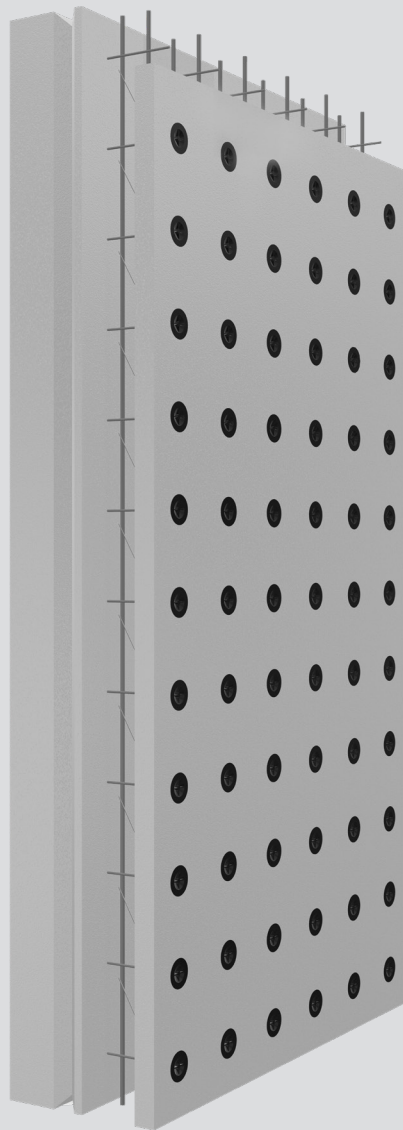


**PLASTBAU®**

**5**



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**Green Building »** build with zero energy

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**Fast »** time reduced by up to 40%

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**Affordable »** costs reduced by up to 30%

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**Easy »** intuitive, fast and adjustable  
to all market solutions

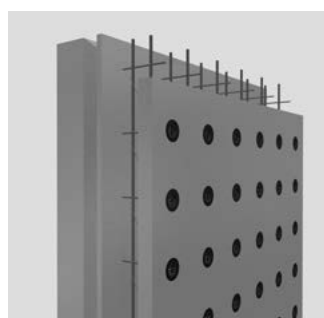
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**The new  
insulating wall**

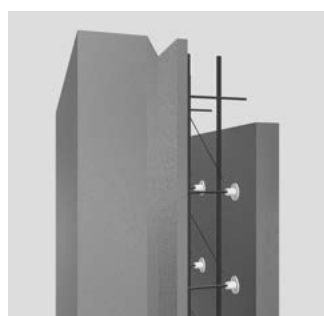
The **PLASTBAU® 5 Wall (PB5)** wall is manufactured from our HPB5 line. It consists of two EPS panels spaced apart by integrated crosspieces. It is our most advanced technological solution of insulating formwork, **without thermal bridges**, for external and internal load-bearing walls. It allows to build fast, safe and **passive, anti-seismic construction as well as energy-saving buildings**. The internal reinforcement is composed by vertical reinforcing bars with a variable diameter from 8 to 12 mm. The width of the formwork is standard, 120 cm, while the height of the internal and external slab can vary according to the project requirements.

The weight of the formworks is such that they can be easily moved, just by hand; a formwork H 300 x 120 cm weighs 39 kg so two people are more than enough to transfer it without the space dedicated to any lifting machinery. The formworks are laid in such a way that it's possible to create a solid structure ready to receive the concrete.



### EPS formwork properties

Standard width formwork	cm	120
External panel height	cm	40 ÷ 460
Internal panel height	cm	40 ÷ 460
External panel thickness	cm	8 ÷ 30
Internal panel thickness	cm	5
Thickness of concrete	cm	12 ÷ 30



### Ladders reinforcement properties

Vertical iron armature diameter	mm	8 ÷ 12
Horizontal crossbar diameter	mm	5.2
Diagonal iron bar diameter	mm	3.0

### Table of iron weight formwork PLASTBAU® 5

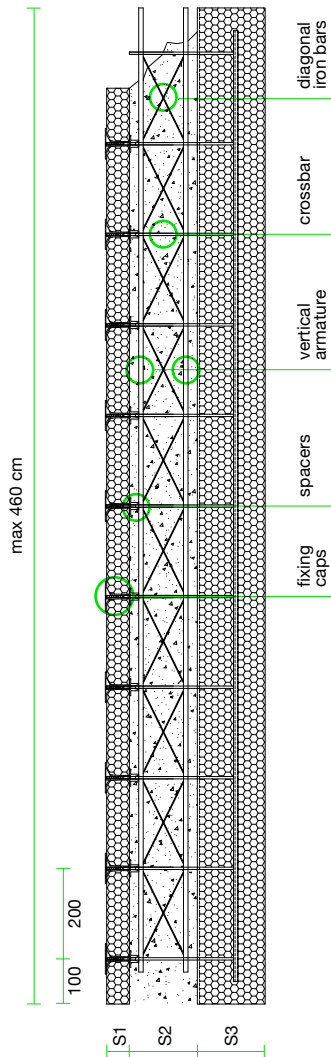
Ø Fe* (mm)	Thickness of concrete			
	15cm	20cm	25cm	30cm
Ø 8	4,53 kg	4,72 kg	4,91 kg	5,10 kg
Ø 10	6,75 kg	6,94 kg	7,13 kg	7,32 kg
Ø 12	8,97 kg	9,16 kg	9,33 kg	9,51 kg

The two EPS panels are connected to each other and fixed by metal ladders with vertical irons of varying diameters. The metal reinforcement weight ranges from 4.5 to 9.5 kg. The weight of a Plastbau® 5 panel can vary from 8 to 18.5 kg/m<sup>2</sup>.

