



By **CANDIGRÉS**



CANDIWALL BOARD

TECHNICAL DATA SHEET

DESCRIPTION

Candiwall Board is a thermal foam rigid extruded polystyrene(XPS).Has a closed-cell structure and is manufactured in accordance with procedures certified according to European Standard EN 13164 - "Thermal insulation products for buildings - Factory made products of extruded polystyrene (XPS) specification". The boards have a "L" profile shape on both sides and the patented solution with grooves for the easy application of thin brick.

PROPERTIES

- Excellent insulation properties, low thermal conductivity coefficient (λ_d)and low water absorption;
- High mechanical strength, particularly compression;
- Self-extinguishing fire;
- Contains no CFC's or HCFC'S;
- High dimensional stability
- Insensitivity to the attack of acids and bases;
- Inertia to changes in weather
- Easy to carry, cut and apply;
- These properties are stable over time;
- 100% recyclable.

CERTIFICATION

Certified according to European Standard: EN 13164:2008;EN 13501-1;EN ISO 11925-2:2002
 Certification Entities: LNEC - Laboratório Nacional de Engenharia Civil,Portugal
 AENOR, Asociación Española de Normalización y Certificación, Spain
The Candiwall Board is a part of the Candiwall System® , cannot be sold separately.
The Candiwall System® is in final tests for the ETAG004 approval.

INSTRUCTIONS FOR USE

Please read the installation manual of the Candiwall System®.

TECHNICAL DATA

| PROPERTIES | MEASURE UNITS | EN STANDARD | CANDIWALL BOARD |
|--|---------------|-------------------|-------------------------|
| Shape of profile | | | L (HALF-WOOD) |
| Thickness available (d) | mm | | from 30 to 160mm |
| Board Dimension | mm | EN 822 | 1250X600 |
| Declared value of dimensional stability | % | EN 1604 | ≤2 |
| Declared value of compressive strength at 10% deformation | kPa | EN 826 | 300 |
| Thermal conductivity $-(\lambda) - (after 25 Years)$ | W/m*K | EN 12667 | 0,035 |
| Temperature of use | °C | | from -50 to +75 |
| Reaction to fire | Class | EN 13501-1 | E |

Calculation of Thermal Resistance and U-value

Thermal Resistance ($R=d/\lambda$) ; U-value ($1/R$)

Example of calculation:

Candiwall Board with 120mm,
 $R= 0,12/0,035 R=3,42 \text{ m}^2\text{k/w}$;
U-value= $1/3,42$ U-value= $0,29 \text{ w/m}^2\text{k}$

NOTE: In Rehabilitation projects, to reach the desire U-value it is necessary to calculate the thermal resistance of the existing wall, then adjust with the thickness of the Candiwall Board to achieve the required U-value.

STORAGE

Candiwall Board can be stored outdoors, on a clean and smooth surface, or in enclosed and ventilated space. They are insensitive to water from rain and snow, but not to ultraviolet radiation. The shrink film is UV resistance for up to 6 months. They should be stored away from flammable materials, fire or other ignition sources. Avoid come into contact with solvents such as gasoline, coal tar and formic acid, or with gases such as methane, ethane, propane and butane. The appearance or structure may be damaged when in contact with mineral and vegetable oils, paraffin, phenol, and fats.

DECLARED THERMAL RESISTANCE VALUES AND U-VALUE AFTER 25 YEARS ($\lambda_{90/90}=0,035$)

| TICKNESS OF CANDIWALL BOARD (mm) | THERMAL RESISTANCE ($\text{m}^2\text{k/w}$) | U-VALUE ($\text{w/m}^2\text{k}$) |
|----------------------------------|---|------------------------------------|
| 30 (with $\lambda=0,035$) | 0,857 | 1,166 |
| 40 (with $\lambda=0,035$) | 1,142 | 0,875 |
| 50 (with $\lambda=0,035$) | 1,428 | 0,700 |
| 60 (with $\lambda=0,035$) | 1,714 | 0,583 |
| 80 (with $\lambda=0,035$) | 2,285 | 0,437 |
| 100 (with $\lambda=0,035$) | 2,857 | 0,350 |
| 120 (with $\lambda=0,035$) | 3,428 | 0,291 |
| 140 (with $\lambda=0,038$) | 3,684 | 0,271 |
| 160 (with $\lambda=0,038$) | 4,210 | 0,237 |