

PRODUCT DATA SHEET

SikaPlast®-163

PCE Based Superplasticizing and Set Retarding Concrete Admixture

DESCRIPTION

SikaPlast®-163 is a 3rd generation polymer based high performance superplasticizer for producing soft consistency concrete.

SikaPlast®-163 meets the requirements of ASTM C 494 type D & G.

SikaPlast®-163 conforms to Type G when used at 0.8–1.0% dosage, depending on cement type used.

USES

SikaPlast®-163 is mainly suitable for the manufacture of concrete for RMC plants and site batch concrete.

SikaPlast®-163 is used for the following types of concrete:

- High strength bored piles;
- Bridges and cantilever;
- Ground and suspended slabs;
- Columns and walls.

CHARACTERISTICS / ADVANTAGES

SikaPlast®-163 combines different modes of actions. By adsorption on the surface of the fines and keeping them apart while the hydration is in progress, SikaPlast®-163 effects the following concrete properties:

- 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 3–6 hours (still depends on admixture dosage, cement type, temperature);
- Improved creep and shrinkage resistance characteristics;
- When used at higher dosages, SikaPlast®-163 can give extended working time.

SikaPlast®-163 contains neither chlorides nor other corrosion inducing substances and can therefore be used without any restrictions for reinforced concrete structures.

PRODUCT INFORMATION

Composition	Modified poly carboxylate in water
Packaging	200 / 1000 L
Appearance / Colour	Liquid / brownish colour
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 +5 °C and +30 °C.
Density	1.115–1.135 kg/l (At 20 °C)
pH-Value	4.50–6.50 (At 25 °C)

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TECHNICAL INFORMATION

Concreting guidance	With the use of SikaPlast®-163, 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.
Specific advice	Addition/Mixing: SikaPlast®-163 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. Curing: Effective measures for concrete curing must be followed.

APPLICATION INFORMATION

Recommended dosage	0.5–2 L per 100 kg of cement Typical 0.8 to 1.2 L / 100 kg
Compatibility	SikaPlast®-163 may be combined with all Sikament, Sika® Aer, Sika® Pump, Sikacrete® PP-1 products, but must be added separately to the mix and not pre-mixed prior its addition. SikaPlast®-163 is compatible with all Portland cement types.

BASIS OF PRODUCT DATA

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

ECOLOGY, HEALTH AND SAFETY

Protective measures: Avoid prolonged contact with skin. Wash off thoroughly with soap water. In case of contact with eyes or mouth, rinse immediately with clean warm water and seek medical attention without delay.

Avoid contact with food stuff and utensils.

Ecology/ Waste disposal: Do not dispose of into water or soil, but according to local regulations.

Transportation class: Non-hazardous.

Toxicity: Non-toxic

LIMITATIONS

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.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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 must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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