

PBK FLOOR

TECHNICAL DATA



- Without thermal bridges
- Fast installation
- Installation without cranes or other equipment
- Ceiling ready for plastering or painting

- Enhanced airtightness
- Exceptional thermal inertia
- Technical support on site
- NZEB / Passive insulation



Polistibrick®

PBK – TECHNICAL DATA

THERMAL TRANSFER VALUES CHARACTERISTICS OF CONCRETE

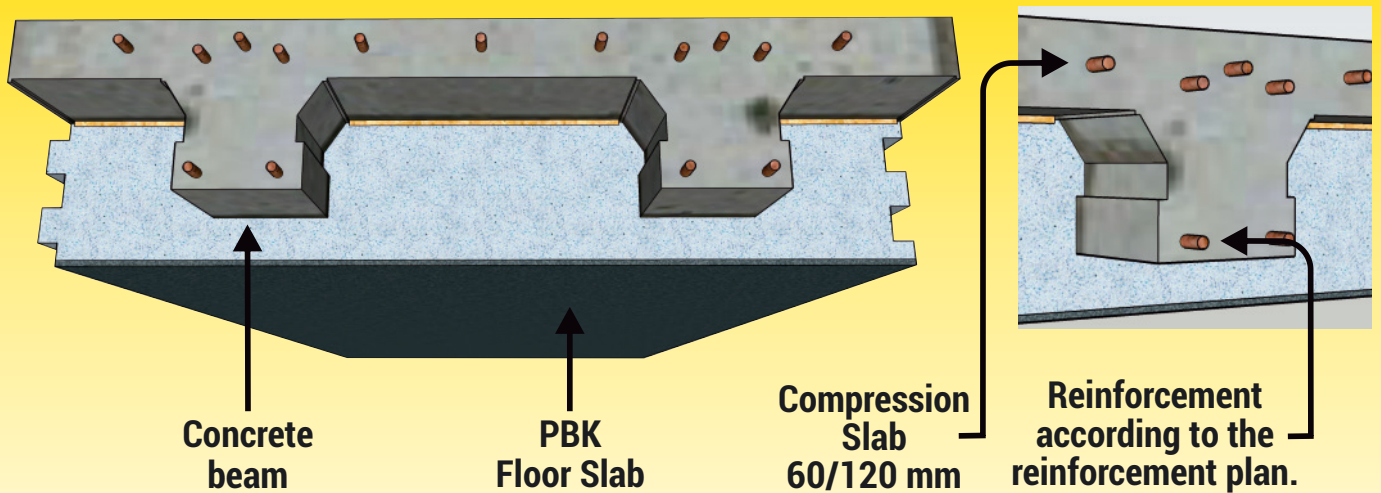
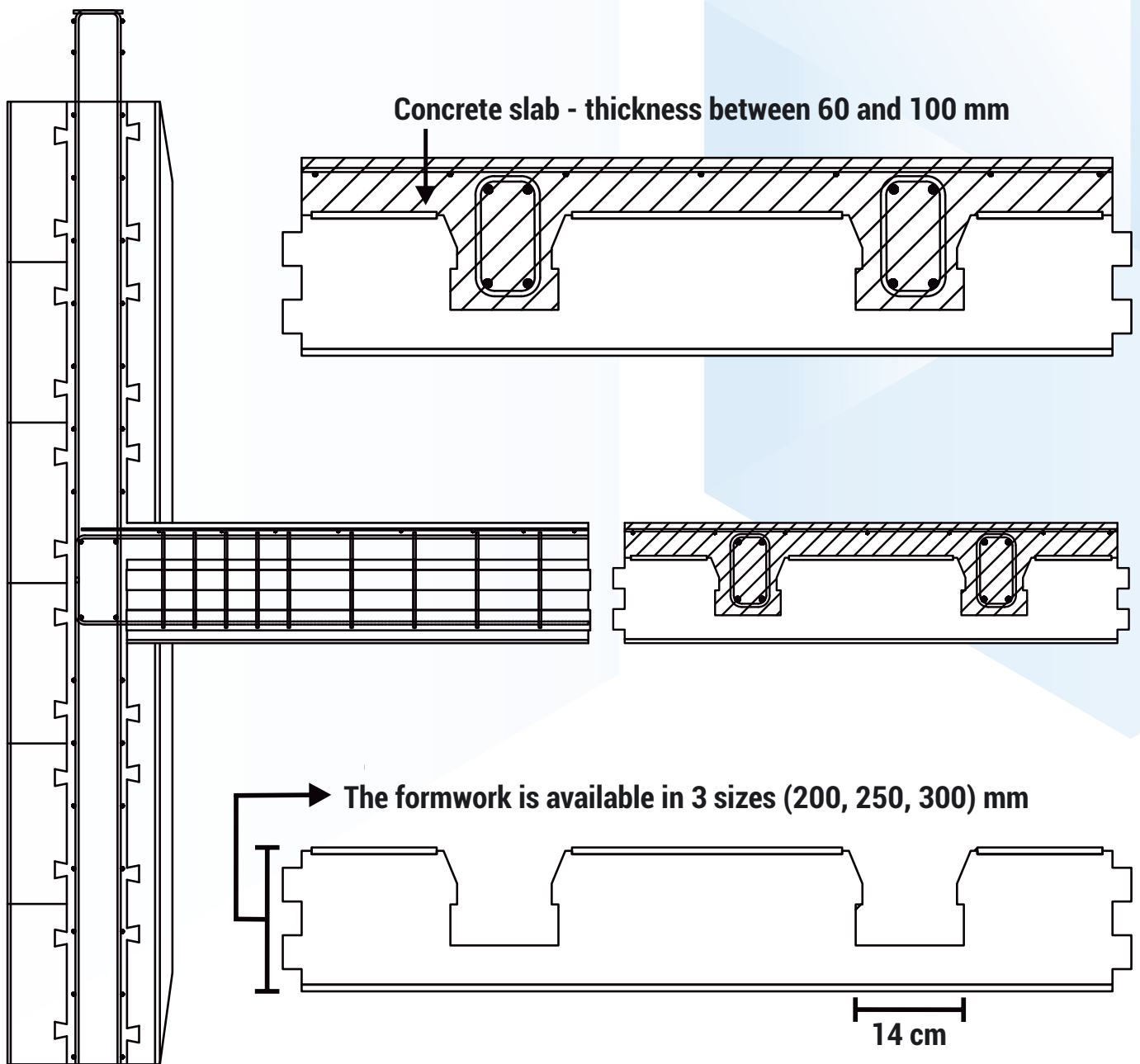
TECHNICAL SPECIFICATIONS

