

***ECO Building Group  
Building system  
Floor elements***

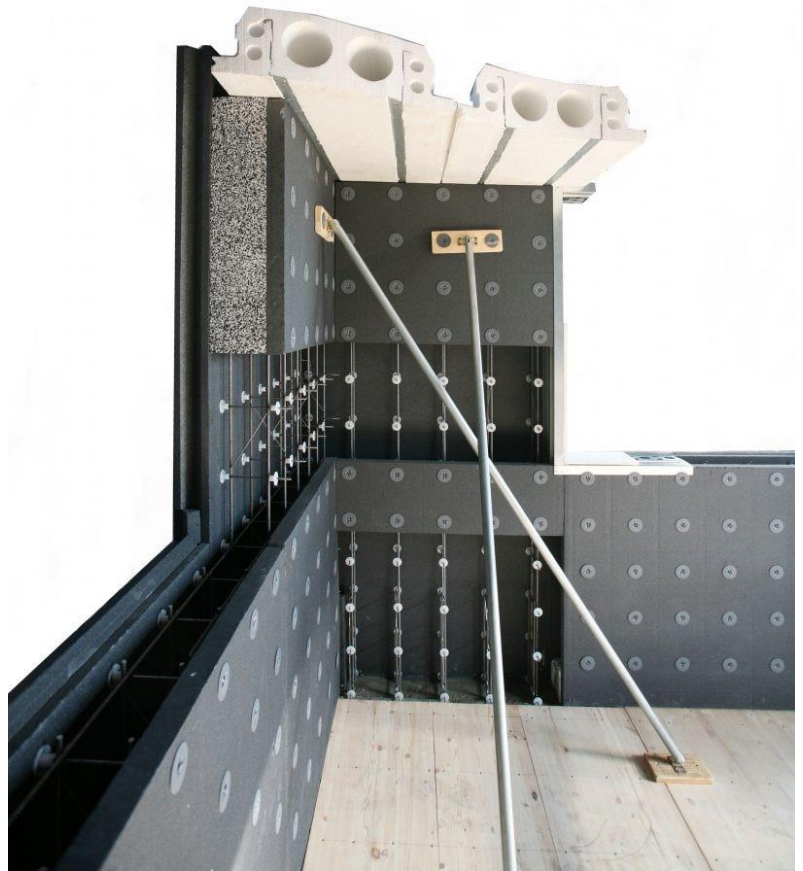


# Eco Building Group building system

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 floor elements

## STRUCTURAL HEIGHT

The structural height of the beam is determined according to the desired span and floor load.

Minimum height = 12cm

Maximum height = 35cm



## THERMAL BRIDGE FREE

Thanks to a clever tongue-and-groove connection, the floor elements fit together seamlessly and without thermal bridges

## INSULATION THICKNESS

To make the floor elements suitable for different applications, the insulation thickness can be adjusted as required.

Minimum height = 4 cm

Maximum height = 8 cm

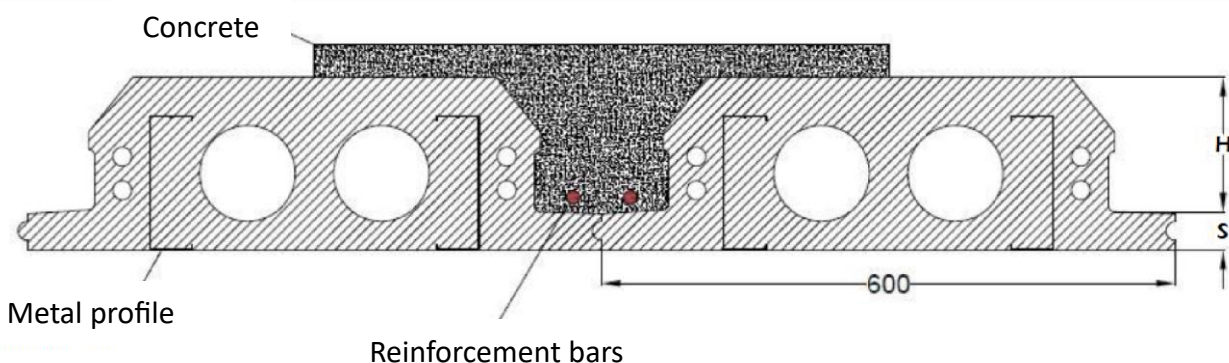
## FINISHING

An optional metal profile with a centre-to-centre distance of 30 cm per profile ensures that a plasterboard finish is easy to achieve

