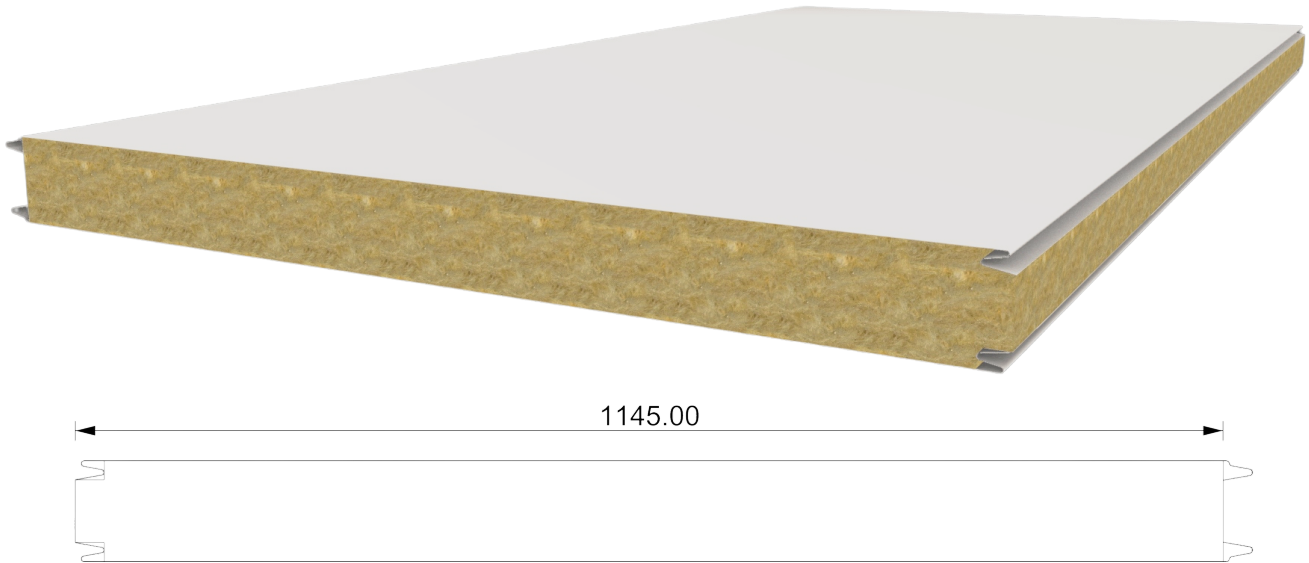




# LiteSpan Stone Wool Sandwich Panel

## Product description

LiteSpan Stone Wool Sandwich Panel is a 1145mm wide composite panel comprising top and bottom coated galvanized coated steel sheets, with a sandwiched Stone Wool core. The Stone Wool is a high quality resin bonded slab with a predominantly vertical fibre structure for increased pressure strength of the panel. Stone Wool offers a significant contribution towards improved fire safety, insulation and sound absorption. Moreover, the panel offers a durable, highly insulated, extremely air-tight, and aesthetically pleasing roof or wall solution.



## Applications

- Temperature controlled rooms
- Laboratories
- Food processing areas
- Hospitals
- Indoor swimming pools
- Prefabricated buildings
- Good Manufacturing Practice (GMP) areas

## Benefits

- Fire resistant
- Thermal efficient
- Water repellent
- Resistant to rot, mildew, mold and bacterial growth
- Chemically inert
- CFC & HCFC free
- Completely recyclable

## Structural and Thermal data for Stone Wool Sandwich Panels

| Core Thickness (mm) | Max. Unsupported Wall Height (mm) | *Max. Unsupported Ceiling Length (mm) | Panel Weight (0.5mm skin) (kg/m <sup>2</sup> ) | 'U' Value (W/m <sup>2</sup> .K) | 'R' Value (m <sup>2</sup> .K/W) |
|---------------------|-----------------------------------|---------------------------------------|--|---------------------------------|---------------------------------|
| 50                  | 3400                              | 2640                                  | 14.8   | 0.70                            | 1.43                            |
| 75                  | 4600                              | 4100                                  | 17.8   | 0.47                            | 2.14                            |
| 100                 | 5700                              | 5400                                  | 20.8   | 0.35                            | 2.86                            |

## Stone Wool Core Properties:

| Properties                                   | Unit              | Value      | Standard      |
|--|-------------------|------------|---------------|
| Density                                      | kg/m <sup>3</sup> | 120        | TS EN 1602    |
| Compressive Strength (%10 deformation)       | kPa               | ≥45        | TS EN 826     |
| Tensile Strength                             | kPa               | ≥15        | TS EN 1607    |
| Declared Thermal Conductivity (10°C)         | W/mK              | max. 0.035 | TS EN 12667   |
| Reaction to fire                             | W/mK              | A1         | TS EN 13501-1 |
| Max. Operation Temperature                   | °C                | 760        |               |
| Melting point                                | °C                | >1000      | DIN 4102      |
| Water Vapor Diffusion Resistance Coefficient | μ                 | 1          | TS EN 12086   |
| Short Term Water Absorption                  | kg/m <sup>2</sup> | <1         | TS EN 1609    |
| Long Term Water Absorption                   | kg/m <sup>2</sup> | <3         | TS EN 12087   |

## Stone Wool Sandwich Panel Wall System Characteristics:

- 100mm Panel:
  - Meets all criteria for non-load bearing system - **SANS 10177 - Part 2** and the **Fire Resistance Rating (FRR)** classification is as follows:
    - Fixed joint system: **FR60 (Non-load bearing)**
      - Single Storey - Valid for external walls carrying the load of a light roof construction and internal walls. Suitable for detachable building only
      - Multi-Storey - Suitable for internal walls as occupancy, division or tenancy separating walls containing no service terminations. It may also be used as an infill panel in conjunction with a structural framework
    - Unfixed joint system: **FR30 (Non-load bearing)**
      - Suitable for all non-loadbearing internal walls requiring a 30-minute fire resistance and division separating walls without services
    - Test report available on request
  - R-Value: See structural and thermal data tables
  - Loading: See structural and thermal data tables
  - Steel properties: Chromadek or similar skins are available in different colours, Z and AZ coating specifications and material thickness
  - Steel skin thickness: ≥0.5mm

## Fixing

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 aluminum.
- Steel angles/ channels to be a minimum of 1.6mm thick.
- All rivets to be stainless steel.

## Colours

Steel skins are available in 6 different colours.

