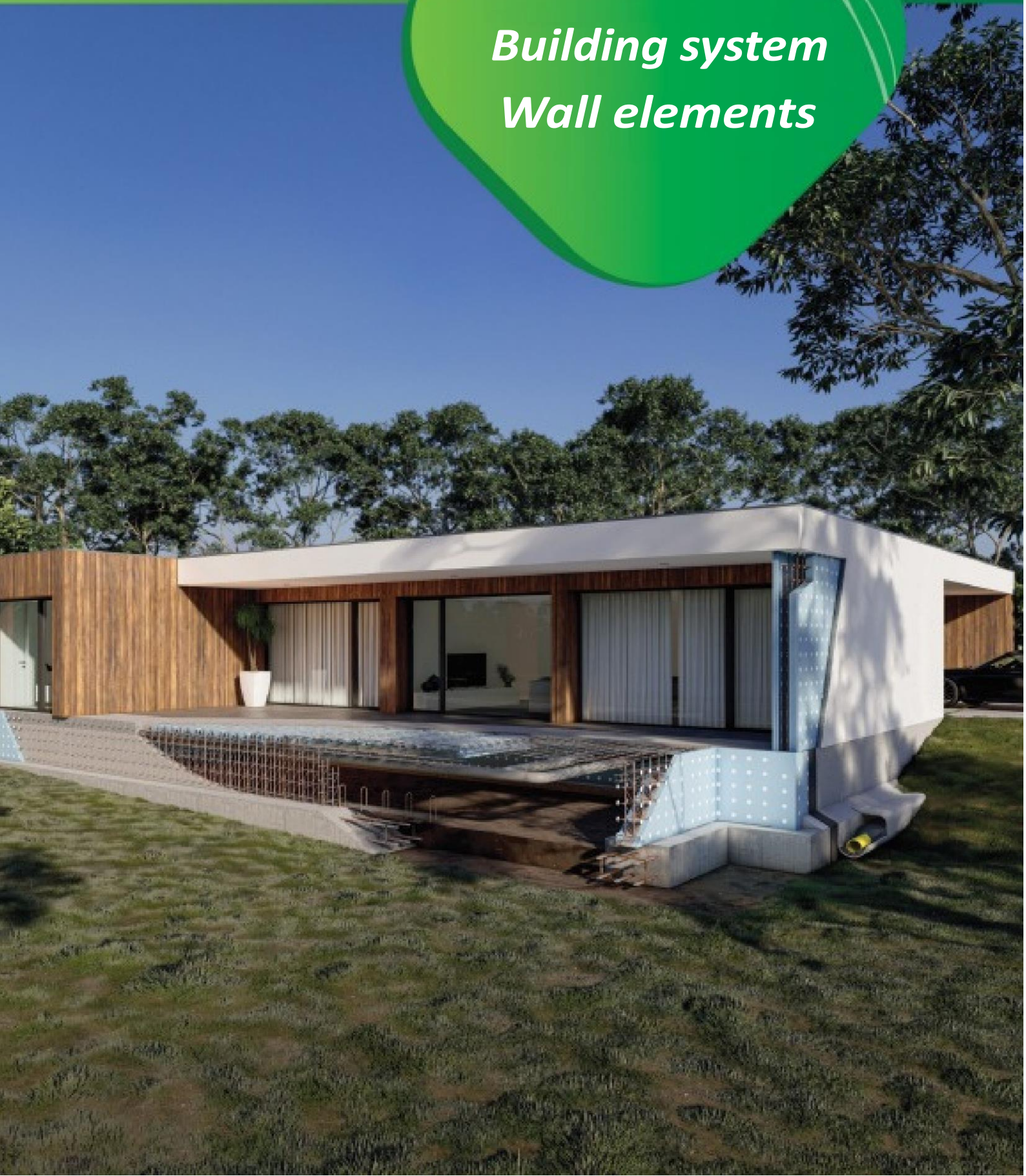


*Eco Building Group
Building system
Wall elements*

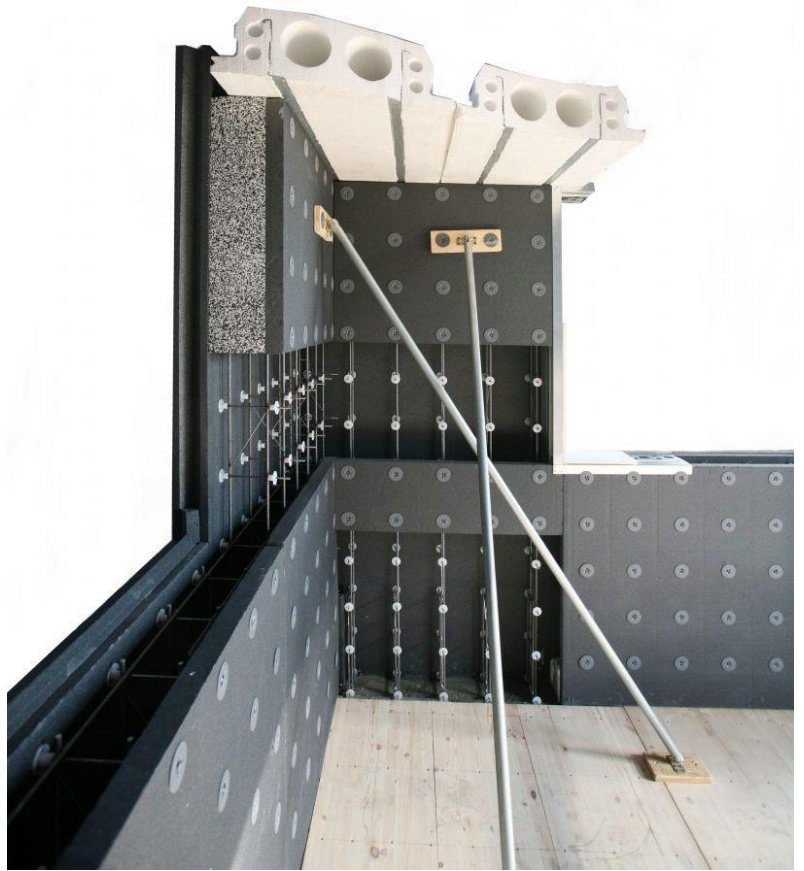


Eco Building Group building system

Our building system is an insulating formwork system with wall and floor elements for concrete construction.

Plastbau wall elements

The plastbau wall elements consist of two high-pressure neopor panels. This is an insulation material made of polystyrene (just like EPS) with the addition of graphite for a high insulation value. This also gives it its grey colour. Vertical reinforcement steel is already placed between these two panels during the production process, with a choice of 6mm, 8mm or 10mm. The great advantage of prefabricating the vertical reinforcement steel is that valuable time is saved on the building site. Horizontally, 5mm rebar is placed between the two panels as a spacer, forming one element. Concrete is poured into the space created with reinforcement steel, resulting in a reinforced concrete structure.



