

Lakka[®]



- Space-saving
- Interlocking on all sides
- Short drying time (compare to cast-in-place structures)
- Wavy joint shape improves radiation shielding
- Concrete dry density 3800 kg/m³

NEW!

RADIATION SHIELDING HEAVY CONCRETE BLOCK

HEAVY CONCRETE BLOCK

Heavy concrete blocks are used in radiation-shielding floor, wall, ceiling and partition structures in both new construction and renovation projects.

They can also be used to improve, widen, or thicken specific parts of structures requiring enhanced radiation protection. Thanks to the high density, the product is also suitable for heat-energy storing structures and sound-insulating walls.

The blocks are installed with thin-bed mortar. In radiation-shielding structures, block joints are staggered to optimize protection to the highest possible level.

Concrete dry density 3800 kg/m³

Due to their high density, heavy concrete blocks protect better against radiation than normal concrete. This allows structures to be made thinner, creating more usable interior space.

Utility model protected

The wavy shape of the joints is designed to block radiation as effectively as possible.

Interlocking on all sides

The interlocking makes masonry faster and strengthens the structure. The joints guide the masonry, and thanks to the hidden joint, no visible mortar lines remain. Blocks can be installed without vertical mortar.

Dimensional accuracy

The blocks are manufactured under controlled conditions using earth-moist concrete mass compacted into mould. This ensures dimensional accuracy and uniform quality.

Shorter drying time

The drying time of thin-joint masonry block structures on site is significantly shorter compared to cast-in-place concrete.



Size: 150 x 200 x 150 mm

Weight: 17.5 kg

Pallet: 72 pcs, 1280 kg

Consumption: 33.3 pcs/m²

Dry density: 3800 kg/m³

REFERENCE:

Central Finland Hospital Nova

- Site: Jyväskylä Kukkumäki, completed 2020
- Total area: approx. 100,00 brm²
- Total project cost estimate: approx. €411 million
 - > Radiotherapy unit total area: 330 m²
 - > ~ 20,000 blocks in partition walls and beside cast-in-place walls

"In Finland, it is rare to build radiotherapy units of this size. Hospital Nova was the first project where we decided to use heavy concrete. In some cases, we saved up to a metre in wall thickness by using a combination of heavy concrete and radiation-shielding blocks. Heavy concrete is competitive when large radiation volumes are involved."

Project Manager Sami Kolari, Ramboll Finland Oy

"It was important for us to get a domestic product for this. Deliveries to the site were punctual as agreed. Masonry was made easier by the interlocking system, and the weight of the blocks was not an issue. We are very satisfied with the end result."

Project Engineer Jari Hintsu, SRV



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