



**COMPANY PROFILE**

# / About The Insulation Company

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The Insulation Company SA (Pty) Ltd (TIC) is a South African manufacturer and supplier of high-quality Metal Insulated Sandwich Panels (MISP) and Flexible Faced Boards (FFBs).

TIC is a majority Black owned manufacturing entity. It has a partner in Italian based Metecno SPA, who are globally known as pioneers of the technology of insulated sandwich panels. The Industrial Development Corporation of South Africa (IDC) provided funding for TIC. The Department of Trade and Industry (Dti) of South Africa similarly provided Grant Funding under the Black Industrialists Scheme (BIS).

TIC aims to become the leader in the manufacturing and supply of MISP and FFB in Africa to cater for the needs and benefit of various sectors and sub-sectors within the construction and built environment. This will cover cold chain, cleanroom, commercial and industrial buildings, including residential housing needs with reach into modular and low-cost housing needs.

The Sandwich panels will strictly utilise high quality insulation chemicals and materials like Polyisocyanurate, Rockwool and Polyurethane. The panels will provide quality solutions for roofing and wall structures suited for the harsh African environment. Our products have superior insulating qualities, are energy efficient, fire resistant and highly portable in the erection of whatever size building including being recyclable. These many qualities squarely address the challenges of climate change, food production and security and ultimately to address poverty in the continent.

At The Insulation Company we believe the business model and strategies adopted will assist in achieving the much-needed environmental cleanliness and food security for mankind and all living species.



## / Vision

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To be the leading African manufacturer and supplier of high-quality Metal Insulated Sandwich Panels (MISP) and Insulated Flexible Faced Boards (FFB).

## / Mission

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- To enlighten the market on thermal insulation
- To provide quality thermal insulation
- To satisfy customer needs and expectations
- To gain significant market share
- To develop skills
- To generate profit
- To undertake Research & Development

## / Values

RESPECT

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EFFICIENCY

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QUALITY

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UBUNTU

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INTEGRITY

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TEAMWORK

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INNOVATION

# Our Products

TIC manufactures and supply High-Quality Metal Insulated Sandwich Panels (MISP) and Flexible Face Boards (FFB's).

## Metal Insulated Sandwich Panels (MISP)

Metal Insulated Sandwich Panels (MISP) are prefabricated insulation elements used in roofs and walls. They consist of two thin metal cover sheets, which are bonded to one another on a core of insulation material. The metal cover sheets may be steel, aluminium, or some variation of the two. The insulated cores will consist mainly of rigid polyurethane (PUR) or polyisocyanurate foam (PIR).



## Flexible Faced Boards (FFB's)

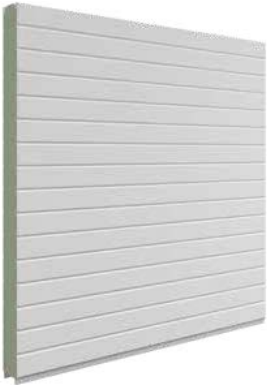
Flexible Faced Boards (FFB's) are sandwich panels in which the facings are thin flexible materials such as brown craft paper, metal foil or various types of fiberglass, as opposed to the metal sheeting used for MISP. FFBs can be inserted into the physical structure of a building (inside walls, underneath floors) for insulation.



## / The Benefits of Our products

- Sustainability – Low maintenance cost and has long lifespan.
- Environmentally Friendly – Consumes less water during production, made of recyclable material.
- Energy Efficient – The high insulating values in the cooling and heating sector provide further energy savings.
- Higher Fire Safety Rating – Can withstand fire longer compared to other building materials.
- Building Ambience – Excellent thermal insulation properties (e.g. during hot weather conditions, the building can remain cool inside and vice versa during cold weather conditions).
- Weather Friendly – Suitable to work/ use under different weather conditions.
- Aesthetics – Panels are available in a cast array of colours and able to compliment different architectural building structures.
- Retrofitting – Panels can be used on existing buildings.
- Easy and light to work with.
- Labour Costs – Better control of labour costs.
- Project Cost – Better cost control of project.
- Material Usage – Requires less additional materials.

## / Locally Manufactured Products – MISP



### *Metal Insulated Sandwich Panels (MISP)*

*Metal Insulated Sandwich Panels are prefabricated insulation elements used in roofs and walls.*

*They consist of two thin metal cover sheets, which are bonded to one another on a core of insulation material. The metal cover sheets may be steel, aluminium, or some variation of the two.*

*The insulated cores consist of rigid polyurethane (PUR) or polyisocyanurate foam (PIR).*

*Sandwich panels are produced by continuous production processes and cut to ordered lengths. The metal surfaces may be flat, lined, trapezoidal or corrugated profiles, depending on customer requirements.*

