



CONCRETE

Sika ViscoFlow[®]

WORKABILITY ENHANCING ADMIXTURE

BUILDING TRUST



Sika ViscoFlow®

LET YOUR CONCRETE FLOW FOR HOURS



TECHNOLOGY

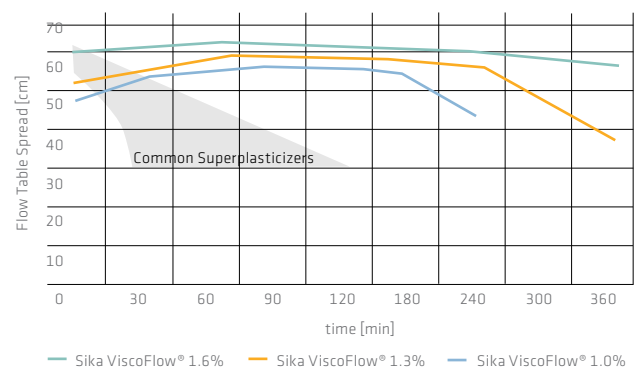
Sika ViscoFlow® are specially designed polycarboxylate ether-based superplasticizers to achieve a significantly enhanced slump retention without additional retardation and subsequent fast strength development.

The polymers consist of backbones with carboxyl groups and side chains. The first component – backbone with carboxyl groups – is responsible for the attainable water reduction, initial slump and mixing time respectively. The second one – side chains – determines the slump keeping capability of the superplasticizer, affected by an increasing number of side chains.

With Sika ViscoFlow® the concrete producer can adapt his mixed concrete to various situations e.g. environmental conditions, changing distances to the jobsite and still maintain the required consistency.

The initial setting of the concrete is only extended by the additional workability time gained by the usage of Sika ViscoFlow®.

The diagram shows the consistency of a concrete with different dosages of Sika ViscoFlow® compared to common plasticizer / superplasticizer.



REQUIREMENTS

Extended workability, controlled over several hours without additional retardation is especially important for urban construction sites with congested traffic, or in remote areas resulting in long transportation times. Sika ViscoFlow® technology also meets the challenge of ensuring target consistency in a concrete mix even in high- or low-temperature climates.

APPLICATION

In order to be as flexible as possible the construction industry and their various challenging projects are demanding more and more workability time of the fresh concrete. The setting time of the concrete on the other hand shouldn't be influenced in a negative way. The solution for this demand is our product Sika ViscoFlow®.

Sika ViscoFlow® is based on a range of special designed polymers which allow modifying the workability time of the concrete:

- The workability time of high performance concrete with a low w/c ratio and therefore high durability properties can be set with the usage of Sika ViscoFlow®. Even under different environmental circumstances e.g. cold or hot temperatures, with Sika ViscoFlow® the required workability time can be achieved for your high performance concrete without any additional retardation effect.
- In any concrete Sika ViscoFlow® can be used as a high performance retarder as well as a target consistency can be ensured with Sika ViscoFlow®. This stabilizing effect can be achieved without any strong retardation of the initial setting.



WORKABILITY ENHANCING ADMIXTURE

The key element of Sika ViscoFlow® are different designed polymers (PCE) developed by Sika R&D center. Sika ViscoFlow® will significantly enhance your workability time and will give you the time needed to transport and place the concrete properly.

Define your workability time based on your requirements.

BENEFITS WITH Sika ViscoFlow®

- Slump retention and ultra slump retention without additional retardation and subsequent fast strength development.
- Constant slump flow and consistency of your concrete over hours.
- Suitable for a wide range of applications with high or low water/cement ratio and/or high or low ambient temperatures.
- Sika ViscoFlow® is recommended for the use with regular cements, for special projects e.g. tunneling and precast, and especially with low-alkali cements.



WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.

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