

Rock Wool Core Panel



Rock Wool is a high quality resin bonded slab, with a predominantly vertical fibre structure. The product provides an insulation core for use in sandwich panel systems. Rock Wool panels offer a significant contribution towards improved fire safety.

If exposed to fire, Rock Wool will not release dense smoke and will withstand temperatures in excess of 1000°C.

Advantages:

- Excellent thermal & acoustic properties
- Fire safe
- High compressive strength
- Dimensionally stable
- Water repellent
- Chemically inert
- Completely recyclable
- CFC and HCFC free

Disadvantages:

- The price is higher
- The panels are fragile and need to be handled carefully
- The panels can delaminate with dynamic loading of excessive foot traffic
- The core materials are imported which adds 10-12 weeks lead time to the start of installation
- The high panel weight requires mechanical equipment for installation

Non-Combustible/ Fire Rated Panels

For use in:

*Chill/ Cold Rooms

Food Process Areas

Compartmental Walls

Temperature Controlled areas

Around oven or fat frying areas

Chemical Storage Areas

Clean Rooms

Laboratories

Hospitals

Plant Rooms

*When used in cold room applications care should be taken to ensure adequate vapour sealing can be carried out.

Technical Data

Performance of the panel varies with thickness and the following table gives recommended usage limits

Span data for Rockwool core panels:						
Core Thickness (mm)	Max. Un-supported Wall Height (mm)	Panel Weight (0.6mm coil) (kg/m ²)	Max Un-supported Ceiling Length (mm)	Panel Weight (0.7mm coil) (kg/m ²)	'U' Value (W/m ² .K)	'R' Value (m ² .K/W)
50	5000	14.5	3000	15.75	0.80	1.25
75	6000	17.25	4000	19.25	0.53	1.88
100	7000	20	5000	22.5	0.40	2.50
125	7500	22.75	6000	25.9	0.32	3.12
150	8000	25.5	7000	29.25	0.20	5.00

All maximum ceiling spans must be reduced by 25% if exposed to direct sunlight.

Because of the attitude towards the use of composite sandwich panels in food processing factories, in particular, it is necessary to consider the use of these types of panel and the areas in and around which they are intended for.

In order to obtain the best result when using these panels it is important that a proper design procedure is followed:

- Full fire risk assessment of the building and processes (high or low risk)
- The need for self-contained and stable enclosures and compartmentation
- The combustibility and fire performance of the panel core
- Panel joints and fixing detail.
- Full consideration given to active, as well as passive, fire suppression systems.

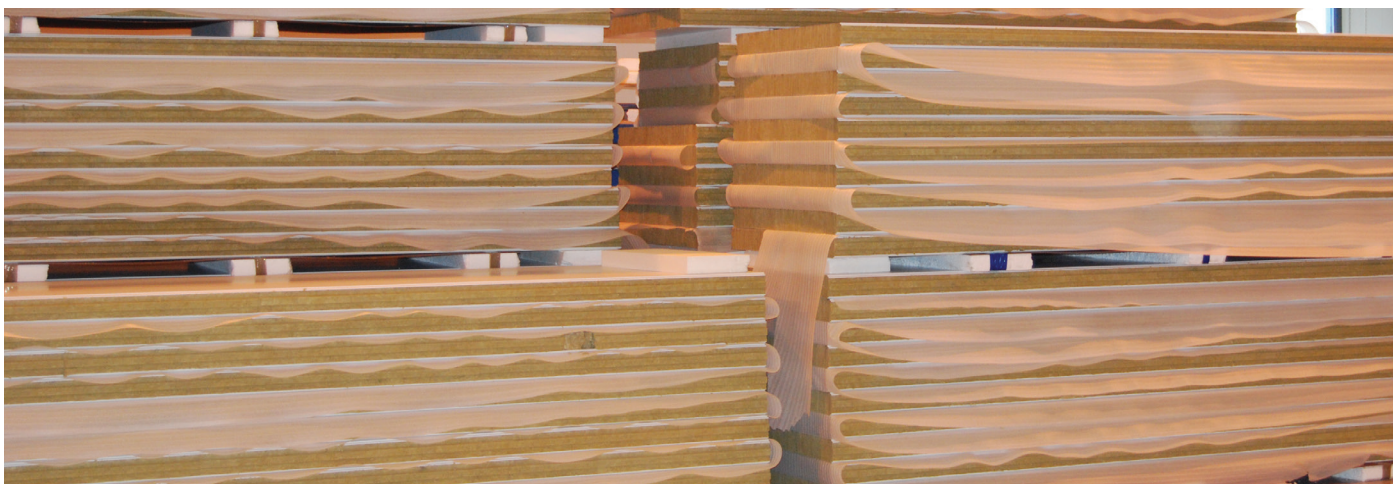
In short, a complete fire safety management approach.