\*Ø Fe - Vertical iron diam.

### Thermal transmittance properties U [W/m<sup>2</sup>K] and heat resistance R [m<sup>2</sup>K/W]

S1 (cm)	S3 (cm)	Ø Fe*(mm)	Thickness of concrete							
			S2 (15cm)		S2 (20cm)		S2 (25cm)		S2 (30cm)	
			U	R	U	R	U	R	U	R
5	10	Ø 8/10/12	0.207	4.839	0.206	4.854	0.205	4.878	0.203	4.926
5	12	Ø 8/10/12	0.175	5.714	0.174	5.714	0.173	5.780	0.172	5.813
5	15	Ø 8/10/12	0.149	6.711	0.149	6.711	0.148	6.756	0.148	6.756
5	20	Ø 8/10/12	0.120	8.333	0.120	8.333	0.120	8.333	0.119	8.403
5	25	Ø 8/10/12	0.101	9.99	0.101	9.9	0.1	10	0.1	10
5	30	Ø 8/10/12	0.087	11.494	0.087	11.494	0.086	11.627	0.086	11.627

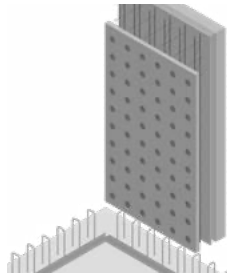


- S1** - Internal EPS panel thickness
- S2** - Concrete thickness
- S3** - External EPS panel thickness

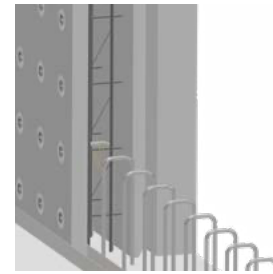
## PLASTBAU® 5 installation instructions

The **PLASTBAU® 5** wall formwork is quick and intuitive to install. It allows you to position quickly the perimeter of walls effortless. The PB5 formwork can be positioned by hand and connected to the reinforcing rods. Each panel is linked to the next using special **PLASTBAU®** plates or with other materials such as wire, wood or sheet metal.

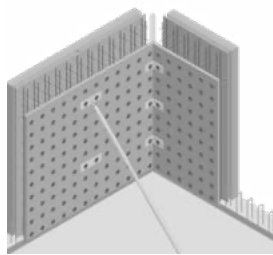
The most complex points such as doors and windows can be handled easily thanks to customized elements.



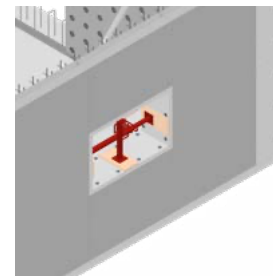
1 - The Plastbau® 5 formwork is positioned manually, starting at the corner, making sure that the internal EPS panel fit into the guides.



2 - It is then fixed to the reinforcement rods with wire or PVC ties. This gives stability to the formwork during installation in case of bad weather.



3 - Place the next formwork near the previous one binding them with polyurethane glue and fixing steel ladders of each panel with metal wire or PVC clamps. On the external sides of the panels use the special metal wall plates.



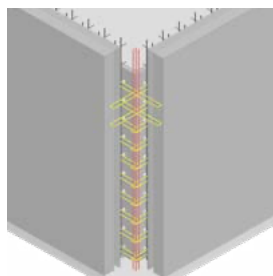
4 - Window compartments are fixed with simple wood planks and props. EPS panels are used to delete thermal bridges. Such a structure is sufficient to resist the concrete casting.

## Corner formation

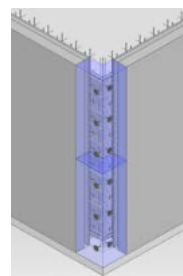
1 - For the corners use the steel vertical bars and set the horizontal steel bars as prescribed by the structural requirements.

2 - Position the special **PLASTBAU®** corner elements fixing them with the polyurethane glue.

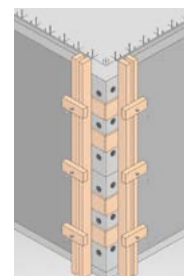
3 - Use the specific **PLASTBAU®** plastic screws in order to fix the corner element to the adjacent panels.



1 -



2 -



3 -

The **PLASTBAU® 5** formwork offers a quick and easy way to reinforce and close corners. You can start the reinforcement with an open corner, then close it with EPS panels and formwork to resist pouring concrete. Other corner solutions are possible depending on project requirements.

