

1. Product Description

StenMix® SUPA 700 is a high-range water-reducing, superplasticizing admixture raw material for Portland cement concrete. It is based on an ionic polymer of VAM and maleimide, which functions as a strong ionic dispersant for concrete components. It can be used to boost performance of lignosulfonate, BNSF and melamine sulfonate based admixtures that conform to requirements of EN 934-2 Table 3 (High Range Water Reducer/Plasticizer Standard) and ASTM C 494 Type F (Standard Specification for Chemical Admixtures for Concrete - Water Reducing, High Range Admixtures).

2. Uses

StenMix® SUPA 700 is suitable for enhancing the dispersion power of traditional superplasticizers. It can be used to increase water reduction and expected ultimate strength of the admixture formulation. **StenMix® SUPA 700** can be used to replace about 20% of naphthalene sulfonate content of high-range naphthalene-sulfonate-based admixtures to achieve PCE-like water reduction performance.

This use is especially prevalent when the clay content of the concrete is expected to be variable. **StenMix® SUPA 700** can be used to replace about 5%-15% of polymer content of superplasticizers to economize on raw materials. **StenMix® SUPA 700** decreases the water requirement of the concrete by 15%-40% when dosage limits are observed.

3. Application

StenMix® SUPA 700 can be added to admixture production vessel at any stage of production. After **StenMix® SUPA 700** is added to the mixture, highly alkaline environments (pH > 9) should be avoided. **StenMix® SUPA 700** gives admixtures higher water reduction and slightly quicker slump loss, and produces a stiffer concrete.

In case harshness and slump loss are too much, molasses and sodium gluconate can be used to reduce the effects. Depending on the design goals, 5%-20% of the solid content of the superplasticizer should be replaced by **StenMix® SUPA 700**. The recommended dosage for **StenMix® SUPA 700** is highly variable depending on the admixture design and expected performance of admixtures.

Exact dosage must be determined by laboratory trials.

4. Safety

Applicators and supervisors must read the Material Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be handled in compliance with relevant regulations and laws. The application must be carried out by skilled workers under supervision of experts and the applicators must use all kinds of protective equipment required for the worksite and the task such as goggles, mask and gloves.

High Range Water Reducing Superplasticizer

Highlights

- Can be used with high early strength precast and prestressed concrete
- Unlike lignosulfonates and naphthalene, it is a fully synthetic polymer. Availability and price are not based on unrelated industries.
- Can be used in high or variable clay content concrete
- VAM-Maleimide-based superplasticizer raw material
- Can be used to economize on raw materials
- Increases performance of superplasticizers



5. Storage

The material must be kept in dry indoor storage. Recommended storage temperature is 5-35 °C. Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date.

Protect the product from freezing. Low temperatures may cause crystallization of the product; in this case, the product can be used after heating and homogenizing at +20 °C. The product must be stirred thoroughly before use after prolonged storage.

6. Disclaimer

This document is provided for general information and reflects **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information at any time without notice.

Stenkim® warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended application and for all conditions of transport, storage, handling, and use. **Stenkim®** accepts no liability for results obtained under conditions outside its control. **Stenkim®**'s liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

7. Technical Data

Property	Method	Result
Appearance - Color		Dark Transparent Liquid
Chemical Composition		Aqueous solution of sodium salt of poly maleimide-co-vinyl acetate
Density	EN ISO 2811-2	1.17 g/cm ³ ± 0.02 g/cm ³
pH	ISO 4316	5-7
Solid Content (by weight)	EN ISO 3251	32% ± 1%
Viscosity	EN ISO 3219	90 cP
Chloride Content		< 0.1%
Freezing Point	ISO 3016	- 5 °C
Shelf Life		1 year
Packaging		1,150 kg IBCs or in bulk

Stenkim® reserves the right to make changes to the values in this table at any time.

