

## Hygiwall sandwich panel

### 1-sided or 2-sided with FRP

### Euroclass E / Euroclass B,s2-d0

#### Description

Hygiwall Sandwich panel is a combined sandwich panel.

Hygiwall is compliant with HACCP regulation and connection is made with a seamless joint (HygiSeal, for more information see technical data sheet of HygiSeal 3.1).

It is composed of 2 parts :

- **Part Ia** = Sandwich panel with PIR core Euroclass B-s1,d0  
or **Part Ib** = Sandwich panel with mineral wool core Euroclass A2s1d0
- **Part II** = FRP sheet Euroclass E / Euroclass B,s2-d0 , glued on 1 side or on 2 sides

#### Application

For renovation and new-build.

Ideal for box-in box projects.

For inner, non-supporting walls and self-supported ceilings.

#### Performance

The panels are installed according to the instructions of the manufacturer.

Temperature range: -60°C / +70°C (suitable profiles are required above 60°C)

#### Technical data

##### Part Ia = Sandwich panel with PIR core

- Modular width: 1.100mm, 1.150mm or 1.185mm
- Usable width: 1.100 mm, 1.150 mm or 1.185 mm
- Available thicknesses: from 40 mm to 200 mm
- Maximum length: 15,10 m (depending on transport)
- Minimum standard length: 2,00 m
- Panel Insulation: Polyisocyanurate PIR
- Density: density of PIR is of 40 kg/m<sup>3</sup> or 38 kg/m<sup>3</sup>
- Thermal conductivity of the PIR foam :  $\lambda = 0,020 \pm 0,003$  W/mk.
- Thermal dimensional stability at 80 °C < to 2% in volume. (According to the rule UNE-EN 1604).  
Thermal dimensional stability at -20 °C < to 2% in volume. (According to the rule UNE-EN 1604).
- Classification of Fire Reaction: B-s1,d0 or B-s2,d0 (According to the rule UNE – EN 13.501-1: 2007 + A1:2009)
- Fire rating B-s1,d0 according UNE-EN 13501-1:2007 + A1: 2010 certified by AFITI-LICOF
- In the 200 mm panel Classification of Fire Reaction EI60. Its function is to resist fire due to its integral thermal insulation characteristics as specified in section 5 of the rule UNE EN 13501-2: 2009 + A1:2010.
- FM approval according the standards 4880, 4 881(FM GLOBAL)



- Sheet thicknesses 0,5 mm or 0,6 mm
- Finish: Smooth – Striated - Corrugated. - Micro-ribs
- Elastic limit of the steel sheet:  $\geq 220 \text{ N/mm}^2$
- Thickness of the coating:  $25 \mu (\pm 2)$ .
- Galvanized steel coated in ZN = 100-225 g/m<sup>2</sup>, with coloured polyester lacquered coating (rule UNE-EN 10169-1).
- The Steel Sheet used is defined in the UNE EN 10346 rule, and so its dimensional tolerances and shape in the UNE-EN 10143 rule

#### Part Ib = Sandwich panel with mineral wool core

- Modular width: 1.170mm
- Usable width: 1.170 mm
- Available thicknesses: from 80 mm to 200 mm
- Maximum length: 15 m (depending on transport)
- Minimum standard length: 2,00 m
- Tolerances (EN 14509):
  - width:  $\pm 2 \text{ mm}$
  - length:  $\pm 5 \text{ mm}$  (  $L \leq 3.000 \text{ mm}$  )  
 $\pm 10 \text{ mm}$  (  $L > 3.000 \text{ mm}$  )
  - thickness:  $\pm 2 \text{ mm}$  (  $D \leq 100 \text{ mm}$  )  
 $\pm 2 \%$  (  $D > 100 \text{ mm}$  )
- Panel Insulation: Mineral wool 50C or 50F
- Density:
  - 50C : 95 kg/m<sup>3</sup>
  - 50F : 120 kg/m<sup>3</sup>
- Thermal conductivity of the mineral wool :
  - 50C :  $\lambda = 0,042 \text{ W/mk.}$  (EN 13162, EN 14509)
  - 50F :  $\lambda = 0,045 \text{ W/mk.}$  (EN 13162, EN 14509)
- Classification of Fire Reaction: panels A2s1d0 according EN13501-1 and EN14509  
core A1 according EN 13501-1
- Fire resistance (EN 13501-2): 50F mineral wool insulation, partition and exterior wall application:
  - EI 60: 80mm or greater horizontal & vertical installation up to 4m span
  - EI 90: 100mm horizontal & vertical installation up to 4m span (stitching screw obligatory every 300mm in the joint on both sides of the panel)
  - EI 120: 120mm or greater vertical installation up to 4m span. Horizontal installation up to 6m
 50F mineral wool insulation, ceiling application:
  - EI 120: 120mm up to 5.40m span (stitching every 300mm in the joint on the opposing side of the fire)
  - EI 180: 120mm up to 4.4m span (stitching every 300mm in the joint on the opposing side of the fire)
- Acoustic performance: 50F panels have a predicted single figure weighted sound reduction of  $R_w (C;Ctr) = 29 \text{ dB} (-1;-3)$  for a thickness of 60mm, and  $R_w (C;Ctr) = 30 \text{ dB} (-2;-3)$  for a thickness of 100 mm according EN ISO 354:2003 and >EN ISO 140-3:1995
- FM Global certified



