

# PRODUCT DATA SHEET

# SikaPaver®-707

(formerly MasterPel® 707)

Low dosage, liquid, integral waterproofer for concrete and mortar

#### **DESCRIPTION**

SikaPaver®-707 is a liquid admixture for concrete to achieve high resistance to water ingress. It is based on a blend of surface-active agents and refined lignosulphonate.

#### **USES**

SikaPaver®-707 should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and pre-cast concrete in exposed super-structures. SikaPaver®-707 can also be used as water-proofing cum plasticizing admixture for cement mortars and plasters

# **CHARACTERISTICS / ADVANTAGES**

- Increased durability.
- Reduced sulphate attack.
- Reduced efflorescence.
- Improved cohesion, reduce segregation.
- Pumpabilty of concrete is greatly improved.
- Improved surface finish.
- Reduced shrinkage cracks in plasters
- Do not reduce compressive strengths
- Liquid easy to use.
- Low dosage Economical.

# **APPROVALS / STANDARDS**

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

# PRODUCT INFORMATION

| Packaging                  | SikaPaver®-707 is available in 1litre, 5litre, & 220 kg drums.   |
|----------------------------|--|
| Shelf Life                 | 12 months from date of production if stored in unopened, undamaged and original sealed packaging.  |
| Storage Conditions         | SikaPaver®-707 must be stored where temperatures do not drop below +5°C. If the 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. |
| Appearance / Colour        | Dark brown liquid  |
| Specific gravity           | 1.17 ± 0.02 at 25°C  |
| pH-Value                   | >6   |
| Total Chloride Ion Content | <0.2%  |
|                            |  |

# APPLICATION INFORMATION

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#### **Recommended Dosage**

As a guide, a dosage range of 200 ml to 400 ml per 100kg of cementitious material is recommended.

Optimum dosage of SikaPaver®-707 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 MASTERKURE curing compound.

#### **Effects of Over Dosage**

A severe over-dosage of MasterPel 707 shall result in some of the followings:

- Extension of the 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

SikaPaver®-707 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. SikaPaver®-707 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

SikaPaver®-707 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 SikaPaver®-707 admixture. In all concrete application, SikaPaver®-707 admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

#### WORKABILITY

SikaPaver®-707 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.

The use of MasterKure 111CF, evaporation reducer to prevent quick moisture loss from the surface of the flat works such as pavements in the dry, windy and

hot climates is highly recommended.

#### **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**

SikaPaver®-707 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 SikaPaver®-707 to dry aggregate or cement is not recommended.

## **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

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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.

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SikaPaver-707-en-PK-(05-2024)-1-1.pdf