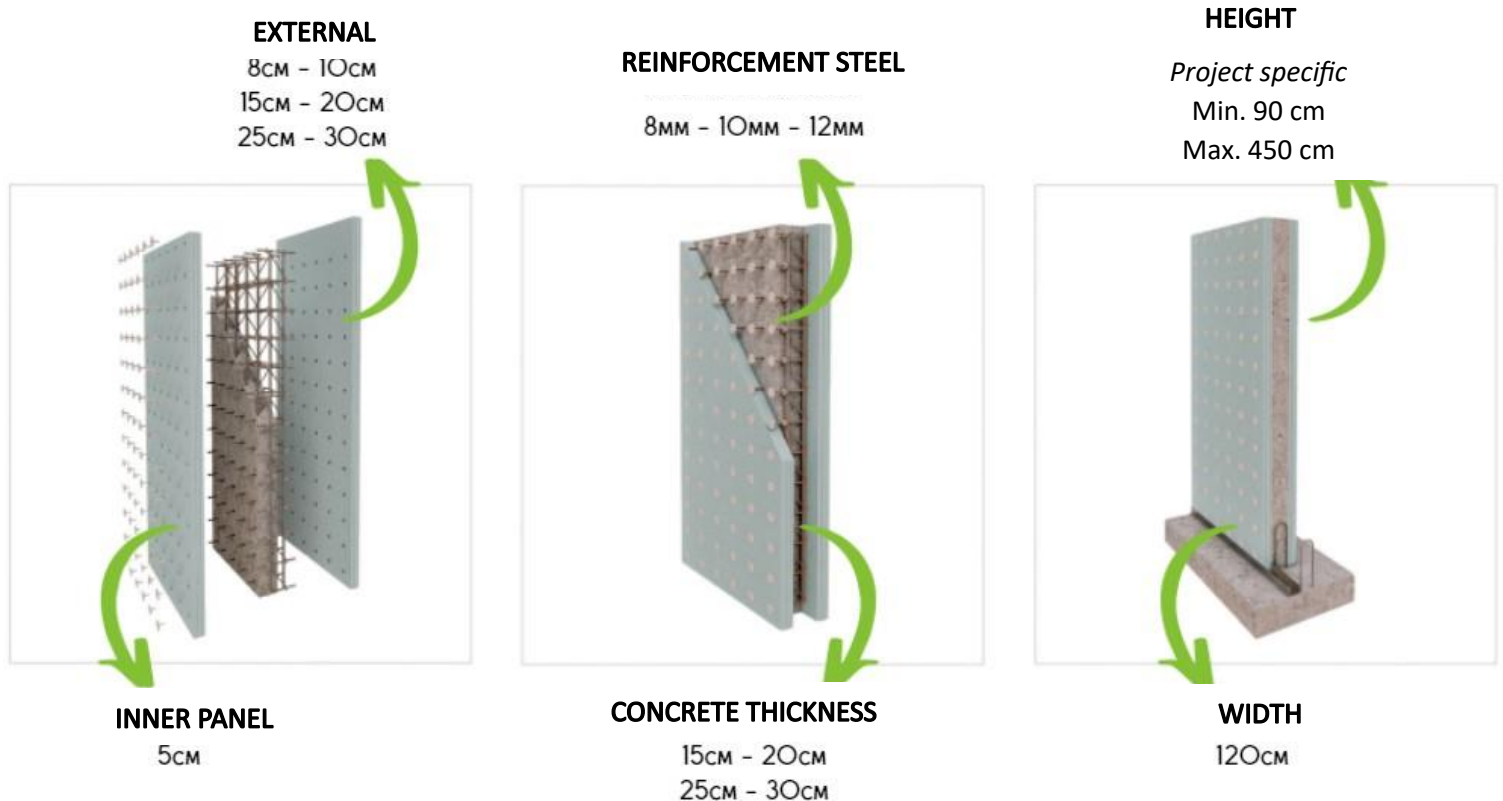
Plastbau floor elements

These floor elements are unique in Spain. It is a further development on the sandwich floor. With these EPS floor elements, a self-supporting structural floor is realised. The floor elements are used to realise a ground-floor, storey floor and/or flat roof. The elements are manufactured from EPS, optionally fitted with a metal profile and/or a reinforcement mesh on the underside. We have retained all the advantages of the combined floor, while eliminating the disadvantages. For instance, the concrete girder is cast in-situ and the floor elements are lightweight, saving crane costs, easy to place and with good insulation.

Winning combination

Together with the floor elements, the wall elements form a winning combination. Because they are made of the same material, the coefficient of expansion is 0, so no cracking will ever occur in the finish. In addition, it is an easy and durable construction system. Thanks to its air- and crack-tight construction and high insulation value, it is suitable for energy-neutral and passive housing construction and is low-threshold, fully recyclable, earthquake-resistant and has a fast construction time with a facade finish of your choice..

Plastbau wall elements



The wall elements have a number of variables in terms of height, width and thickness. This creates a versatile system, suitable for numerous applications. For example, it is suitable for flats, project-based (series) construction, villa construction, basement construction and swimming pool construction.

Dimensies Plastbau Wandelementen					
Dikte intern paneel	Dikte extern paneel	Hoogte paneel	Breedte paneel	Betondikte	Verticaal wapeningsstaal
5cm	8cm	<i>Projectspecifiek</i>	120cm	15cm	8mm
	10cm	Minimaal 90cm		20cm	10mm
	15cm	Maximaal 450cm		25cm	12mm
	20cm			30cm	
	25cm				
	30cm				

Concrete & reinforcement steel

The concrete quality of the walls should be C20/25 XC1 S3 or S4, with a grain size 4 16mm. The maximum speed for pumping the concrete is about 10m³/hour. It is recommended to perform the pour in a number of rings. Floor-to-ceiling pours can be carried out without any problems. Besides the vertical prefab reinforcement steel, horizontal reinforcement must be placed in accordance with a structural engineer's design.

