

C.P.A. S.R.L.

## ISOBLOK 300 KS

DISPOSABLE ISOTHERMAL FORMWORK  
FOR THE CONSTRUCTION ON SITE OF



C.P.A. srl

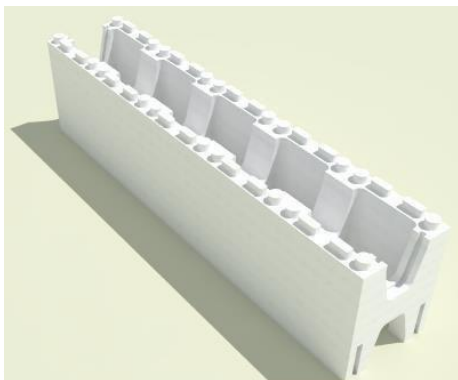
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## Features



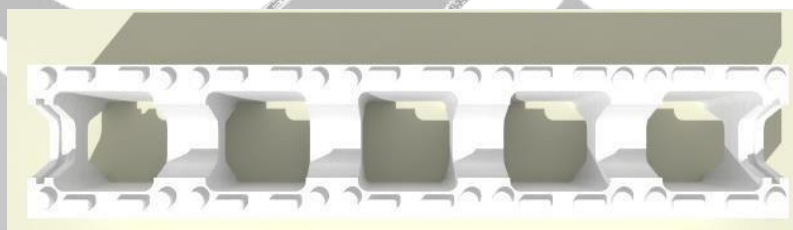
ISOBLOK modular preformed formwork system in EPS 200 according to EN 13163.

The ISOBLOK formwork is a pre-formed system for a quick and clean construction, on site, of reinforced concrete swimming pools, in which it is used as a disposable isothermal formwork.

EPS (Sintered Expanded Polystyrene) ensures that ISOBLOK formworks are stable, rot-proof and waterproof, maintaining these characteristics over time. The raw material used to make the blocks is

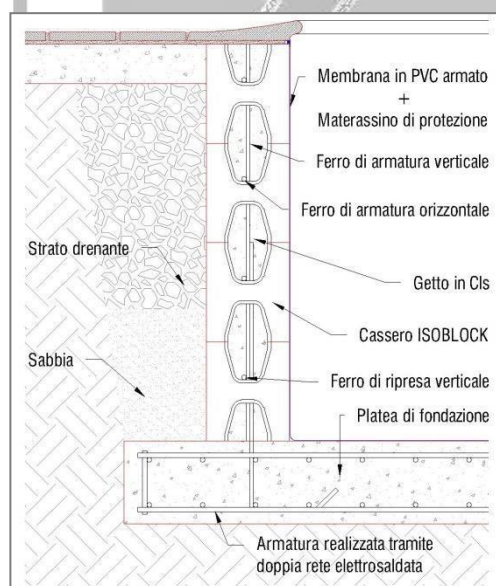
the same used for the production of food containers and able to allow the product to withstand both thermal and mechanical stress unaltered.

EPS is an eco-friendly material fully integrated into a recycling cycle starting from production waste: the unused material is re-generated to produce new products. So much so that it is accompanied by a declaration of eco-compatibility. The EPS is characterized by closed cells in which the air is forfeited: this feature determines both its lightness and its excellent heat capacity. The transmission of heat can only occur by conduction and the presence of internal air, in equilibrium with the external air, allows the EPS to maintain its conductivity stable over time.



The ISOBLOK modular formwork is made by molding with a nominal density of 30 kg / m<sup>3</sup> and has a thermal conductivity of  $\lambda = 0.033 \text{ W / mK}$ .

## Geometric characteristics



Each block, which can be divided into 5 modules, has dimensions of 1250 \* 300 \* 250 mm and is available in two versions: the straight one for the creation of the simplest and most linear geometric shapes and the one that can be curved. The bendable version allows the ISOBLOK formwork to adapt to any free form, giving ample space to the creativity of the designer and the customer.

Its ductility is linked to special bending keys which, inserted in sequence, allow the base module to follow all the rays usually present in private and public swimming pool projects.

