

PRECAST PANEL-DECK







Cobute has patented an innovative system, **Panel-deck**, designed by Engineer Sandro Antonucci, to ensure fast and high-quality installation of the decking while retaining the full benefits of a **monolithic structure.**

As in the case of the traditional Cobute decking, Panel-deck consists of **three elements:** reinforced concrete panels, longitudinal stiffening lattice frames and polystyrene blocks.

The flat concrete panels are 1m wide, with a thickness ranging from 50 to 70 mm and can be manufactured in any length up to a maximum of 12m. The longitudinal slab reinforcement, which consists of lattice frames, welded mesh, and the polystyrene void formers are custom designed by a Consulting Engineer for each project.



The use of polystyrene void formers brings a wide range of benefits among which **large variation** in slab thicknesses, without any **undue increase** in the in situ concrete thickness. It also contributes to the **light weight** of the slab and the easy **distribution of services. Thermal insulation** is guaranteed; a 250 mm thick slab reports an excellent **R value** of 0.4889.

The manufacturing process allows for the tailoring of the panels to specific requests such as the casting in of downlighter boxes or the creation of penetrations in the panels.

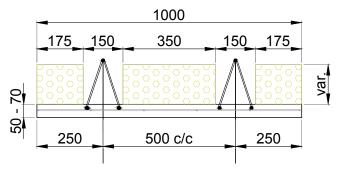
The Panel-deck is cast at the factory and delivered to site. The panels are lifted into place with the use of a crane and the in situ concrete is poured after the additional steel (specified by the Engineer) and mesh have been positioned. **Propping** is required at 1.2m centres and can be removed 14 days after casting of the in situ concrete or as specified by the Engineer.

As is the case for Cobute's slab system, the precast Panel-deck is **Fire resistant.** A 230 mm thick slab has a fire resistance of 150 minutes.

This great addition to the Cobute precast family has a **smooth** off-steel shutter **finish**, with chamfered edges along its length.

Panel-deck caters for a wide range of load requirements, as the position (centre-to-centre) of lattices can be adjusted to suit design specifications. Applications go from roofs to walls, suspended floors and permanent shutters for roads and bridges. The system can also be used as a **permanent shutter** for two-way spanning concrete slabs.

Typical section through Panel-deck



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Advantages:

- Long-lasting, monolithic structure
- Lightweight (97 kg/ m² dead load)
- Fire resistant
- Thermal insulation high R value
- Fast installation with considerable time savings
- Minimal shuttering costs
- Varying length to suit different specifications
- Large range of slab thicknesses and possible loadings
- Custom designed to Engineer's specification
- Easy distribution of services
- Cost effective