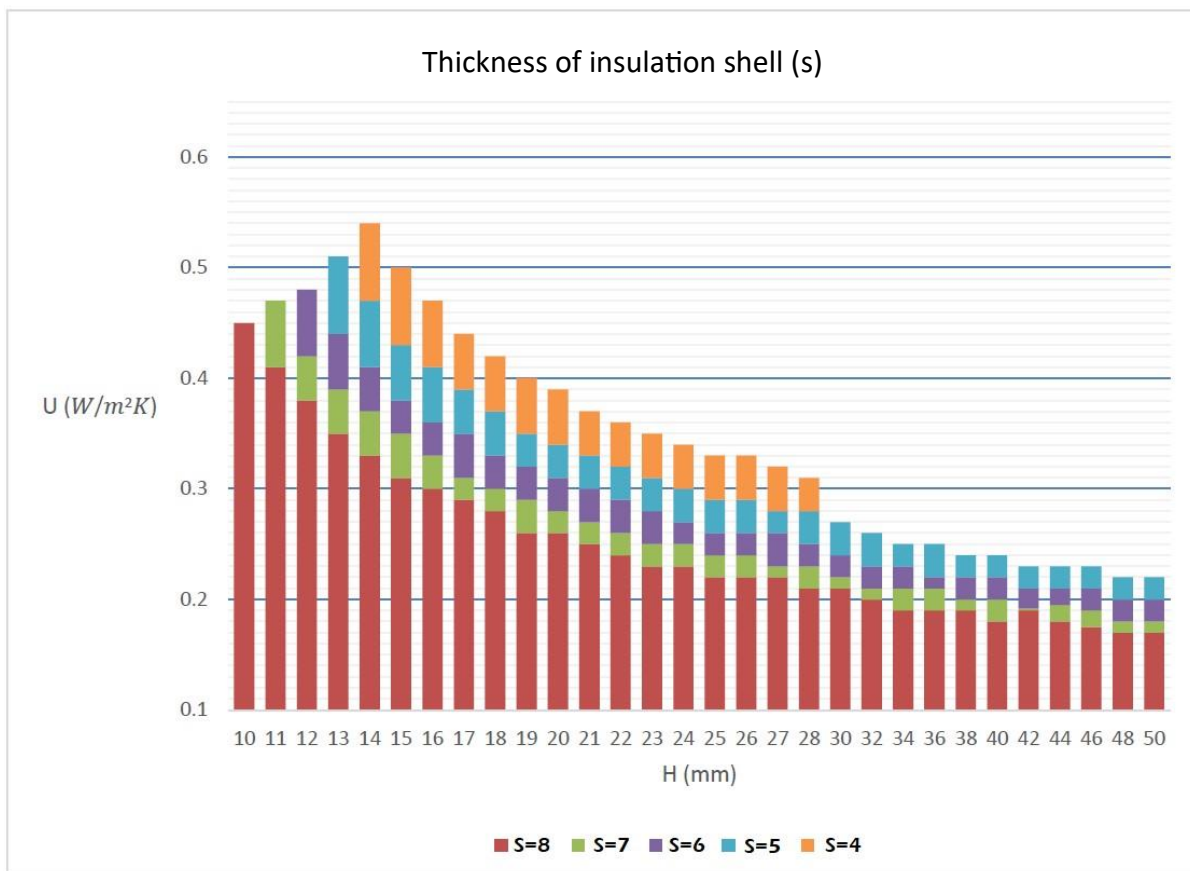
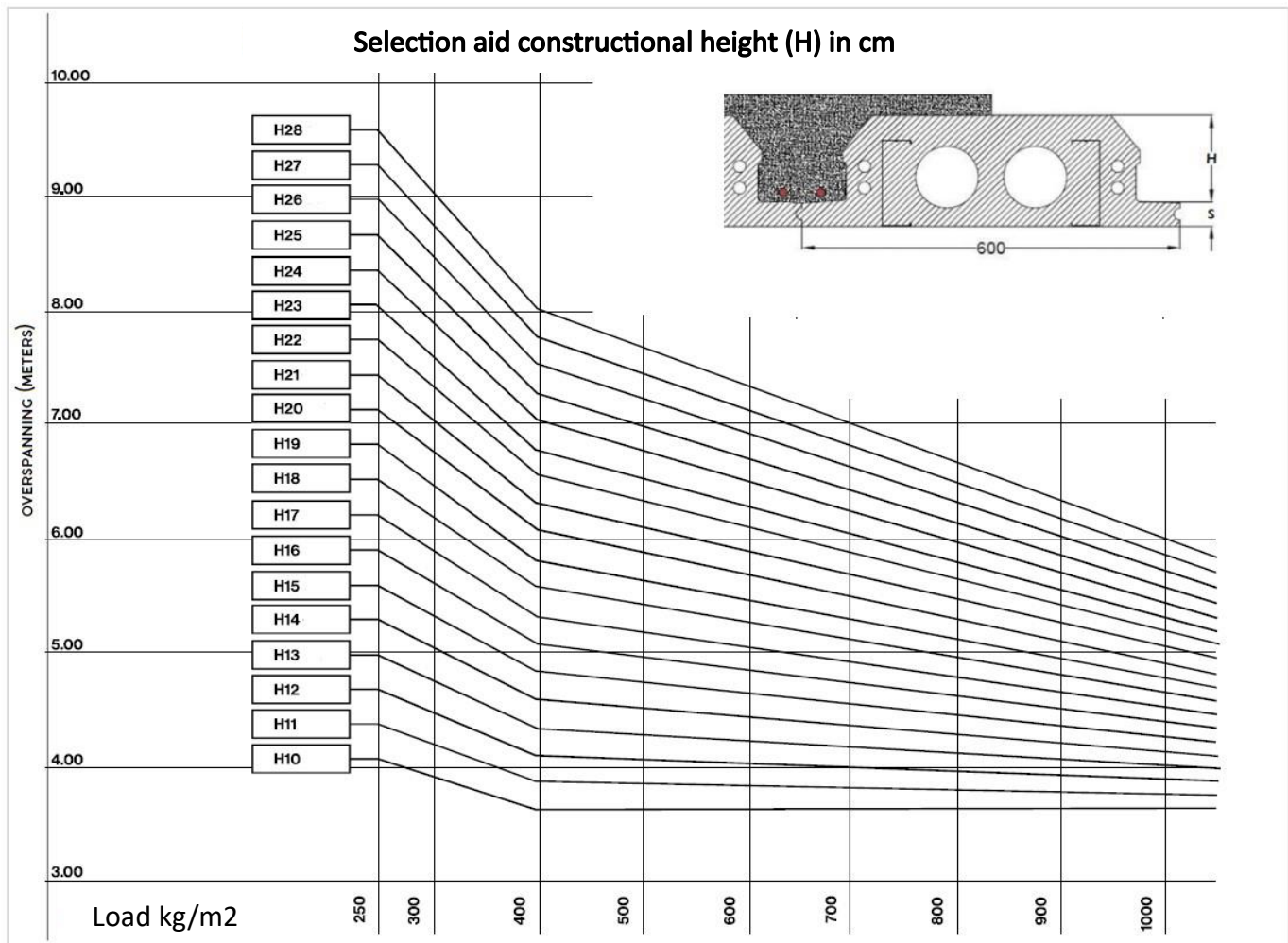
Plastbau metal floor elements have a number of variables and are therefore surprisingly versatile and therefore widely applicable. For example, the length of a floor element is tailored to the project and several length dimensions can be supplied on one project.

