

MBK WALLS

TECHNICAL DATA



- Without thermal bridges
- Wall ready for plastering or painting
- Enhanced airtightness
- Exceptional thermal inertia

- Exterior and interior insulation
- Ease of installation
- Technical support on site
- NZEB / Passive insulation



Polistibrick®

FORMWORK BLOCK



EXTERIOR PANEL

14,8 cm
20,8 cm

H = 40 cm

Exterior Formwork - Horizontal installation
11 kg/piece - Fiber cement 0.8 cm

L = 240 cm



INTERIOR PANEL

8,2 cm
11,2 cm

H = 300 cm

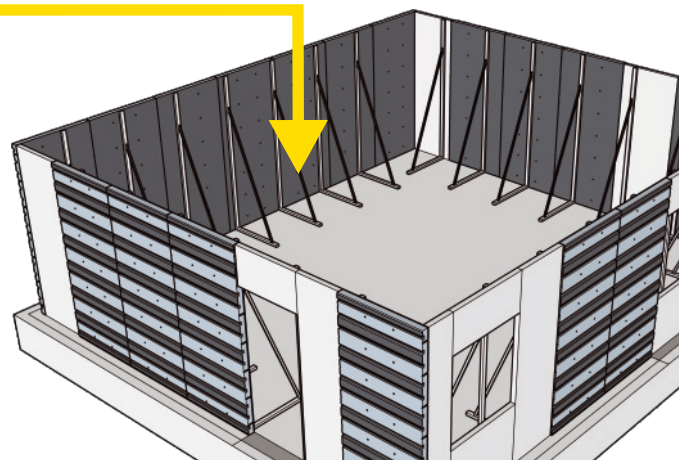
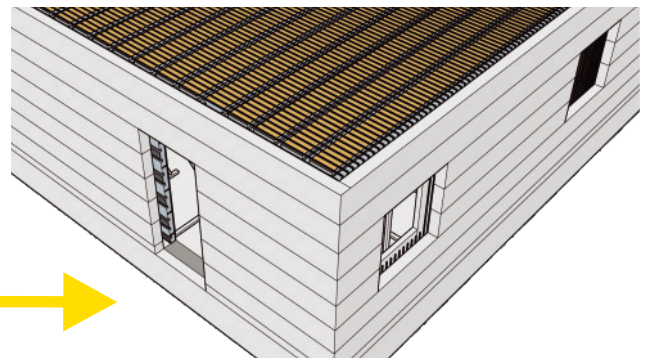
Interior Formwork Vertical installation
45 kg/piece
Fiber cement 1.2 cm

L = 120 cm

Note

The exterior formwork is available in two thicknesses:

- 14 cm of insulation + 0.8 cm fiber cement
- 20 cm of insulation + 0.8 cm fiber cement



Note

The interior formwork is available in two thicknesses:

- 7 cm of insulation + 1.2 cm fiber cement
- 10 cm of insulation + 1.2 cm fiber cement

- The interior and exterior formwork can be adjusted by cutting or adding material to achieve the exact desired dimensions.
- Reinforcement and concrete are sized by the design office.
- Custom thicknesses can also be created to optimize thermal performance.
- Polistibrick can be combined with various insulating materials such as: standard polystyrene, graphite polystyrene, polyurethane, or extruded polystyrene.

MBK – TECHNICAL DATA

THERMAL TRANSFER VALUES CHARACTERISTICS OF CONCRETE

TYPES OF WALLS	MBK 210	MBK 260	MBK 310
TOTAL INSULATION THICKNESS (Interior + Exterior)	23 cm	28 cm	32 cm
THERMAL RESISTANCE OF THE WALL $R - (m^2 P . K) / W$	7,039	8,652	10,26
WALL HEAT LOSS: $U - W / (M^2 P . K)$	0,014	0,012	0,010
TOTAL WALL THICKNESS + CONCRETE 15 CM	38 cm	43 cm	47 cm
COMMON APPLICATIONS	Thermally insulated walls, designed in accordance with RE2020 and NZEB, with optimized energy efficiency.	Thermally insulated walls, designed in accordance with NZEB, with optimized energy efficiency.	Thermally insulated walls, designed NZEB and Passive, with optimized energy efficiency.

Informative Note

We can manufacture any thickness for the Polistibrick system; the three models are just an example of performance, and any desired thickness can be custom-made to achieve maximum thermal performance. Additionally, Polistibrick can be insulated with various materials such as classic fireproof polystyrene, graphite fireproof polystyrene, basalt wool, polyurethane, or extruded polystyrene.

Polistibrick is the only system in the world being the most versatile system in terms of thicknesses or insulating material.