#### Roof and Wall Thicknesses

- 40mm
- 50mm
- 60mm
- 80mm

*TIC supplies panels measuring from 40mm up-to 180mm thickness.*



# / Metecno Agency For Metal Insulated Sandwich Panels (MISP)



ROOF
Toproof
Monorooft
Hipertecroof
Metcoppo
Metonda



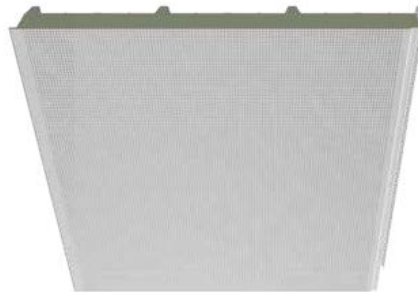
TOPROOF® G3



TOPROOF® G5



MONOROOFT®  
Centesimale & Lamanito Plastico



HIPERTEC® Roof Sound



HIPERTEC® Roof



METONDA®



METCOPPO®



# / Metecno Agency For Metal Insulated Sandwich Panels (MISP)



SUPERWALL®



SUPERWALL® ML

WALL
Superwall
Hipertecwall
H-Wall



HIPERTEC® Wall



HIPERTEC® Wall Sound



# / Locally Manufactured Products – FFB

## FFB - Flexible Faced Boards

Flexible Faced Boards are sandwich panels in which the facings are thin flexible materials such as brown craft paper, metal foil or various types of fiberglass, as opposed to the metal sheeting used for MISF.

FFBs are used to thermally insulate any type of building, with any type of structure and/or material, either new or existing.

They can be used to insulate floors, walls, ceilings and roofs in a variety of application system.

Applications can be over purlins, over cement, steel or wood, cavity walls, curtain walls, ceilings, under soffits and external insulation ETICS.