The standard width is 60 cm, with a handy tongue-and-groove connection enabling the elements to be placed together seamlessly and without thermal bridges without having to be glued. The height of the construction beam (h) depends on the span and must be approved by a structural engineer. The thickness of the insulation shell (s) should be a minimum of 4cm and a maximum of 8cm. The structural height together with the thickness of the insulation shell (h+s) forms the final height of the floor element. On average, the thickness of the concrete layer on top of a floor element is approx. 8cm

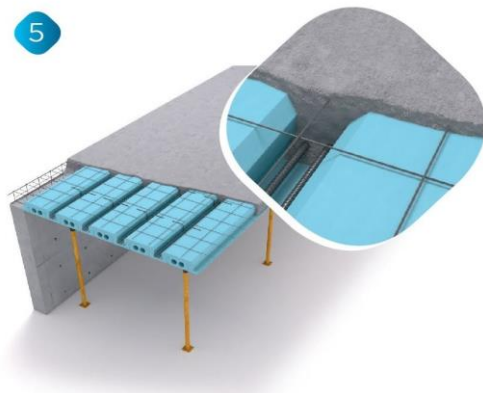
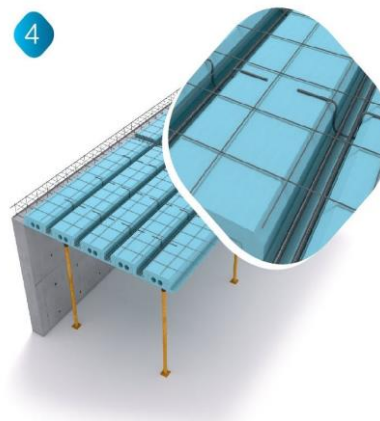
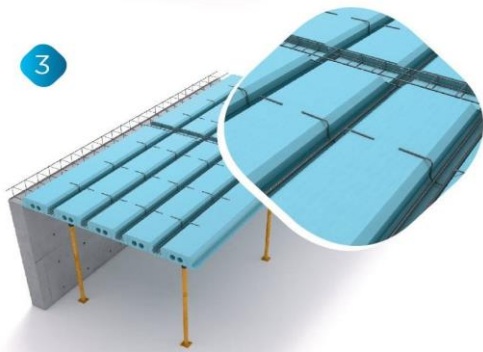
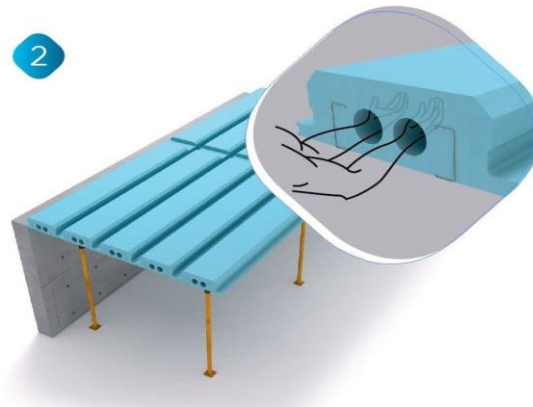
Dimensies Plastbau vloerelementen EPS			
Lengte	Breedte	Hoogte constructiebalk	Dikte Isolatieschil
Projectspecifiek	0.60m	Projectspecifiek	Projectspecifiek
Minimaal 2.00m		Minimaal 12cm	Minimaal 4cm
Maximaal 13.60m		Maximaal 35cm	Maximaal 8cm







# Placement & details



- 1 Place the props 1.20m apart and ensure solid wood to lay your floor elements on.
- 2 Place the floor elements.
- 3 Lay the bottom reinforcement on spacers and place any reinforcement baskets and/or pipework.
- 4 Lay a reinforcement mesh as top reinforcement.
- 5 Pour concrete C30/37 onto the top side of the floor elements.



