

# Viscostar 3K

## High-efficiency viscosity modifying admixture used in the production of self-compacting concrete without fillers

### DESCRIPTION OF PRODUCT

**Viscostar 3K** is a liquid admixture, specially formulated for use in the production of ready-mixed and precast concrete which requires high fluidity with no segregation. Control of the viscosity achieved using **Viscostar 3K** allows for the production of self-compacting concrete with little or no fillers.

### WHERE TO USE

Thanks to its special, innovative formulation, **Viscostar 3K** represents a real breakthrough in the construction industry, in that, by modifying the dosages applied, it is possible to reach performance levels which solve three specific problems and/or requirements:

- improvement of pumping action of concrete;
- integration of fine and very fine particles in the production of concrete with crushed aggregates or with low doses of cement;
- production of self-compacting concrete which conforms to current norms and standards regarding fluidity, slump and resistance to segregation without adding minerals (fillers).

### TECHNICAL CHARACTERISTICS

**Viscostar 3K** is an active polymer-based admixture in a water solution, which allows tight control of the cohesion of the cementitious paste, and the production of self-compacting, cementitious mixes with a reduced content of ultra-fine particles. Thanks to the product's high efficiency, **Viscostar 3K** avoids segregation and bleeding of the concrete, and helps maintain the fluidity and passing ability of the concrete.

### COMPATIBILITY WITH OTHER PRODUCTS

**Viscostar 3K** is compatible with other admixtures used in the manufacture of high-quality concrete, and especially with:

- superplasticizers admixtures from the **Dynamon** and **Chronos** range, to make mixes with a low water/cement ratio, long workability times and/or quick development of the concrete's mechanical properties after short curing times;
- hardening accelerating chloride-free admixtures from the **Mapefast** range for reaching very high mechanical strengths at early ages;
- air entraining admixtures from the **Mapeair AE** range used in the production of concrete resistant to freeze/thaw cycles;
- **Mapelast SF**, micro-silica-based powder, used in the production of "top-quality" concrete with high mechanical strength, waterproofing and durability properties;
- form-release agents range from the **Mapeform Eco** and **DMA** used to strip form-work from concrete.

### HOW TO USE

Add **Viscostar 3K** in the cement mixer after all the other ingredients (cement, aggregates, water and acrylic super-plasticizing admixture). Mix until a homogenous mix is obtained.

TECHNICAL DATA (typical values)	
<b>PRODUCT IDENTITY</b>	
Consistency:	liquid
Colour:	transparent
Density according to ISO 758 (g/cm <sup>3</sup> ):	1.02 ± 0.02 at +20°C
Main action:	high-efficiency, viscosity modifying admixture for self-compacting concrete
Secondary action:	pumping aid, mix consistency improver for fine particles
Classification according to EN 934-2:	viscosity modifying admixture, tables 13
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na <sub>2</sub> O equivalent) according to EN 480-12 (%):	< 1.0
pH according to ISO 4316:	7.5 ± 1.0

### CONSUMPTION

#### Dosage in volume:

- from 0.3 to 0.6 l per m<sup>3</sup> of concrete if used as a pumping aid;
- from 0.5 to 1.5 l per m<sup>3</sup> of concrete if used as a mix improver for poor quality sand;
- from 1 a 2.5 l per m<sup>3</sup> of concrete if used instead of mineral admixtures in self-compacting concrete.

Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI Technical Services Department.

### PACKAGING

Viscostar 3K is available in bulk quantities, in 200 l drums and in 1000 l tanks.

### STORAGE

Viscostar 3K may be stored for 12 months in sealed containers. Protect from frost.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Viscostar 3K is not considered a dangerous substance according to current regulations regarding the classification of mixtures. However, the use of protective gloves and goggles and the application of the usual precautions taken when handling chemical products are recommended.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

### PRODUCT FOR PROFESSIONAL USE.

### WARNING

*Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



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