- Sheet thicknesses 0,53 mm
- Finish: Ribbed, Linea, Twinlook and Smooth
- Standard color: Ral 9002
- Thickness of the coating: 25 µ (±2).
- Galvanized steel coated in ZN, with coloured polyester lacquered coating.
- The Steel Sheet used is defined in the UNE EN 10346 rule.

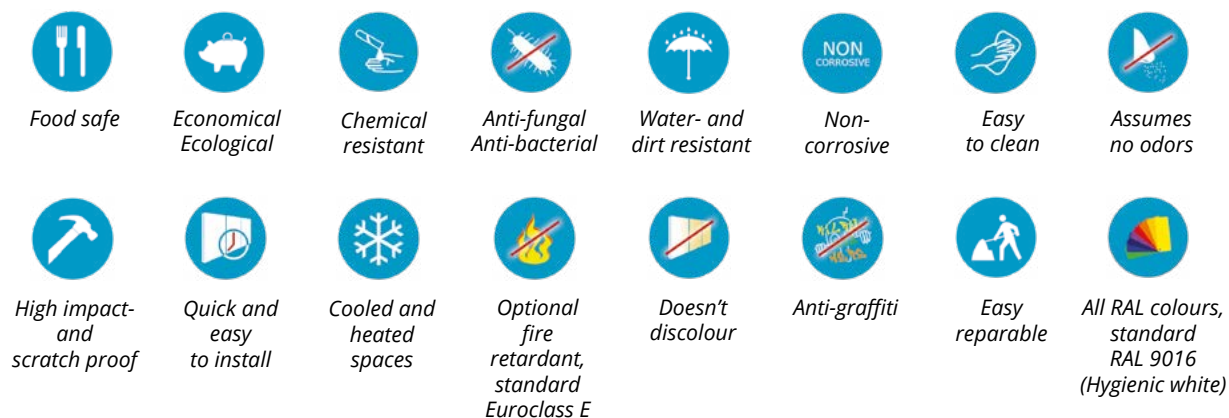
## Part II = FRP sheet , glued on 1 side or on 2 sides

The FRP sheet is a glass fiber reinforced composite polyester sheet, opaque, available with a smooth or embossed surface.

- Hardness: 30 - 40 (according to Barcol unit)
- Impact Resistance : 180 J/m
- Material : FRP , fibreglass reinforced polyester
- Color : White - RAL 9016
- Surface structure : embossed or smooth
- Sides: straight
- Thickness : embossed 1.5 mm Euroclass E and embossed 1.5 mm Euroclass B,s2-d0  
smooth 1.5 mm Euroclass E and smooth 1.5 mm Euroclass B,s2-d0  
mat 2 mm Euroclass E and mat 2.3mm Euroclass B,s2-d0

For additional technical information see the technical data sheet of FRP-sheets.

## Characteristics



- Quick and easy to install (modular system)
- FOOD-SAFE & accepted by HACCP, IFS ,EU, BRC, FDA, USDA, ...



- Afsset (A+) – Greenguard certificate (lowest possible emissions in the interior)



**'Bacterial adhesion to covering materials in food industry' study**

Performed by the university of Vigo (full report on demand)

- control material = RVS (AISI 304)
- smooth = FRP smooth surface
- embossed 1 = FRP embossed surface, discontinued
- embossed 2 = FRP embossed surface, the currently available FRP sheet

