

PRODUCT DATA SHEET

Sika® Plastocrete®-55 LK

Set retarding admixture with water reducing/plasticising capability

DESCRIPTION

A cost effective and versatile water-reducing and set-retarding concrete admixtures with a wide dosage range for varied applications. It produces high quality concrete with extended set retardation to allow sufficient time for delivery and placement.

USES

Sika® Plastocrete®-55 LK is designed for use where the delivery and placing conditions for high quality concrete are most demanding, such as:

- Ready-mix concrete (RM/C)

- Pumped concrete
- Precast and prestressed concrete
- Long hauls/ high temperature RMC supplies
- Large volume / continuous concrete pour

FEATURES

Sika® Plastocrete®-55 LK is a ready-to-use liquid concrete admixture which provides the following properties:

- Improved workability of fresh concrete
- Controlled extension of setting times
- Long slump retention (extended slump life)
- Accelerated strength development after setting
- Reduced shrinkage and creep
- Chloride free – does not attack reinforcement steels

PRODUCT INFORMATION

Packaging	20KG and 280KG/Drum
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 +40 °C
Appearance and colour	Transparent/ Light yellow liquid
Density	1.15 kg/l (at 25°C) EN 934-2:2001 (E) D ± 0,03 if D > 1,10 D ± 0,02 if D ≤ 1,10 where D is manufacturer's stated value Test method - ISO 758
pH-Value	7.00 (at 25 °C) EN 934-2:2001 (E) Manufacturer's stated value ±1 or within manufacturer's stated range Test method - ISO 4316

TECHNICAL INFORMATION

Concreting guidance

Sika® Plastocrete®-55 LK is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of Sika® Plastocrete®-55 LK to dry aggregate or cement is not recommended.

SYSTEM INFORMATION

Compatibility

Sika® Plastocrete®-55 LK admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of Sika® Plastocrete®-55 LK admixture. In all concrete application, Sika® Plastocrete®-55 LK admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices. Rate of hardening The temperature of the concrete mix and the ambient temperature (forms, earth, reinforcement, air, etc.) affect the hardening rate of concrete. At higher temperatures, concrete hardens more rapidly which may cause problems with placing and finishing. One of the functions of Sika® Plastocrete®-55 LK admixture is to retard the set of concrete. Within the normal dosage range, it will generally extend the working and setting times of concrete containing normal portland cement approximately 1 hour to 6 hours compared to a plain concrete mix, depending on materials at site and temperatures. Trial mixes should be made with site materials & approximating the job site conditions to determine the dosage required.

APPLICATION INFORMATION

Recommended dosage

0.1% - 0.5% by weight of cement. Exact dosage rate properties variation of the constituent materials and the temperature, hence it is advisable to carry out trial mixes. Sika® Plastocrete®-55 LK is compatible with all types of Portland cement including S.R.C.

Field trials should be conducted to determine the optimum addition rates of Sika® Plastocrete®-55 LK. As a guide to these trials, a dosage range of 100ml to 500ml per 100kg of cementitious material is recommended as a starting point. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases. For addition information on Sika® Plastocrete®-55 LK admixture or on its use in developing concrete mixes with special performance characteristics. Effects of over dosage A severe over-dosage of Sika® Plastocrete®-55 LK can result in the followings:

- Long extension of initial and final set
- Bleed/segregation of mix

A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on form work, and stripping times should be monitored. In the event of over dosage, consult your local Master Builders Solutions representative immediately

Compatibility

Sika® Plastocrete®-55 LK is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended setcontrol admixtures, corrosion inhibitors, and shrinkage reducers. Sika® Plastocrete®-55 LK is also compatible with slag and pozzolans such as fly ash and silica fume.

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: Non-hazardous Toxicity: Non-toxic

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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PRODUCT DATA SHEET

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