CONCRETE CHARACTERISTICS

The volume of concrete: 155 liters per square meter of concrete block with a 16 cm wall, which means 390 kg per square meter.

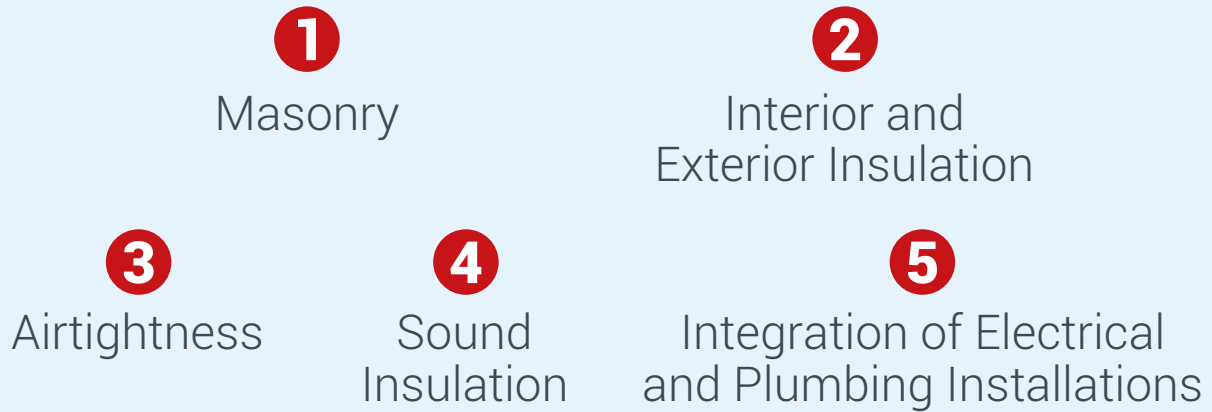
Concrete dosage: approximately 350 kg per cubic meter - Consistency S3 or S4 - Granulometry 0-8 / 0-16.

The insulating formwork blocks POLISTIBRICK are used in individual and collective residential constructions up to the third class, with the last floor situated at 28 meters.

The POLISTIBRICK construction system allows meeting the specific requirements of technical clauses for construction works, especially DTU 21 > Execution of concrete works and DTU 23-1 > Formwork concrete walls.

MBK – BENEFITS

5-in-1 – Integrates 5 Construction Stages



- **Easy to Install** – Modular design allows for quick and precise assembly, reducing on-site execution time.
- **Fire Resistant** – The fiber cement board provides protection against fire and does not release toxic smoke.
- **Water Resistant** – Does not absorb moisture, protecting the structure against infiltration and long-term degradation.
- **Sound Insulating** – Reduces sound transmission, ensuring superior acoustic comfort.
- **Airtight** – Eliminates air infiltration, reducing energy loss and enhancing thermal efficiency.
- **Compatible with Any Finish** – Allows application of plaster, tiles, or other materials directly on the fiber cement board.
- **Durable and Sustainable** – The materials used are resistant to earthquakes and extreme weather conditions.
- **Compatible with Any Type of Finish**
- **Ideal for Any Type of Project**
- **No Thermal Bridges**
- **Optimized Total Cost**
- **Easy Window Installation**
- **Error-Free Assembly**
- **Labor Cost Savings**
- **Sustainable Solution**

PATENTED SYSTEM

Thanks to its innovative formwork, it allows the execution of the following in a single operation:



Reinforced Concrete Masonry

A monolithic reinforced concrete structure, directly integrated into the Polistibrick system.



Interior and Exterior Insulation

Thermal insulation is built directly into the blocks, eliminating the need for additional work – saving both time and money.



Interior and Exterior Finishes

Fiber cement boards replace plaster or drywall, eliminating extra labor and offering a surface ready for smoothing and painting.



Airtightness

The monolithic design ensures perfect airtightness without the need for additional membranes, optimizing the building's energy efficiency.



Acoustic Insulation

Both the insulation and fiber cement boards are non-mechanically fixed, blocking sound transmission and ensuring optimal acoustic comfort without added costs.



Integration of Electrical and Plumbing Networks

Pipes are embedded directly in the formwork, eliminating the need for grooves or extra labor.

Advantages of Polistibrick

Polistibrick offers solutions that save time and money while guaranteeing exceptional performance.



BUILDING A HOUSE WITH POLISTIBRICK MEANS



Polistibrick offers solutions that save time and money while guaranteeing exceptional performance.



Maximum protection against fires and floods



Continuous and efficient thermal insulation.



Exceptional strength and an earthquake-resistant structure.



A clean and eco-friendly construction site.

