

PRODUCT DATA SHEET

SikaPlast®-456

PCE BASED SUPERPLASTICIZING AND SET RETARDING CONCRETE ADMIXTURE.

DESCRIPTION

SikaPlast®-456 is a 3rd generation polymer based high performance superplasticizer for producing soft consistency concrete.

SikaPlast®-456 meets the requirements of ASTM C494 Type D & G.

USES

SikaPlast®-456 is mainly suitable for the manufacture of concrete for RMC plants and site batch concrete.

SikaPlast®-456 is used for the following types of concrete:

- Bored piles.
- Barrette foundations and diaphragm walls.
- Foundation.
- Ground and suspended slabs.
- Columns and walls.

CHARACTERISTICS / ADVANTAGES

SikaPlast®-456 combines different modes of actions.

By adsorption on the surface of the fines and keeping them apart while the hydration is in progress, SikaPlast®-456 effects the following concrete properties:

- Improve mortar phase when using coarse sand.
- Long slump keeping and high water reduction.
- High flowability (considerably reduced placing and compacting work).
- Faster evolution of early strength development.
- Workability can be maintained up to 3 hours (still depends on admixture dosage, cement type, temperature).
- Improved creep and shrinkage resistance characteristics.
- When used at higher dosages, SikaPlast®-456 can give extended working time.

PRODUCT INFORMATION

Chemical base	Modified Polycarboxylate in water.
Packaging	200/1000 Liters.
Appearance / Colour	Liquid/ Brown.
Shelf life	12 months if stored properly in original unopened packaging.
Storage conditions	Stored in dry conditions, protected from direct sunlight and at temperatures between +10 °C and +40 °C.
Density	1.060 – 1.100 kg/L (20°C).

TECHNICAL INFORMATION

Concreting Guidance	Concrete placing: With the use of SikaPlast®-456, concrete of highest quality is being produced, however state of the art concrete technology, such as mixing, placing vibrating and curing must be respected and applied. Curing: Effective measures for concrete curing must be followed.
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APPLICATION INFORMATION

Recommended Dosage	0.5 - 2 ltr per 100 kgs of cement/binder. Typical 0.7 to 1.2 ltr/100 kgs of cement/binder.
Compatibility	SikaPlast®-456 may be combined with all Sikament®, Sika® Aer, Sika®Pump, Sikacrete® PP1 products, but must be added separately to the mix and not pre-mixed prior its addition. SikaPlast®-456 is compatible with all Portland Cement types.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATION

Overdosing will result in increased workability and setting time of the Concrete, however, provided that curing is effective, ultimate concrete strength and properties will not be affected.

Accurate dispensing equipment can be supplied by Sika Limited (Vietnam).

Use an appropriate concrete mixer and do not mix by hand.

Trial mixes are recommended to establish exact dosage rates required to suit individual requirements. Please contact Sika Technical Department for further assistance.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

DISPENSING

SikaPlast®-456 is added to the gauging water prior to its addition to the dry mix or added separately to the wetted concrete mix.

For optimum utilization of the ultra-high range water reducer we recommend a minimum wet mixing time of 60 seconds.

When adding the balance of the batching water to adjust concrete consistency this should be done after a minimum of 2/3 of the wet mixing time to avoid surplus water in the concrete.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty

in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users can always refer to the most recent version of the local Product Data Sheet for the relevant product, available on our website. The information in any downloaded version is valid as of the time of download.

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