BUILDING TRUST

PRODUCT DATA SHEET

Sika® CemCrete

Multifunctional acrylic based polymer for waterproofing applications

DESCRIPTION

Sika® CemCrete is a multifunctional acrylic polymer emulsion for enhancing the properties of cement slurry or mortar. It provides a good adhesion, water resistance and improvement of several other properties.

USES

Sika® CemCrete is a composite waterproof coating system when used in combination with cement, glass fibre mesh, silica sand, etc.

- Waterproofing of roof slab, sunken slabs, basements, water tanks, sunshades etc.
- Bonding agent for uses in repair and plastering
- Treatment for leaching and saltpetre action
- Multipurpose mortar admixture

CHARACTERISTICS / ADVANTAGES

- Easy to apply by brush, slurry consistency
- Durable and effective waterproofing treatment for most areas
- Good bonding with most of the substrates.
- Improves resistance to salt permeation
- Improves impermeability
- Non-corrosive to steel & iron
- Vapour permeable
- Can be used as a bonding agent for mortar and plasters during repairs in combination with cement

PRODUCT INFORMATION

Chemical base	Acrylic polymer and special additives
Packaging	1 kg, 5 kg, 20 kg, 50 kg, 200 kg container
Shelf life	12 months from date of production
Storage conditions	The product must be stored properly in undamaged and unopened original sealed packaging, in dry conditions at temperatures between +5 °C and +35 °C. Protect from frost and direct sunlight.
Appearance / Colour	Liquid / Milky white
Density	~1.04 kg/L at +27 °C
pH-value	~8

TECHNICAL INFORMATION

Tensile adhesion strength	~0.5 N/mm² (as waterproof slurry)

APPLICATION INFORMATION

Consumption

Application area	Mixing ratio	Consumption of mixture	Consumption of Sika® CemCrete
Waterproof coating	Sika® CemCrete : Cement =1 : 2	~500 g/m² per coat	~200 g/m² per coat
Waterproof brush topping	Sika® CemCrete : Cement : Fine Silica Sand=1 : 2 : 2	~2 kg/m² per mm thickness	~450 g/m² per mm thickness

NOTE:
The above stated consumption depends on substrate conditions, porosity level, application skills,etc. The ratios and consumptions mentioned above if for guideline only and may have to be slightly altered at site based on the type of cement used (OPC/PPC/Other blended cements) .It is advised to conduct a site trial to arrive at the correct consistency required for the particular type of application mentioned above .Small quantity of water may be added in case mix is not workable at very high temperatures.

Ambient air temperature	+10 °C min. / +40 °C max.
Substrate temperature	+10 °C min. / +40 °C max.

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate must be sound and with a minimum pull off strength of 1.5 N/mm².
- The substrate must be free of all traces of contaminants, loose and friable particles, cement laitance, oils and grease, wax, curing compounds, water repellent coatings etc.
- The substrate must be prepared by suitable mechanical preparation techniques such as high pressure water jetting, needle guns, grinding, blast cleaning etc.
- High spots must be removed by grinding.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
- Any wax based curing compounds or water repellent coatings must be fully removed by scraping or grinding.
- All intersections of horizontal and vertical surfaces should be profiled with a mortar fillet of minimum 25 mm × 25 mm.

MIXING

1. Pour required quantity of product into a suitable mixing container.
2. While stirring slowly, add the cement or cement-sand mix to the product and mix thoroughly until a smooth, uniform and lump-free mix is achieved.
3. Within the mixing time add additional product to adjust to the desired consistency. Mix with a mechanical paddle mixer at 300-500 rpm for not more than 2-3 minutes.

APPLICATION METHOD / TOOLS

Waterproofing coating

1. Thoroughly pre-wet the prepared substrate (2 hours recommended) before application. Keep the surface wet and do not allow to dry. Before application remove excess water, e.g. with a clean sponge. The surface must appear to be of homogeneous color with matt finish appearance without shining and surface pores and cavities must not contain water.
2. Prepare the waterproofing coating as indicated in the consumption table. Apply the first coat of Sika® CemCrete coating with a hard bristled brush applied in the same direction and leave to harden for 4 to 6 hours depending on temperature,humidity and ventilation
3. (Optional) Wherever coating is to be reinforced with glass fabric, lay Sika® Fabric-50 into the freshly applied base coat and embed firmly into the wet coat with brush.
4. Apply the second coat of Sika® CemCrete coating in crosswise direction to the first application as soon as first coat has hardened. NOTE: If the second coat is applied 12 hours or later to first coat, the first coat shall be slightly pre-wetted by using a fine spray.
5. Protect with screed on top for longer life.

IMPORTANT
Slight fabric marks may be visible after application of the second coat, but it will have no adverse bearing on the performance of the waterproofing system. Apply third coat wherever necessary.

Protection

1. The top layer while wet, sprinkle clean quartz sand.
2. Once top layer has sufficiently cured, apply protection plaster, mortar, screed or any other adhesive layer. A bonding agent may be necessary.
3. Alternatively, a separation layer like PE sheet or geotextile can be used before any screed or interlocking paver blocks.

Waterproof brush topping

1. Thoroughly pre-wet the prepared substrate (2 hours recommended) before application. Keep the surface wet and do not allow to dry. Before application remove excess water, e.g. with a clean sponge. The surface must appear a dark matt appearance without shining and surface pores and cavities must not contain water.
2. Prepare the waterproof brush topping as indicated in the consumption table. Apply the Sika® CemCrete brush topping with a hard bristled brush.
3. Protect with screed on top for longer life.

CURING TREATMENT

- Avoid rapid evaporation of the water from mortars prepared with Sika® CemCrete. Cover the surface with a polyethylene film, use wet burlap, gunny bag or hessian cloth or water misting or apply Sika Antisol® curing compound.
- Cure for minimum 3–5 days. DO NOT pond with water before 5 days of curing.
- During adverse weather conditions (high temperatures, low relative humidity, wind, sun etc.) take particular care with curing treatment.

CLEANING OF TOOLS

Clean all tools and application equipment with clean water immediately after use. Hardened or cured material can only be removed mechanically

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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