FIBERGLASS  
CARRIER



ROOF + WALL



PROTECTIVE  
SUPPORT

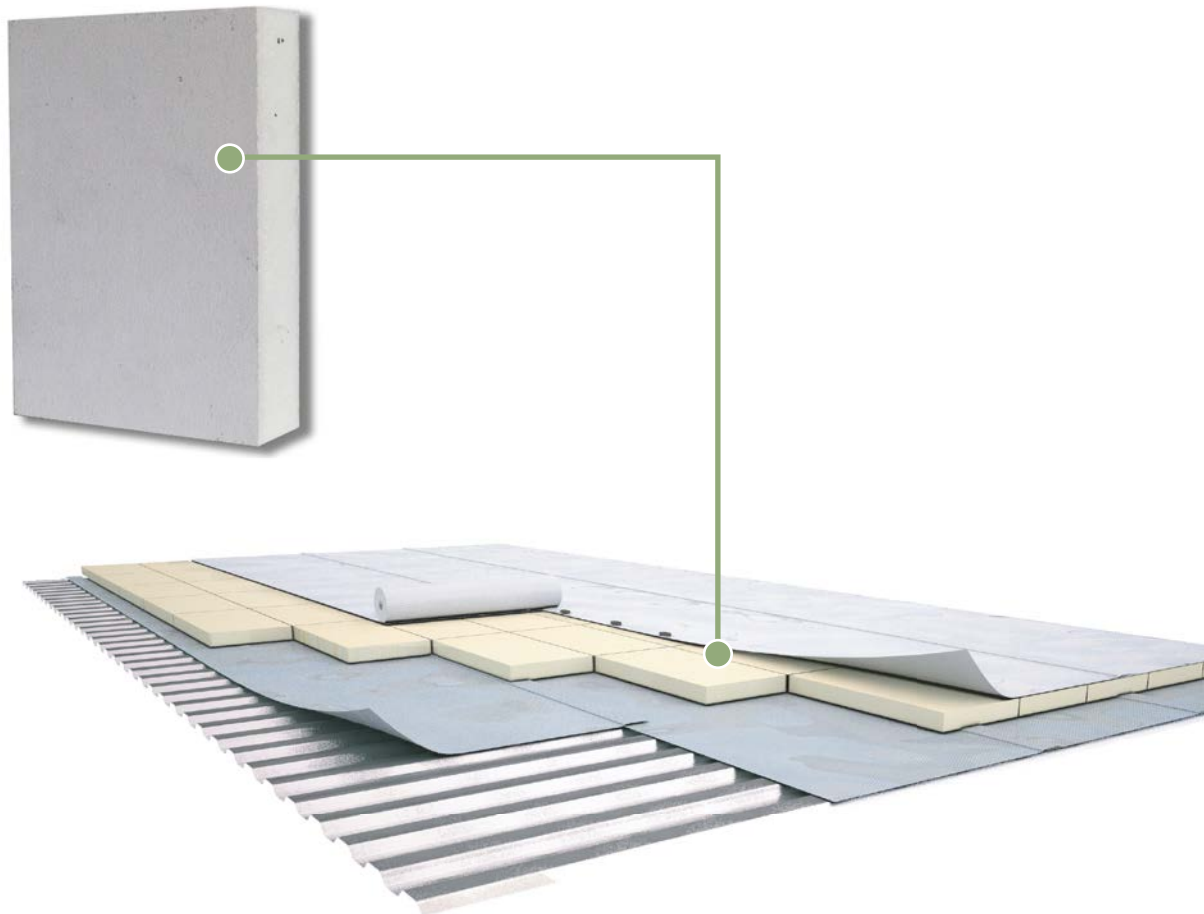


COLD  
APPLICATION

### FFB Thicknesses

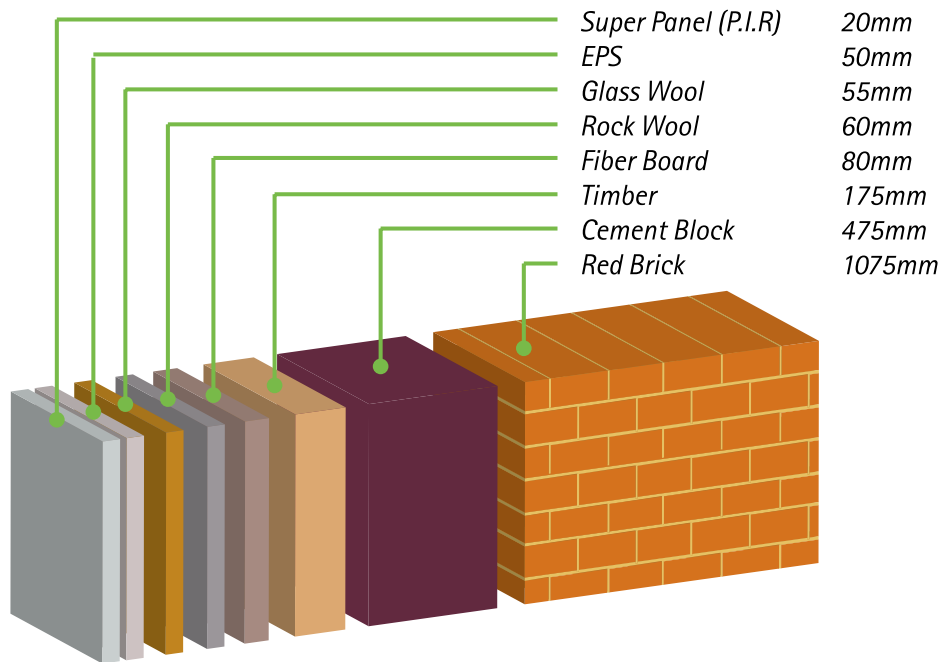
- 40mm
- 60mm
- 80mm

TIC supplies FFB measuring from 40mm up-to 100mm thickness.





# Comparison of building materials



## POLYURETHANE – MANUFACTURED BY TIC

Polyurethane is a relatively new product, roughly around 35 years.

Polyurethane has one of the lowest moisture Permeability ratings of any product (1,2 rating).

Polyurethane is not a source for fire, on it's own, it will not burn. It is a thermal-set plastic. This means, that it will not melt. It is not affected until temperatures reach 1000 degrees.

Polyisocyanurate is not a source for fire, on it's own, it will not burn. It is a thermal-set plastic. This means, that it will not melt. It is not affected until temperatures reach 1000 degrees.

The density of a product will determine the strength of it. The density of rigid polyurethane foam (PUR/PIR) used for thermal insulation in buildings normally ranges between 30 kg/m<sup>3</sup> and 45 kg/m<sup>3</sup>. However, it can reach 100 kg/m<sup>3</sup> for some applications.

Polyurethane is resistant to most counter chemicals.

WIND LOAD - 290-320 KM/H  
(Category 5 storms are winds greater than 250 km/h).

## POLYSTYRENE PANELS – OTHER MANUFACTURERS

EPS has been around for over 50 years.

The permeance rating on EPS is 2.0 to 5.0.

EPS has no thermal-set plastic and will begin to soften at temperatures of 180 degrees, and melt at temperatures of 240 degrees.

The density of a product will determine the strength of it. EPS density range is about 11 to 32 kg/m<sup>3</sup>.

EPS react violently to petroleum based products. PL 400 and liquid nail will literally burn thru EPS.

WIND LOAD - 220-260 KM/H  
(Category 5 storms are winds greater than 250 km/h).

# Target markets in the built environment

RESIDENTIAL	COMMERCIAL	INDUSTRIAL	COLD STORAGE	CLEANROOMS
RDP Housing	Airport Hangars	Factories	Food Packaging	Pharmaceuticals
Affordable Housing	Hotels	Warehouses	Meat Processing	Automotive Spray Booths
Middle Income Housing	Tourism	Healthcare	Beverage Storage	Watch Makers
Back-Rooms	Offices	Educational	Agro-Processing	Semi Conductor Rooms
Up-Market Housing	Shopping Malls	Military	Refrigerated Warehouses	Micro Electronics Rooms
Cottages	Gymnasiums	Automotive	Retail Refrigeration	Solar Industry
Estate or Gated Housing	Stadiums	Poultry Coops	Refrigeration	IT Server Rooms
Many More	Many More	Many More	Many more	Many More







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