

## PRODUCT DATA SHEET

# SikaPlast®-166

### PCE BASED SUPERPLASTICIZING AND SET RETARDING CONCRETE ADMIXTURE

#### DESCRIPTION

SikaPlast®-166 is a 3<sup>rd</sup> generation polymer based high performance superplasticizer for producing soft consistency concrete.

SikaPlast®-166 meets the requirements of ASTM C 494 Type D & G.

SikaPlast®-166 conforms to type G when used at 0.8–1.0% dosage, depending on cement type used.

#### USES

SikaPlast®-166 is mainly suitable for the manufacture of concrete for RMC plants and site batch concrete.

SikaPlast®-166 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®-166 combines different modes of actions. By adsorption on the surface of the fines and keeping them apart while the hydration is in progress, SikaPlast®-166 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®-166 can give extended working time.

SikaPlast®-166 contains neither chlorides nor other corrosion inducing substances and can therefore be used without any restrictions for reinforced concrete structures

#### PRODUCT INFORMATION

Chemical base	Modified poly carboxylate in water
Packaging	200/1000 L
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.
Appearance / Colour	Liquid / brownish
Density	1.115–1.135 kg/l (At 20 °C)

#### TECHNICAL INFORMATION

##### Concreting Guidance

**Concrete placing:** With the use of SikaPlast®-166, 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.

#### Specific Advice

SikaPlast®-166 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.

## APPLICATION INFORMATION

#### Recommended Dosage

0.5–2 L per 100 kg of cement  
Typical 0.8–1.2 L per 100 kg

#### Compatibility

SikaPlast®-166 may be combined with all Sikament, Sika® Aer, Sika® Pump, Sikacrete® PP-1 products, but must be added separately to the mix and not premixed prior its addition.  
SikaPlast®-166 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.

## 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 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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#### Product Data Sheet

SikaPlast®-166

March 2022, Version 01.02

021301011000002959

SikaPlast-166-en-VN-(03-2022)-1-2.pdf