DSF 310 CRYSTALLINE SLURRY

BRUSHABLE CEMENTITIOUS WATERPROOFING SLURRY, CRYSTALLINE ACTION

CATEGORY R2 ACCORDING TO EN 1504-3

DESCRIPTION

DSF 310 CRYSTALLINE SLURRY is a cementitious, ready-mixed, in-depth crystalline waterproofing. Applied to pressure or non-pressure concrete face. Approved for drinking water structures. Protects building structures against soil moisture, surface or rising moisture and water under pressure.

AREAS OF APPLICATION

It is suitable for waterproofing of:

- Concrete surfaces
- Overhead construction walls
- Basements walls and Foundations
- Basements, internal or external, against humidity or water under pressure
- Slabs, retaining walls, construction joints, sewage treatment plants, swimming pools, backfilled, structural elements, etc.
- Balconies and terraces
- Inverted roofs
- Drinking water structures
- Wet areas (baths, kitchens)
- Floors, concrete pots,
- Shafts, tunnels, etc.

PROPERTIES

It consists of grey Portland cement, specially treated quartz sand and a compound of active chemicals. When **DSF 310 CRYSTALLINE SLURRY** is applied to a concrete surface the active chemicals combine with the free lime and moisture present in the capillary tract, to form insoluble crystalline complexes. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress (even under pressure).

However, the **DSF 310 CRYSTALLINE SLURRY** layer will still allow the passage of water vapour through the structure (i.e. the concrete will still be able to "breathe"). In addition to waterproofing the structure, **DSF 310 CRYSTALLINE SLURRY** protects concrete against sea water, waste water, aggressive ground water and certain chemical solutions. **DSF 310 CRYSTALLINE SLURRY** is tested for use in contact with drinking water.

SURFACE PREPARATION

The substrate to be treated must be sound and even, openpored, roughened and its surface free from voids, large cracks or ridges. Any adhesion reducing substances like bitumen, oil, grease, remains of paint or laitance have to be removed by suitable means. Water leaks must be stopped e.g. with WRM 500. Thoroughly moisten the substrate, it must be damp but not wet at the time of application. Any surface water on horizontal surfaces must be removed.

MIXING

Mix by volume 5 parts of **DSF 310 CRYSTALLINE SLURRY** with approx. 2 parts of tap water (25 kg + approx. 7–8.5 litres) in a clean container for at least 3 minutes to a lump-free, homogeneous consistency of thick oil paint. Use a mechanical mixer.

PACKAGING – STORAGE

25 kg PE-lined paper bag. When stored in a dry place in unopened, undamaged original packaging, shelf life is 12 months.

CONSUMPTION

0,8-1,5 kg/m^2 depending on the type of application and surface type.

APPLICATION

DSF 310 CRYSTALLINE SLURRY is applied with brush, suitable spray equipment or by dry sprinkling. Brush application: Ensure that all cavities in the substrate are filled. Crosswise application: vertically bottom-up, then horizontally. Spray application: **DSF 310 CRYSTALLINE SLURRY** can be applied with a suitable fine mortar spraying device. For maximum spray pattern it should be possible to adjust volume of product as well as air pressure and volume. The nozzle diameter is approx. 4 mm. The first layer of **DSF 310 CRYSTALLINE SLURRY** is applied in circular motion with the spray nozzle held at a 90% angle to the substrate. The final layer can be left as a spray finish or treated to a specified finish. Apply subsequent coat whilst previous coat is still damp at the surface. The waiting time before applying the following coat depends on local climate conditions such as humidity, temperature, etc. The previous coat must not be damaged during application of the following coat. To maintain workability of the material do not add water, simply re-stir the mixture. Dry sprinkle and power trowel application: The concrete is poured, vibrated and screeded as usual. When the concrete to be treated starts to reach initial set, the specified amount of **DSF 310 CRYSTALLINE SLURRY** is dry-distributed by hand using a sieve (mesh size of 1 mm) or suitable spreader on to the concrete surface. The powder is then trowelled into the substrate until coverage is uniform and the specific finish is achieved. Do not apply at temperatures below +5 °C or to a frozen substrate.

PLASTERING / COATING

Surfaces treated with **DSF 310 CRYSTALLINE SLURRY** which are to be coated or painted should be left to cure for at least 28 days. At the end of the curing period, prior to the application of coatings or paints, the surfaces should be saturated with water and neutralised with diluted hydrochloric acid (1:8 / approx.3.5%). Observe precautionary measures! Following this, the area must be thoroughly rinsed with water. When a plaster or render finish is required on top of **DSF 310 CRYSTALLINE SLURRY** it is essential to apply a rough cast of sand and cement on the final **DSF 310 CRYSTALLINE SLURRY** coat while it is still tacky. On hardened **DSF 310 CRYSTALLINE SLURRY** surfaces apply an appropriate bonding agent before rendering (GLX 298). Coatings on top of a **DSF 310 CRYSTALLINE SLURRY** treatment have to be alkali resistant. Decorative coatings applied on the passive water pressure side are recommended to be water vapour permeable.

FILLING WITH WATER

Filling can take place when the surface treatment has hardened sufficiently, usually not less than 14 days after application. However, if earlier filling is specifically required, filling may be considered after not less than 7 days, provided the surface is thoroughly checked for hardness. A careful cleaning and disinfection prior to the first operation is essential. Observe national laws and regulations.

CURING – BACKFILLING

Keep damp for at least 5 days and provide suitable protection against extreme weather conditions (e.g. sun, wind, frost) while setting. The freshly treated surface should be protected from rain for a minimum period of 24 h. In closed spaces and deep pits, suitable air circulation should be provided for 24 hours following the **DSF 310 CRYSTALLINE SLURRY** application. Backfilling can be carried out 3 days after completion of the **DSF 310 CRYSTALLINE SLURRY**.

PRECAUTIONS

The product **DSF 310 CRYSTALLINE SLURRY** contains cement and reacts with water for the production of alkaline solution. Therefore, eyes and skin should be protected. In case of contact, wash with plenty of water. In case of eye contact, immediately seek for medical advice. Read the information on the label and the Product Technical Sheet before use. Wear the appropriate protective clothes and gloves. The MSDS of the product is available upon request to professionals.

DSF 310 CRYSTALLINE SLURRY

BRUSHABLE CEMENTITIOUS WATERPROOFING SLURRY, CRYSTALLINE ACTION, 1 COMPONENT

CATEGORY R2 ACCORDING TO EN 1504-3

TYPE ACCORDING TO THE EUROPEAN STANDARD EN 1504 -3

TECHNICAL CHARACTERISTICS	UNITS	STANDARD	VALUE
Appearance			Powder
Color			Grey
Workability	(min)	at 20^{o}C	Approx. 30
Setting time	(h)	at 20^{o}C	1-2
Further data			Refer to CE-marking

(*)All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity, and porosity of substrate may affect these values.

Note: *The measurements were taken in laboratory environment under a temperature of +23^{0}C, Relative Humidity 50 % and without ventilation. They may vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation and absorbability of the substrate.*