

Nanoment® SP NT

High-Range Water Reducing / Superplasticizing Chemical Admixture for Concrete

Product Definition

Nanoment SP NT is a Vinyl Copolymer based, high-range water reducing and superplasticizing type of chemical admixture designed for the needs of ready-mix concrete production.

Use

Nanoment SP NT is recommended for use in the applications and purposes below.

- Ready-mix concrete requiring high workability and workability retention property.
- Heavily reinforced structural elements such as shear walls, columns and beams.
- Industrial floors.
- Reinforced concrete slabs and floors.
- Concreting operations in places where the placing of fresh concrete is difficult.
- Concreting works requiring very smooth concrete surface and surface finishing.

Advantages and Properties

- Provides an effective dispersion of cement particles with its special chemical microstructure.
- Nanoment SP NT is a chemical admixture which, without affecting the consistency, permits a high reduction in the water content of a given concrete, or which, without affecting the water content, increases the slump/flow considerably, or produces both effects simultaneously.
- Usage of Nanoment SP NT in an appropriate dosage increases the workability of fresh concrete and provides easiness in mixing, transporting, placing and vibration works.
- Enhances workability without segregation risk.
- Reduces the permeability and improves durability of hardened concrete by achieving the target workability class in lower water to binder ratios.
- Improves the ultimate strength of hardened concrete as compared to a reference concrete in the same consistency without chemical admixture.
- Enhances the cohesion of fresh concrete and provides easiness in surface finishing works.
- Reduces shrinkage and creep of concrete.
- Does not contain chloride or any other substances that may cause corrosion.

Application Details, Suggestions and Warnings

- Nanoment SP NT should be added to the mixing water or fresh concrete during mixing. In case of addition to fresh concrete, additional mixing time should be applied. Nanoment SP NT 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.
- Nanoment SP NT is generally compatible with the Portland cement types described in EN 197-1. In addition, it can be used in concrete mixes containing mineral admixtures such as

silica fume, fly ash and ground granulated blast furnace slag. The optimum dosage of Nanoment SP NT should be determined on trial batches.

- Standard curing procedures should be followed.
- Concrete surface should be kept wet in fresh concretes to avoid plastic shrinkage cracks.

Recommended Dosage

The recommended dosage rate of Nanoment SP NT for general concreting operations is between 0.50 % - 1.50 % of the weight of binding material (cement + mineral additive). Overdose may cause segregation, excessive bleeding and increase in setting time. It should be considered that the required dosage of Nanoment SP NT to achieve a target performance will be different for each concrete mixture. The appropriate dosage should be determined on trial batches. Please contact Lyksor R&D department for technical support.

Technical Properties

Colour and form	Brown – Liquid
Chemical base	Vinyl Copolymer
Density (kg/l)	1.12 – 1.16 (at +20 °C)
Chloride ion content	Max 0.1% - chloride free acc. to TS EN 934-2
Alkali content	Max 5%
pH	4.0 – 8.0
Conformity	TS EN 934-2 Table 11.1 – 11.2

Cleaning of Tools

Concreting tools contact with Nanoment SP NT can be easily cleaned with water.

Packaging

25 kg drum

1000 kg IBC

Bulk delivery

Storage and Shelf Life

Shelf life of Nanoment SP NT is 12 months when stored in its original package and recommended storage conditions. Nanoment SP NT 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 medical consulted immediately. For further information please refer to Material Safety Data Sheet (MSDS).

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.