TYPES OF FLOOR SLABS	PBK 200	PBK 250	PBK 300
Load-Bearing Capacity	de la 0 la 5	de la 0 la 6,5	de la 0 la 8,5
Formwork Weight	10 kg /m ²	11 kg /m ²	12 kg /m ²
Slab Support (Shoring)	According to the installation plan		
Slab Thickness	200 mm	250 mm	300 mm
Thermal Resistance	R = 3,980 m ² K/W	R= 3,980 m ² K/W	R = 8,440
Thermal Loss	U = 0,302 W/(m ² K)	U = 0,302 W/(m ² K)	U = 0,237 W/(m ² K)
Total Thickness (including concrete slab)	230 mm	300 mm	350 mm
Fire Resistance (Fiber Cement)	A1		
Thermal Conductivity (Insulation)	$\lambda = 0,035$		
Acoustic Insulation	Rw = 50 dB (-1 ; -4)* / Rw + C = 49 dB / Rw + Ctr = 46 dB		
Metal Reinforcement	Diameter 6,8,10,12,14,16,18, 20		
Concrete Volume	145 l/m ²	160 l/m ²	177 l/m ²
Concrete Mix Ratio	350 kg/m ³ – Consistency S3 – S4 – Granulometry 0-8 / 0-16		

Recommended Floor Slabs Based on Span

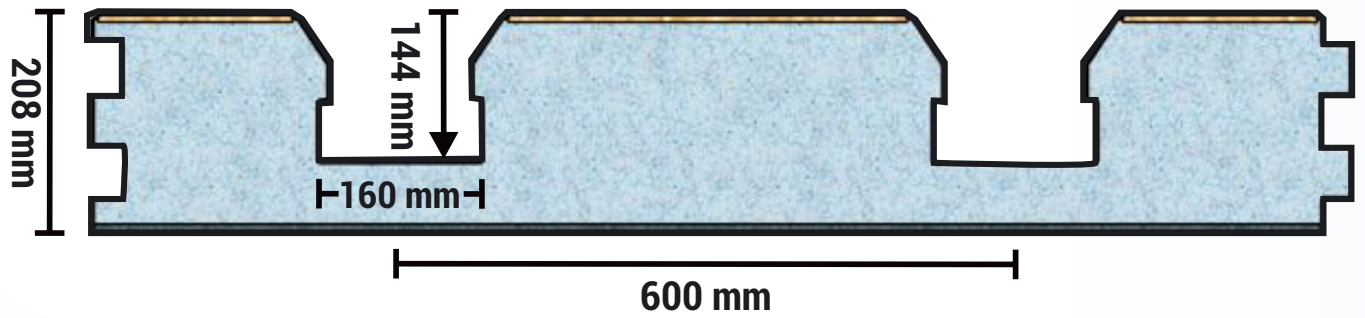
LOADS CONSIDERED FOR STANDARD FLOOR SLAB	<i>Permanent Loads [P]:</i> • Self-weight of Polistibrick floor structure: 3,50 kN/m² • Screed + finishes + suspended ceiling + installations: 2,00 kN/m² <i>Variable Loads [Q]:useful live load (standard floor):</i> 1,50 kN/m² <i>Total Design Load: [1,35P + 1,50Q]</i> 9.68 kN/m²				
FLOOR SLAB SPAN "D" [m]	Distance Between Beams [cm]	Design Bending Moments "M" Ed [kNm]	Recommended Floor Slab Type	Reinforcement Type: (recommended steel diameter)	Notes:
4.00	60	11.61	PBK200	4 ϕ 12 mm longitudinal	-
5.00	60	18.14	PBK200	4 ϕ 14 mm longitudinal	-
6.00	60	26.12	PBK250	4 ϕ 14 mm longitudinal	+ Transverse Stiffening Beam
7.00	60	35.56	PBK250	4 ϕ 16 mm longitudinal	+ Transverse Stiffening Beam
8.00	60	46.44	PBK300	4 ϕ 16 mm longitudinal	+ Transverse Stiffening Beam
9.00	60	58.78	PBK300	4 ϕ 20 mm longitudinal	2 Transverse Stiffening Beams

