HYDROBETON

WATERPROOFING ADMIXTURE FOR LARGE-SCALE CONCRETE CASTS WITH CRYSTALLIZING EFFECT





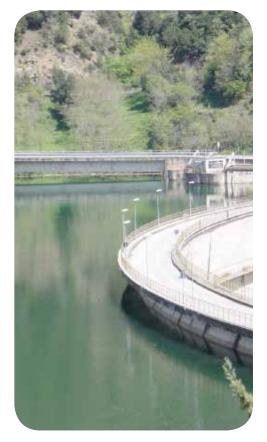
HYDROBETON is a powder product formulated for waterproofing concrete. In the mixing phase **HYDROBETON** exhibits a three-fold action that reduces the water-concrete ratio, combines submicron particles with a crystallizing and sealing effect that decrease the porosity of the cement mix and entrains air bubbles that make your concrete waterproof and more resistant to frost and thaw.

BENEFITS

HYDROBETON is an admixture that is added to the mix design when the concrete is being prepared in order to waterproof the cement.

The special characteristics of the product are:

- ✓ It effectively and permanently waterproofs concrete: HYDROBETON
 activates a chemical reaction inside the pores of the concrete, which generates
 pozzolanic reaction products with a crystal morphology that integrate into the
 conglomerate enhancing its microstructure and making it waterproof.
- √ It improves resistance to freeze-thaw cycles: The reduction in the water-cement ratio combined with the crystallizing effect and the entrainment of micro-bubbles triggered by HYDROBETON, enhance the concrete's microstructure thus increasing resistance to freeze-thaw cycles.
- √ It reduces shrinkage and hence the possibility of cracking: Concrete
 prepared with HYDROBETON presents a 50% lower probability of cracking than
 that of a traditional concrete.
- √ Self-sealing capacity up to 0.4 mm: Thanks to its crystallization action, which is continuously reactivated, HYDROBETON is capable of sealing microcracks of up to 0.4 mm.
- ✓ It increases the chemical resistance and durability of concrete: The
 reduced permeability and the reduction of porosity, that ensure a lower
 penetration of carbon dioxide and aggressive agents in general, enhance the
 strength and durability of concrete prepared with HYDROBETON.







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USES

HYDROBETON is suitable for use when preparing concrete for structures in constant or occasional contact with water such as:

- √ Basins, tanks and reservoirs that may also contain drinking water
- √ Water purifiers and treatment plants
- √ Foundation work, slabs and retaining walls
- √ Docks and harbour works
- ✓ Over ground and underground car parks
- √ Swimming pools

MIXING METHOD AT THE CONCRETE MIXING PLANT

Dry mix on the aggregate belt loader

HYDROBETON will be manually added onto the aggregate belt loader or to the hopper. Slowly sprinkle **HYDROBETON** over the aggregates to obtain a uniform mix.

Warning

On no account should HYDROBETON be added directly on-site as this would fail to ensure a proper blend of the admixture with the concrete.

For fluid and super-fluid concrete, use HYDROBETON in combination with our fluidifying agents (FLUIBETON and/or DRACRIL).

COMPATIBILITY 'WITH THE TYPE OF CEMENT USED IN THE CONCRETE

HYDROBETON reacts with CaOH (free lime) present in the concrete matrix; it is therefore necessary to check the cement type used in the mix design, which must be CEM I or CEM II PORTLAND cement. Pozzolanic cements may have important adverse effects on the crystallizing chemical reaction (consult the DRACO technical office).

PACKAGING AND STORAGE

HYDROBETON is packaged in:

- 12 kg bags
- 20 kg pail

If kept in its original packaging and properly stored under cover in a dry place the product maintains its characteristics for a year.





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PRODUCT FEATURES

APPEARANCE AND COLOUR	Grey powder
MAIN ACTION	Large-scale waterproofing of concrete
SECONDARY ACTION	Reduction of the W/C ratio, micro aerating
SLUMP TEST - EN 12350-2	190
MAINTENANCE OF CONSISTENCY AFTER 30' - EN 480-8	170
CHLORIDE ION CONTENT (≤ 0.05%) EN 480-10	0.031%
PACKAGING	12 kg bag
	20 kg pail
CUSTOMS CLASS	3824/40/00
SHELF LIFE	12 months

APPLICATION DATA UNI EN 934-2 (T3.1/3.2/9)

MIX COLOUR	Grey
DOSAGE	1.5 - 2 kg per 100 kg cement
PH OF MIX	> 12
MINIMUM RECOMMENDED CEMENT CONTENT	300 kg/m ³
MINIMUM RECOMMENDED CEMENT CONTENT FOR STRUCTURES IN CONTACT WITH WATER	350 kg/m³
RECOMMENDED W/C RATIO	0.45 ÷ 0.50
MINIMUM TEMPERATURE OF THE CONCRETE ADMIXED WITH HYDROBETON	+5 to +35°C
CAPILLARY ABSORPTION - EN 480-5	after 7 days 47.73% after 90 days 55.25%
AVERAGE MECHANICAL STRENGTH - EN 12390-3 PROSPECT 3.1	51.1 N/mm²