## Water and EPS

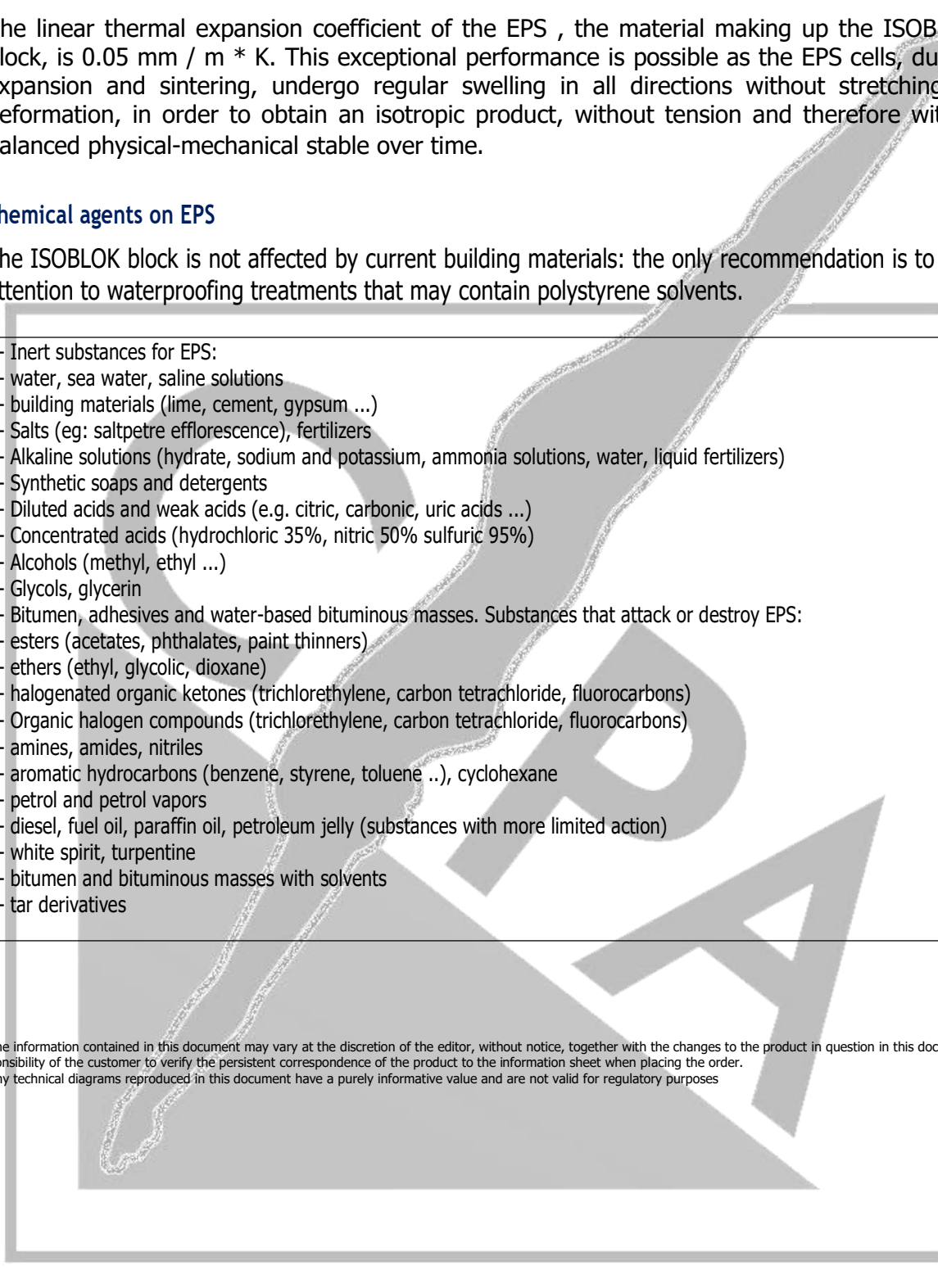
The water does not dissolve the EPS, it passes through the walls of the closed cells of the material constituting the ISOBLOK formworks and therefore cannot be absorbed.

## Dimensional Stability

The linear thermal expansion coefficient of the EPS, the material making up the ISOBLOK block, is 0.05 mm / m \* K. This exceptional performance is possible as the EPS cells, during expansion and sintering, undergo regular swelling in all directions without stretching or deformation, in order to obtain an isotropic product, without tension and therefore with a balanced physical-mechanical stable over time.

## chemical agents on EPS

The ISOBLOK block is not affected by current building materials: the only recommendation is to pay attention to waterproofing treatments that may contain polystyrene solvents.

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- Inert substances for EPS:
  - water, sea water, saline solutions
  - building materials (lime, cement, gypsum ...)
  - Salts (eg: saltpetre efflorescence), fertilizers
  - Alkaline solutions (hydrate, sodium and potassium, ammonia solutions, water, liquid fertilizers)
  - Synthetic soaps and detergents
  - Diluted acids and weak acids (e.g. citric, carbonic, uric acids ...)
  - Concentrated acids (hydrochloric 35%, nitric 50% sulfuric 95%)
  - Alcohols (methyl, ethyl ...)
  - Glycols, glycerin
  - Bitumen, adhesives and water-based bituminous masses. Substances that attack or destroy EPS:
  - esters (acetates, phthalates, paint thinners)
  - ethers (ethyl, glycolic, dioxane)
  - halogenated organic ketones (trichlorethylene, carbon tetrachloride, fluorocarbons)
  - Organic halogen compounds (trichlorethylene, carbon tetrachloride, fluorocarbons)
  - amines, amides, nitriles
  - aromatic hydrocarbons (benzene, styrene, toluene ..), cyclohexane
  - petrol and petrol vapors
  - diesel, fuel oil, paraffin oil, petroleum jelly (substances with more limited action)
  - white spirit, turpentine
  - bitumen and bituminous masses with solvents
  - tar derivatives

### Note

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