PBK – OVERVIEW

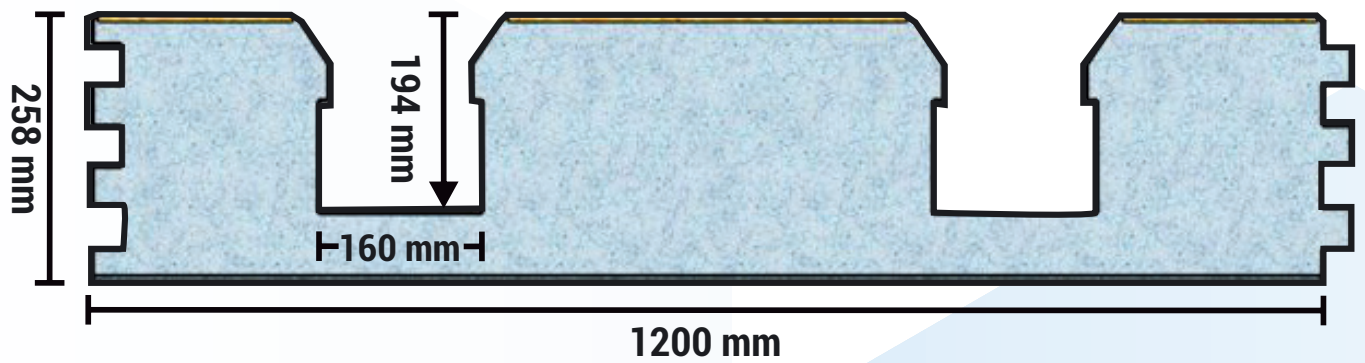


PBK – OVERVIEW

PBK 200

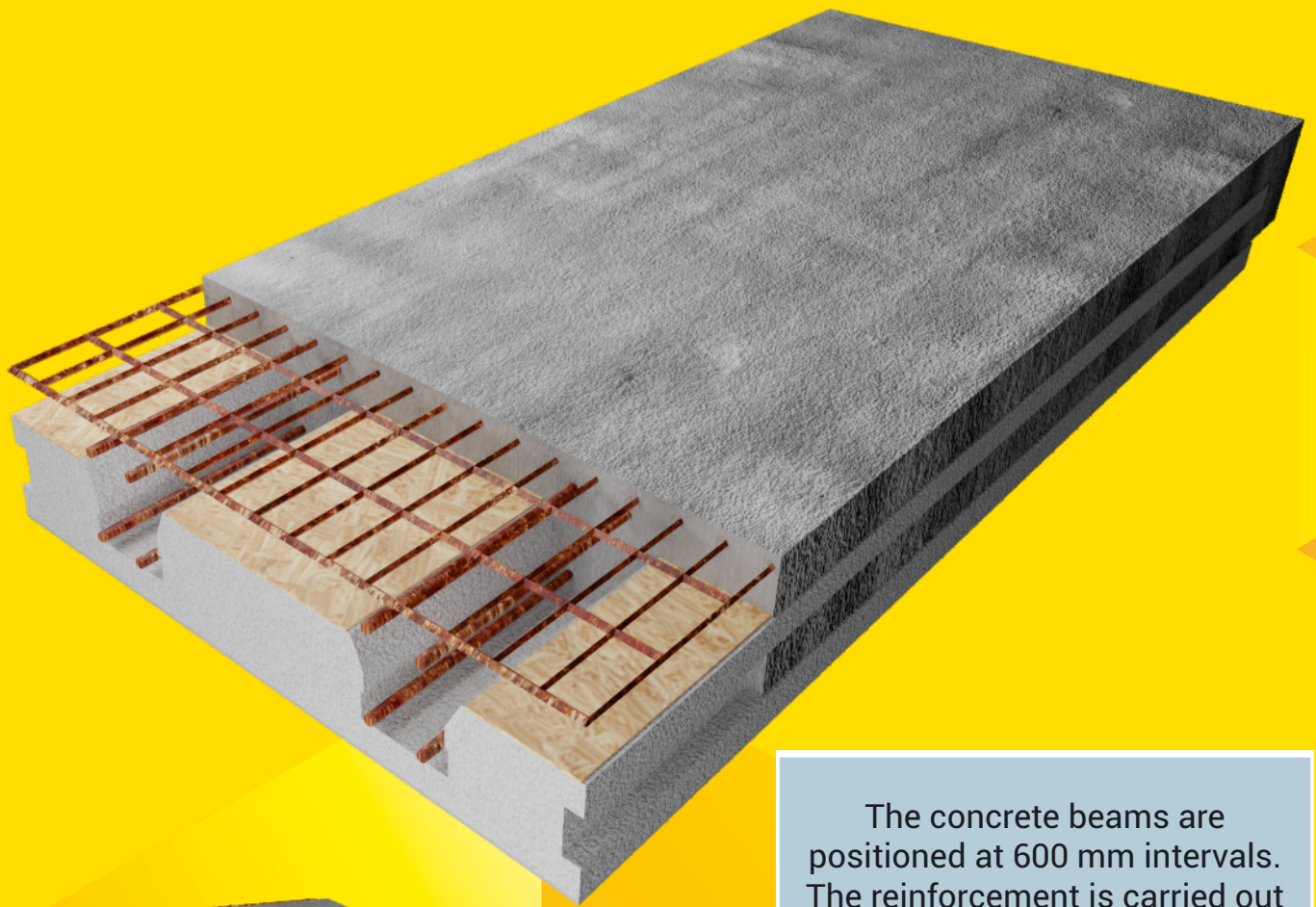


PBK 250

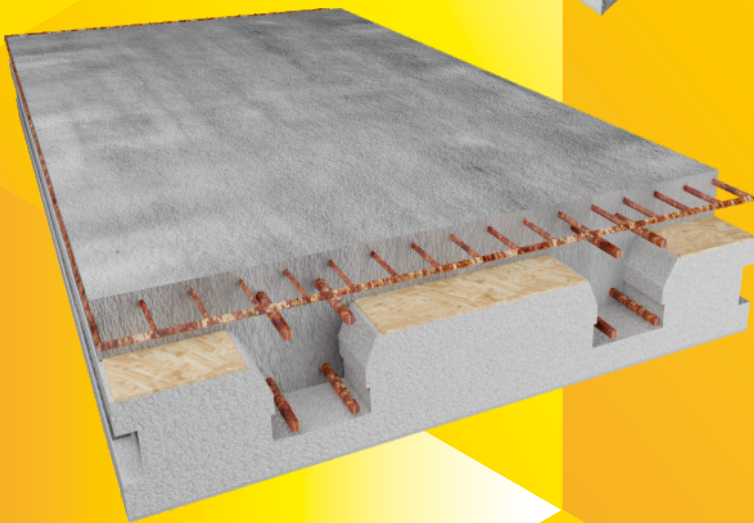


PBK 300





The concrete beams are positioned at 600 mm intervals. The reinforcement is carried out according to the plan provided by the structural engineer. Concrete vibration is mandatory.



The compression plate binds the beams together, forming double resistance compared to the classic plate. Reinforcement is done according to the structural engineer's instructions.