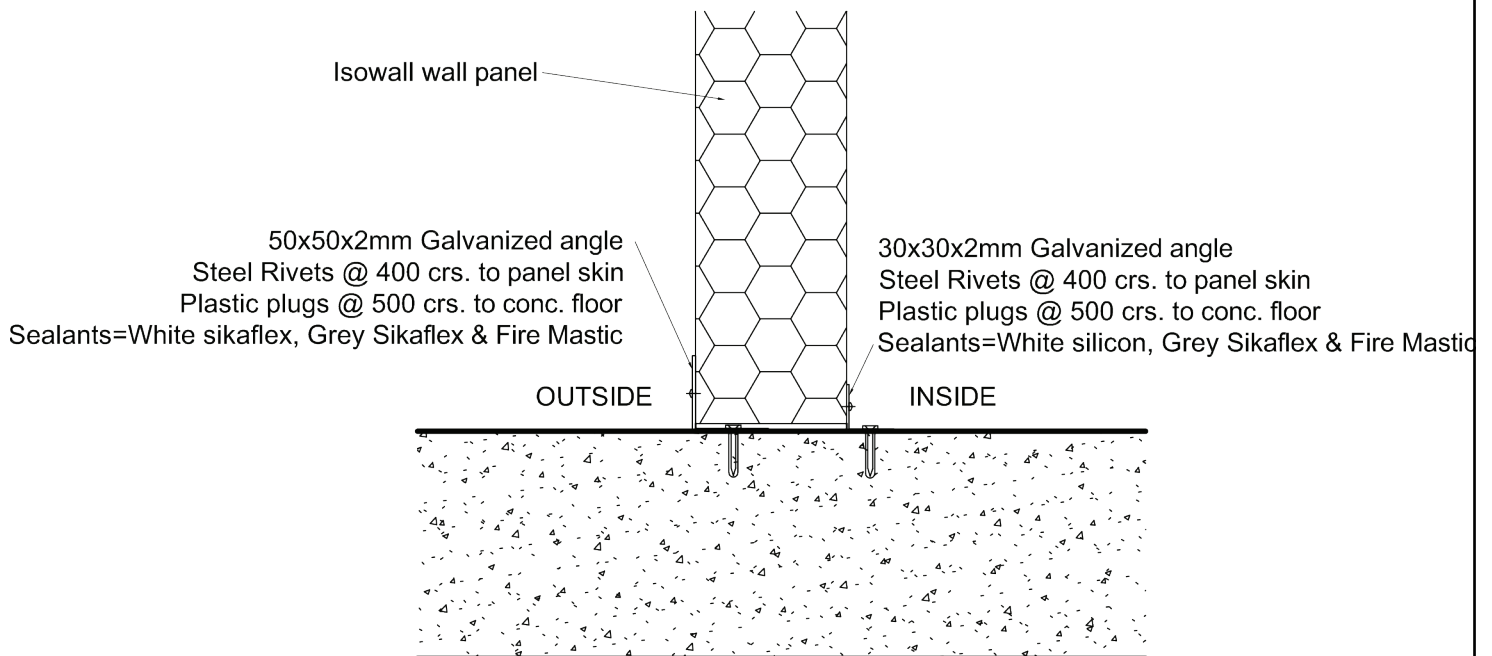
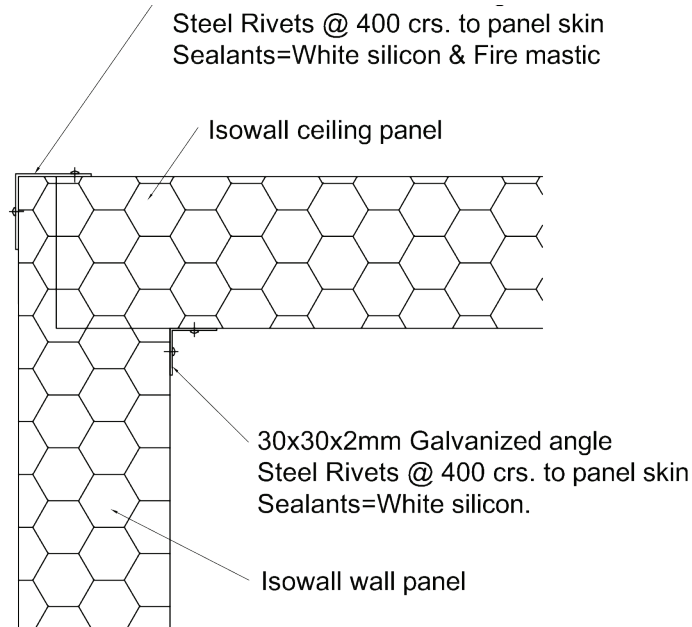
Recommended Fixing Detail

It is important that in the case of fire rated panels the fixing details are designed so that the panels are retained in position in the event of a fire.

Therefore:

- All fixings should be steel and not aluminium.
- Steel angles/ channels to be a minimum of 1.6mm thick.
- All rivets to be stainless steel.





Isowall
Isowall Southern Africa (Pty) Ltd
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TITLE :
**FIXING MAT'L USED FOR
ROCKWOOL PANELS**

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