as cold/freezer rooms. Insulated panels are energy saving. If you have an air conditioner in an insulated panel house it would save 50% of the energy costs and you can downsize on the air conditioner selection to.



Here at Africhill we are also busy developing chromadeck steel panels with a wood and brick finish. This is aimed especially at the low cost and prefab industry.