



İKSA Construction Chemicals

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HIDROBET-L

Efflorescence Reducer and Water Resisting Admixture for Concrete

DESCRIPTION

HIDROBET-L is an efflorescence reducer for semi-dry (zero slump) concrete precast elements.

It is used in pavers, concrete tiles and colored garden and landscaping elements made from semi-dry (zero slump) concrete.

STANDARTS

HIDROBET-L conforms to EN 934-2 Table:9 Water Resisting admixture. HIDROBET-L is signed with the CE marking according to the technical requirements of the European Standard EN934-2:2011. Certification No: 1783-CPD-001

APPLICATION

HIDROBET-L makes better dispersion of cement and gives good wetting capability of additives and pigments that are used in zero slump concrete mixes.

Efflorescence does not only affect the durability of concrete but it's an unesthetic appearance of concrete elements and structures as well. Efflorescence in concrete occurs when the calcium hydroxide and salts in concrete dissolve and come to the surface of the concrete. This creates a thin white layer of crystals on the surface of the concrete. A humid environment plays an important role in the occurrence of efflorescence. Efflorescence occurs rapidly in the first months after concrete is poured but subsides over time.

During the hydration reaction of cement, calcium silicate with water forms calcium-silica-hydrate gels and calcium hydroxide crystals $\text{Ca}(\text{OH})_2$, which provide the binding property of the cement.

Salts from the ingredients of concrete or coming from the environment and calcium hydroxide are dissolved by the water that penetrates concrete and move towards the surface of the concrete by capillary action. The water that reaches the surface evaporates, and the calcium hydroxide and salts form a layer of precipitate on the surface of the concrete. Then calcium hydroxide meets the carbon dioxide in the air and is transformed into CaCO_3 (calcium carbonate) which forms the thin, white in colour layer on the surface of the concrete elements.

HIDROBET-L reduces and/or stops the efflorescence effect on the surface of the concrete elements.

It reduces the frictional forces between cement and aggregates which acts as good dispersion.

It introduces smallest and well distributed air pores into the concrete.

Hydrophobic effect increases against water.

It enables an economic production of better-quality concrete products with improved density and strength, smooth surfaces.

It reduces the capillary action within the concrete.

Helps to get uniform and intense color of the concrete.

It reduces and/or efflorescence tendency.

Increases resistance to freezing/thawing and de-icing salts.

It is advised to use in the following applications:

- Decorative stone and concrete
- Drives and forecourts
- Patios and paths
- Masonry and brickwork
- Concrete walls
- Cast stone
- Concrete bricks, blocks, block paving
- Precast dry concrete

HIDROBET-L Provides frost resistance.

- Inhibits algae and moss growth
- Preserves original appearance
- Stops or reduces efflorescence
- Reduced water permeability
- Improves colour retention
- Low odour, low toxicity formula



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METHOD OF APPLICATION

HIDROBET-L is supplied as ready for use. It is advised to stir before use. It shall be added with the mixing water or introduced at the end of the mixing process. The necessary mixing time after the admixture dosage depends on the individual mixer.

Consumption:

0,2 - 0,6 % of total binder weight.

PHYSICAL PROPERTIES

Appearance	: Light Yellow liquid
Density (ca.)	: $1,0 \pm 0,02$ kg/L
pH	: 10,00 – 11,00
Na ₂ O equivalent	: $\leq 2\%$ (EN 480-12)

PACKING

HIDROBET-L is supplied in 30kg plastic, 200kg drums, 1000kg IBC and bulk.

STORAGE

HIDROBET-L has 1 year shelf life in sealed and undamaged containers. The storage is to be done in places protected against freezing. After prolonged storage, stir well the product before using.

SAFETY

HIDROBET-L is a nontoxic material. No special precaution is required during handling. For detailed information MSDS is available.

Regarding the design, development, production and distribution of its products, İKSA is certified and applies the quality assurance system ISO 9001.