

PROTECT UV-TopCoat

Item No 2755

Film-forming, UV- hardening surface layer of PROTECT UV-coating system

FIELDS OF APPLICATION

PROTECT UV-TopCoat is a water-based, 1-component topcoat impregnation for manufactured concrete products like pavers, flags and blocks and gives them a high-quality finishing and durable protection.

PROTECT UV-TopCoat generates a satin shining finishing that deepens the primary concrete colour and gives surfaces a glossy shining appearance.

When applied properly, PROTECT UV-TopCoat coats the concrete surface and generates an excellent water-repellent film which reduces the occurrence of water penetration.

This optimises concrete's frost-thawing salt resistance and minimises visual damages like efflorescence. Contaminations from food and beverages are easier to remove (Easy-to-clean effect).

The impregnation is a very quick-drying product. In the manufactured concrete industry this quality allows packing the concrete products rapidly after application. Applied on concrete surfaces, this feature enables stepping on the surface quickly after treatment.

PROTECT UV-TopCoat shows a high scratch resistance, is resistant against chemical loads, weather resistant, non-yellowing and abrasion resistant. The film-forming impregnation bases on a UV-crosslinking polyurethane dispersion providing high hardness, gloss and transparency.

PROTECT UV-TopCoat is applied on the dry site of the production, NIR-dried and UV-hardened.

APPLICATION QUANTITY

Depending on the surface structure and its absorbing abilities the necessary amount might vary between 50 – 150 g/m² and has to be determined for each single application.

WORKING PRINCIPLE

Being part of the double component system, PROTECT UV-TopCoat and the previously primed concrete surface (PROTECT UV-Primer) are combined to a durable and powerful protection system.

Applying a primer may reduce the risk of polymer degradation due to the high alkalinity. Usually, the primer application has the same effect as using a small quantity of the topcoat.

TECHNICAL DATA

Homogeneity	homogenous
Colour	<i>In liquid, not-cured Condition</i> white <i>After UV-curing</i> colourless
State	liquid
Density	1.04 ± 0.02 g/cm ³
Workability	from +5 °C to +50 °C
Gloss level	semi-glossy (silky) to glossy finish; depending on application quantity
Shelf life	approx. 1 year from date of production if stored properly
Storage conditions	Store in unopened, original sealed packaging between +5 °C and +25 °C. Protect from frost and insolation

PROCESSING INDICATIONS

The surface to be treated must be firm, clean, absorbent and free of dust and loose particles. Curing- and separating agents have to be completely removed. Moist surfaces affect the pre-drying process and might lead to blemishes. The subsoil to be treated should have a residual moisture content of approximately <3%.

PROTECT UV-TopCoat should be evenly applied to the surface with a suitable spraying system. The subsoil's temperature should be between +40 °C + 50 °C. As a uniform layer thickness and the final appearance depend on a careful application, application quantities should be determined in preliminary tests to determine.

In any case, pre-drying must be completed. Any residual water might affect an evenly film-forming and thus leading to significant blemishes and impairing the durability of the coating.

Drying, using an IR-NIR drying machine is recommended. The required drying capacity depends mainly on the objects and ambient temperature as well as on the residual moisture content of the concrete products to be treated. Therefore, we urgently recommend testing different drying capacities while considering these conditions.

Hardening starts after the complete, physical drying. The recommended UV radiation energy for curing PROTECT UV-TopCoat is about 1500 mJ / cm².

Concrete products treated with PROTECT UV-TopCoat are stackable after a complete drying.

In order to improve the air circulation and thus avoiding condensation within the packaging, we recommend using non-sharp PVC granulates. The packages should be stored without any shrink hoods, open and protected from water as long as possible.

The user shall ensure an appropriate entrance and exit quality control. The material should be used

and applied by trained personnel only. Before using PROTECT UV-TopCoat and before launching products treated with PROTECT UV-TopCoat, we refer to the need of carrying out initial tests (e.g., visual inspection, layer thickness measurement, abrasion test and compatibility test) as well as long-term tests (e.g., weathering) for each end product. Furthermore, a functional specifications document should be created.

This product is not classified as hazardous according to the CLP regulations. See safety data sheet for further information.

PACKAGING

- 25 l can
- 180 l barrel
- 900 l container

REMARKS

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indication are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand. Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!