

PRODUCT DATA SHEET

SikaControl®-777

(formerly MasterPel® 777)

Robust 2-in-1 High Performance, Water-reducing and Waterproofing Concrete / Mortar Admixture

DESCRIPTION

SikaControl®-777 is an innovative liquid admixture designed specifically to allow superior workability in concrete / mortar mixes with reduced water and also achieve high resistance to water ingress. It is based on a specially formulated polymers and compatible with all types of cement and binders (like fly ash, ground granulated slag, silica fume, metakaolin, etc).

USES

SikaControl®-777 can be used in all types of concrete and mortar that is used in all types of residential, commercial and infrastructural construction. Additionally, it can be used in concrete applications constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and pre-cast concrete in exposed super-structures.

SikaControl®-777 is used as a dual action admixture combining both the waterproofing cum plasticizing effect for cement concrete, mortars and plasters.

CHARACTERISTICS / ADVANTAGES

- Liquid – Easy to use.
- Low dosage – Economical.
- Water-reducing admixture - Improves workability, cohesion, pumpability and reduces segregation.
- Improved surface finish.
- Improved compressive strengths
- Waterproofing admixture - Provides resistance to water penetration either under hydrostatic pressure or capillary absorption.
- Increased durability.

APPROVALS / STANDARDS

- IS:2645-2003
- IS:9103-1999
- ASTM C494: Types A & D

PRODUCT INFORMATION

Packaging	SikaControl®-777 is available in 5 litre & 220 kg.
Shelf Life	12 months from date of production if stored in unopened, undamaged and original sealed packaging.
Storage Conditions	SikaControl®-777 must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
Appearance / Colour	Dark brown liquid

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Specific gravity 1.065 ± 0.02 at 25°C

pH-Value >6

Total Chloride Ion Content <0.2%

APPLICATION INFORMATION

Recommended Dosage

As a guide, a dosage range of 100 ml to 200 ml per 50kg bag of cementitious material is recommended.

Optimum dosage of SikaControl®-777 should be determined with trial mixes. Higher dosages may be required when certain combinations of materials and conditions are present or water reduction in excess of 15% is required. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required.

Points to remember when producing waterproof concrete

- Ensure water / cement ratio is within the range of 0.40 to 0.60.
- Keep water content as low as possible.
- Place concrete quickly and compact it well.
- Ensure complete curing with a Sika® Antisol® curing compound.

Effects of Over Dosage

A severe over-dosage of SikaControl®-777 shall result in some of the followings:

- Extension of initial and final set
- Increase in air entrainment
- Bleed/segregation of mix, quick loss of workability
- Increased plastic shrinkage

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.

Compatibility

SikaControl®-777 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. SikaControl®-777 is also compatible with slag and pozzolans such as fly ash and silica fume.

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.

FURTHER DOCUMENTS

CORROSIVITY – NON CHLORIDE, NON CORROSIVE

SikaControl®-777 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 SikaControl®-777 admixture. In all concrete application, SikaControl®-777 admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

WORKABILITY

SikaControl®-777 ensures that concrete remains workable in excess of 60 minutes at +25°C. Workability loss

is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION

SikaControl®-777 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 SikaControl®-777 to dry aggregate or

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cement is not recommended.

LOCAL RESTRICTIONS

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

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

Sika Pakistan (Pvt.) Limited

141-CCA Phase IV, DHA
Lahore Punjab 54792
Pakistan
phone: +92 42 3569 4266 - 67
fax: +92 42 3569 4268
<http://pak.sika.com/>

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