

CE Marking of Precast Concrete

Ensure precast concrete product conformity and access the entire European market



Precast concrete elements are modular structures that are gaining ever increasing popularity in construction, due to the many advantages they offer. They are a critical construction product, since their structural attributes directly influence the integrity and safety of buildings (houses, offices, industrial premises, etc.) and civil engineering structures (bridges, tunnels, walls and screens, etc.).

Sales of precast concrete elements in Europe are governed by the Construction Products Regulation 305/2011. Manufacturers or their representatives in the European Union are solely responsible for compliance of their products with the terms of the regulation, both for trade and use. When a manufacturer identifies its precast concrete elements with the CE mark, this shows that the elements comply with the harmonized standards and therefore fulfill the essential requirements of the regulation. CE marking of precast concrete elements is regulated by a 2+ assessment system, which requires the intervention of a notified body to perform the factory production control audit.

Solution

Applus+ is Notified Body* for CE marking of precast concrete elements. We work with producers throughout the CE marking process of their products, from the testing phases through production control audits. CE marking of precast concrete elements is based on the 2+ assessment system and the following harmonized standards:

- EN 1168:2005
+A3:2011 Precast concrete products. Hollow core slabs
- EN 1520:2011 Prefabricated reinforced components of lightweight aggregate concrete with open structure with structural or non-structural reinforcement
- EN 12737:

2004+A1:2007 Precast concrete products. Floor slats for livestock
EN 12794:
2005+A1:2007
EN 12794:
2005+A1:2007 Precast concrete products. Foundation piles
/AC:2008
EN 12843:2004 Precast concrete products. Masts and poles
EN 13224:
2011 Precast concrete products. Ribbed floor elements
EN 13225:2004
EN 13225:2004
/AC:2006 Precast concrete products. Linear structural elements
EN 13693:
2004+A1:2009 Precast concrete products. Special roof elements
EN 13747:
2005+A2:2010 Precast concrete products. Floor plates for floor systems
EN 13978-1:
2005 Precast concrete products. Precast concrete garages. Requirements for
reinforced garages monolithic or consisting of single sections with room
dimensions
EN 14843:2007 Precast concrete products. Stairs
EN 14844:
2006+A2:2011 Precast concrete products. Box culverts
EN 14991:2007 Precast concrete products. Foundation elements
EN 14992:2007 Precast concrete products. Wall elements
EN 15037-1:
2008 Precast concrete products. Beam-and-block floor systems. Beams
EN 15037-2:
2009+A1:2011 Precast concrete products. Beam-and-block floor systems. Concrete
blocks
EN 15037-3:
2009+A1:2011 Precast concrete products. Beam-and-block floor systems. Clay blocks
EN 15037-4:
2010 Precast concrete products. Beam-and-block floor systems. Expanded
polystyrene blocks
EN 15037-5:
2010 Precast concrete products. Beam-and-block floor systems. Lightweight
blocks for simple formwork
EN 15050:
2007+A1:2012 Precast concrete products. Bridge elements
EN 15258:2008 Precast concrete products. Retaining wall elements

For this process, a series of tasks to be carried out by the manufacturer and another to be completed by the Notified Body are defined:

Manufacturer responsibilities:

- Type Testing (ITT) of the precast concrete elements (they can be performed by the manufacturer's own resources or by an accredited laboratory). A broad range

of tests are required according to the use of the precast element, including:
Composition of components, distribution and geometry, mechanical behavior,
bending, cutting and durability testing, etc.

- Factory Production Control (FPC) implementation at production plants
- Draw up a program of follow-up testing, specifying types, frequencies, etc.

Responsibilities of the notified body:

- FPC initial inspection, its assessment and acceptance
- Annual safety and assessment inspections

CE Marking documents:

- Factory Production Control certificate (NB)
- Declaration of performance of the precast concrete element (Manufacturer)
- CE marking and labeling of the precast concrete element (Manufacturer)

Applus+ has over 100 years of experience working throughout the construction industry. We perform certification processes and thousands of tests on multiple construction products.

** Applus+ is the commercial brand of LGAI Technological Center S.A., Notified Body nº 370.*

Benefits

- One stop shop for product characterization testing and factory production control audits
- Greater control over your product and your process, as well as reducing non-quality costs.
- Greater accuracy and uniformity of the technical values of your products
- Market your product throughout the European Union