

# PRODUCT DATA SHEET

# Sika® Sigunit® Powder K

#### HIGH PERFORMANCE POWDER ACCELERATOR FOR DRY MIX SHOTCRETE

#### **DESCRIPTION**

A ready to use alkali free accelerator in powder form for use with dry gunite mixes. It allows spraying to take place even on wet surfaces subject to slight infiltration.

#### **USES**

Sika® Sigunit® Powder K is suitable for dry shortcrete / gunite mixes of both concrete and mortar such as those required for :

- Tunnels and galleries
- Securing rock-faces
- Embankment and excavations
- Thin section concrete shells
- Swimming pools
- Concrete repair-work
- Strengthening concrete structures

### **CHARACTERISTICS / ADVANTAGES**

Sika® Sigunit® Powder K reacts in the mix to assist the hydration process, resulting in greatly accelerated strength development within the first 24 hours. Other benefits include:

- Speeds up the job
- Improved water tightness
- Reduced rebound
- Better adhesion to areas of slight seepage
- Chloride free and does not corrode the reinforcement
- Improves overhead spraying
- Compatible with many types of cement including low alkali cement
- Good early strength

## **APPROVALS / CERTIFICATES**

ASTM C 1141 Type1 Grade 9 Class B

#### **PRODUCT INFORMATION**

Composition	Mixture of special Inorganic substances
Packaging	12.5 kg
Appearance / Colour	White fine powder
Shelf life	6 months from date of production if stored in original unopened, undamaged sealed pack.
Storage conditions	Store in dry clean condition at temperatures between +5°C and +40°C. Protected from direct sunlight and frost.
Bulk Density	0.42 kg/l at 25°C
Total Chloride Ion Content	No added chlorides
SYSTEMS	
Compatibility	Sika® Sigunit® Powder K is compatible with all types of cement and cementitious materials.  It is also compatible with many Sika® Products.

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#### APPLICATION INFORMATION

**Recommended Dosage** 

The correct dosage must be determined by preliminary testing. For layer thicknesses of up to 15 cm in one pass, dosage is between 3% and 8% of weight of binder. Actual dosage to be finalised on the basis of concrete trials.

#### APPLICATION INSTRUCTIONS

#### **DISPENSING**

at the nozzle.

The shotcrete to be conveyed is fed dry into the hopper of the machine.

For the Dry spray process the following methods could be used:

Place Sika® Sigunit® Powder K directly into the hopper of the shotcrete machine. At the start of the shotcrete application correct amount of water must be added at the nozzle to achieve the required properties. Sika® Sigunit® Powder K could be added dry by a dosing unit and the correct water to the conveying stream

#### **FURTHER INFORMATION**

- Sika® Sigunit® Powder K's effect depends on cement cntent, age, type and substrate.
- It is also dependent on the temperature of the shotcrete and the application area, and shotcrete method used.
- The performance of Sika® Sigunit® Powder K also depends on, the amount of water added during spraying.

#### **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.

#### **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 the exact product data and uses.

#### **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 Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related 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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