

Instructions for use and safety information for SYSTEM 3E EKO+ construction elements made of lightweight concrete (with lightweight aggregates) for external and internal load-bearing walls

1. Product description

Construction elements made of concrete with lightweight aggregates in SYSTEM 3E EKO+ technology intended for external and internal load-bearing and non-load-bearing walls. The elements are designed to be used as load-bearing material for the construction of external and internal walls in residential and non-residential buildings. In dependence on the local requirements and legal circumstances, SYSTEM 3E EKO+ can be applied in building up to 12, 16 or 20 meters in height when used as load-bearing material. In the case of higher buildings, SYSTEM 3E EKO+ can perform as infilling in concrete and steel frame constructions. Details of strength class, average density, dimensional tolerances, and other performance parameters are included in the Declarations of Performance, CE marking, technical data sheet and other information accompanying CE marking.

2. Use of the product

SYSTEM 3E EKO+ elements are designed to be used mortar-free, except the first layer intended to be bound with foundations, higher floors, and above lintels. The technology consists of 37 unique types intended to be used in accordance with the technical design project. It is necessary to ensure that the design project is prepared by a specialised design office and in line with the SYSTEM 3E technical recommendations and local requirements valid in the place of use. On the construction site it is necessary to obey the local rules and requirements on health and safety, as well as the technological regime for the use of S3E building blocks.

The following rules should be followed during the construction work:

- The first layer made of S0 and S0 300 elements should be laid on cement or lime-cement mortar to ensure a rigid connection between the SYSTEM 3E construction and the foundations.
- A thin layer of horizontal waterproofing should be applied before the starting elements are stacked.
- Subsequent layers (S1, S1/2 etc.) shall be stacked mortar-free in accordance with the wall construction layout included in the technical construction project.
- Before the next layer is stacked mortar-free, any dirt and/or imperfections that may affect the quality of the work should be removed from the surface.
- Final layer under lintels and under reinforced concrete tie band made of SZ.EO and similar elements, should be stacked mortar-free as well and cleaned before further works.
- SYSTEM 3E EKO+ elements must not be wet, frozen, covered by frost or snow while using.
It is necessary to ensure that the newly built walls are protected from excessive dampening and displacement while works are discontinued.
- Observe the health and safety rules applicable during the construction work.

3. Packaging

The construction elements are packed on pallets and protected with stretch foil. The pallets have a maximum of 24 elements. The weight of a pallet is between 800 and 900 kg, depending on the number of included elements.

4. Storage and transport

While transporting, the pallets must be secured so that they cannot move. The pallets can be unloaded with a forklift or crane on site after delivery. After unloading, the pallets must be placed on a level and firm surface.

When the stretch foil has been removed, the items should be protected from rain or snow. Pallets held in layers should be stacked in a single layer in a dry place free from adverse weather conditions.

5. Safety

When carrying out the work, the health and safety provisions of the relevant legislation must be complied.

6. Observe

When building the walls of SYSTEM 3E construction elements, the rules of construction know-how and technical knowledge apply. The producer (distributor) is not responsible for the consequences of incorrect use of the product(s). The producer reserves the right to make any changes resulting from technological progress. The information provided by employees of SYSTEM 3E S.A. that goes beyond these instructions must be confirmed in writing. The construction product does not contain any hazardous substances as defined in Article 31 or Article 33 of regulation REACH No 1907/2006 (Official Journal of the European Union L 353, 31.12.2008, p. 1).