

HydroPlast® N

Waterproofing Chemical Admixture for Concrete

Product Definition

HydroPlast N is a modified lignosulphonate based chemical admixture reducing the surface absorption and water permeability of concrete. HydroPlast N enhances the flowability of fresh concrete.

Use

HydroPlast N is recommended for use in the applications below.

- To reduce the low-pressure or unpressurised water permeability of concrete.
- Swimming pool, open channel and tunnel segment constructions.
- Concretes designed for wastewater treatment plants, dams, culverts and water reservoirs.
- Concrete elements under the high risk of water absorption by capillary suction.
- To reduce water ingress in tidal and splash zone of water structures.

Advantages and Properties

- Enhances the impermeability of concrete by reducing the size, number and continuity of capillary pore structure of the cement paste.
- Enhances durability due to the decreased water permeability of the cementitious paste.
- Improves the workability without increasing the water content.
- Reduces shrinkage.
- Does not contain chloride or any other substances that may cause corrosion.

Application Details, Suggestions and Warnings

- HydroPlast N should be added to the mixing water or directly added to fresh concrete during mixing. In case of the direct addition to the fresh mixture, additional mixing time should be applied. Hydroplast N should not be added to the dry mixture.
- As the dosage of the chemical admixtures is greatly influenced from cement type, properties of the concrete ingredients and mix design, it is recommended that the optimum dosage of admixture should be determined on trial batches.
- HydroPlast N is generally compatible with the Portland cement types described in EN 197-1 and ASTM C150. In addition, it can be used in concrete mixes containing mineral admixtures such as silica fume, fly ash and ground granulated blast furnace slag. However, the presence of mineral admixtures in the mixture is greatly influence the required dosage of the admixture for a specified target. The optimum dosage of HydroPlast N should be determined on trial batches.
- There is no known incompatibility with the other type of chemical admixtures and can be used with the others in the same mixture. In case of the combined usage, the different types of chemical admixtures should not be mixed together and be used separately. In case of a combined usage with superplasticizers, the superplasticizer dosage should be determined.

Recommended Dosage

The recommended dosage of HydroPlast N is around 0.5 % of the weight of binding material (cement + mineral admixture). It is recommended that the optimum dosage should be determined on trial batches in which the strength development and capillary suction are controlled. Overdose may result in excessive increase in setting time and air entrainment. In such a case, the concrete surface should be protected from evaporation by keeping the surface wet.

Technical Properties

Colour and form	Brown – Liquid
Chemical base	Modified lignosulphonate based liquid
Density (kg/lt)	1.05– 1.09 (at +20 °C)
Chloride ion content	Max 0.1% - Chloride free acc. to EN 934-2
pH	6 - 10
Conformity	TS EN 934-2 Table 2

Cleaning of Tools

Concreting tools contact with HydroPlast N can be easily cleaned with water.

Packaging

25 kg drum

1000 kg IBC

Bulk delivery

Storage and Shelf Life

Shelf life of HydroPlast N is 12 months when stored in its original package and recommended storage conditions. HydroPlast N should be stored in dry conditions between +5 °C and +35 °C. It should be protected from direct sunlight and frost.

Security and Health

In case of contact with skin, wash with clean water. In case of contact with eye, wash with clean water. Eye contact should be medically consulted immediately. For further information please refer to Material Safety Data Sheet (MSDS) of the product.

Legal Liability

The technical recommendations in this product data sheet are based on the experimental studies performed on reference concrete mixtures designed in the R&D laboratories of LYKSOR. The results may not be applicable to different concrete mixtures produced with different materials than the ones used in the experiments in Lyksor. All customers and users are required to determine the appropriate LYKSOR products for their intended use and to test the suitability of LYKSOR product for their application. Please contact LYKSOR for the appropriate product selection and usage details. LYKSOR is not responsible for the improper usage of the products.