



Sika® Control 40

An admixture for minimising drying shrinkage

Technical Data Sheet

DESCRIPTION

Sika Control 40 is a shrinkage-reducing admixture for minimising drying shrinkage. It is normally used in conjunction with a superplasticising admixture. **Sika Control 40** increases the cohesion in the pore structure and reduces the contraction (length change) as the concrete continues to dry out.

USES

Sika Control 40 has been especially formulated for use in high performance concrete with strongly reduced drying shrinkage and enhanced durability. **Sika Control 40** is used when the limitation of crack width is important.

ADVANTAGES

- * **Sika Control 40** does not change any of the other properties of the fresh and hardened concrete other than a very slight extension of workability retention.
- * Reductions in drying shrinkage up to 40% are possible.
- * Compatible with other **Sika** admixtures.
- * Free of Chlorides or other substances that promote corrosion.

Technical Data (typical)

Form:	Liquid
Colour:	Red
Density:	1.01
pH:	10.5
Dosage range:	0.5 - 1.5%

All above values are approximate.



METHOD OF USE

The admixture should be added to the concrete during the water addition phase of the mixing process. On no account should it be added to the dry cement. Generally, the admixture will have no effect on the amount of water addition, nor will it affect the workability of the concrete produced.

PACKAGING

Sika Control 40 is available in 200 litre drums and bulk deliveries in increments of 1,000 litres.

STORAGE AND SHELF LIFE

The storage life of **Sika Control 40** is a minimum of 12 months in sealed containers. Precautions should be taken to avoid storage in temperatures below freezing point.

The table below details testing on a high flow self-smoothing screed in order to give a comparable shrinkage to a normal workability screed.

Materials	Mix 1	Mix 2	Mix 3	Mix 4	Mix 5
Sand	7.47	7.47	7.47	7.47	7.47
Cement	2.25	2.25	2.25	2.25	2.25
Water	0.40	0.38	0.38	0.38	0.37
Super	0	0.04	0.04	0.04	0.04
Control 40	0	0	0.02	0.03	0.04
Flow (mm)	Dry	110	120	115	190
Plastic Density (Kg/m ³)	2245	2270	2270	2260	2270
U-Channel Shrinkage 7 day mm/m	0.35	0.50	0.10	0.25	0.20
Prism Shrinkage % 28 days	0.060	0.059	0.047	0.045	0.045

The normal dosage to achieve the benefits shown above is 0.5% on cement content. However, there is no detriment to using up to 1.5% on cement if desirable and required.

Handling Precautions

Sika products are generally harmless provided that certain precautions normally taken when handling chemicals are observed. The materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The use of protective clothing, goggles, barrier creams and rubber gloves is required. The skin should be thoroughly cleaned at the end of each working period either by washing with soap and warm water or by using a resin-removing cream - the use of powerful solvents is to be avoided. Disposable paper towels - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. In case of accidental eye or mouth contact, flush with water - consult a doctor immediately. Health and Safety information on Sika Products is available and we strongly advise that this is read prior to their use. Sika products are for professional use and should be stored in sealed containers away from the reach of children.

Important Note

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 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

Please consult our Technical Sales Department for further information

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