The final concrete mix and reinforcement must always be determined in consultation with the structural engineer.

Placement & details

Foundation detail with start profile

Place the wall elements in the starting profile. Start at a corner.



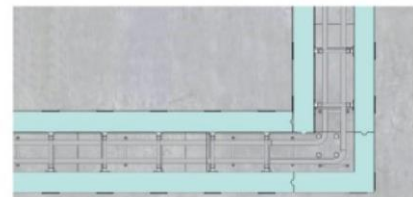
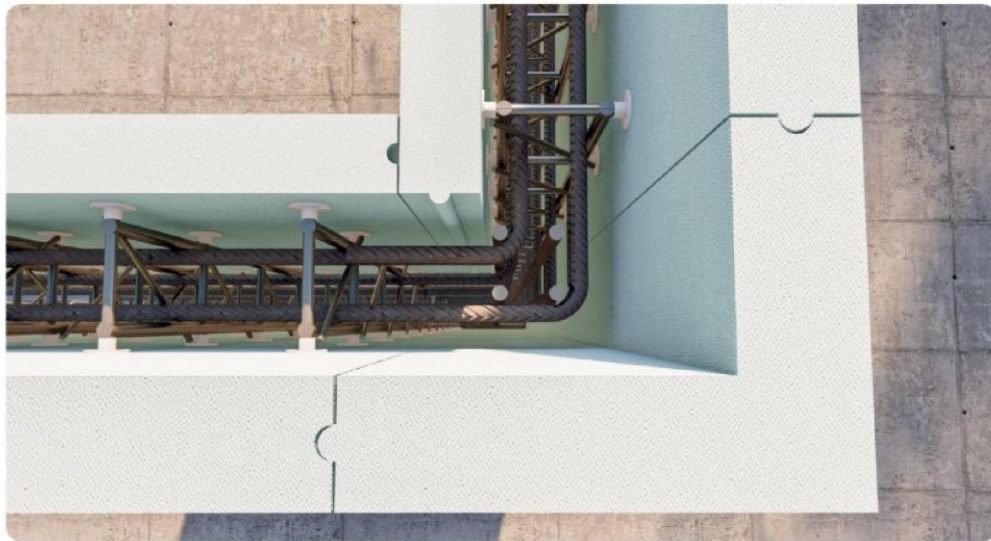
Place the starting profile where the inside of the wall element will be placed

Plastbau wall element installation



Place the wall elements in the starting profile. Start at a corner.

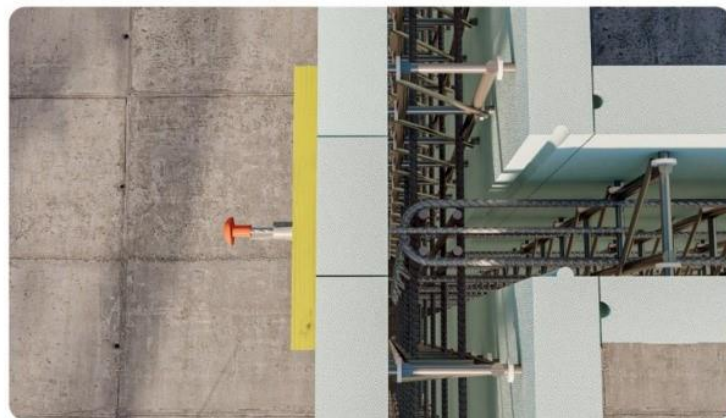
Horizontal reinforcement



Place horizontal reinforcement in accordance with the structural engineer's design. Close the outside corners of the panel.



1 Position the reinforcement steel in accordance with the structural engineer's design



2 Reinforce the wall elements where you made a disruption



3 Close the corners of the panel on the outside



4 Reinforce corners for trouble-free pouring



5

Connect the wall elements with each other using the metal connecting plates. Then level off the wall elements.



6

During the concrete pour, make sure that all elements are properly and completely filled, including under the window frames.

