2K PLUS

PRODUCT DESCRIPTION

UNIGUARD 2K PLUS is a two-component, crack-bridging, based on cement modified with special alkali-resistant polymers. The system is designed to withstand high negative and positive water pressure. UNIGUARD 2K PLUS is suitable for application by brush, spatula or roller.

*Applicable Standards: Uniguard 2K Plus is comply with all EN 14891 standard requirements.

USES

- Flexible waterproofing and protection of concrete structures including tanks, basins, pipes etc.
- Inside waterproofing of negative water pressure of walls and floors in basements.
- Waterproofing of bathrooms, showers, terraces, balconies, swimming pools before the application of ceramic tiles bonded with adhesives.
- Waterproofing of external wall surfaces to be backfilled in ground.
- Flexible protection coating for reinforced concrete structures against the effects of freeze-thaw and carbon dioxide attack to improve durability.

CHARACTERISTICS / ADVANTAGES

- Easy to apply by brush, spatula/roller.
- Good sag resistance and easy to apply, even on vertical surfaces.
- Good crack-bridging ability.
- Excellent adhesion on many substrates including concrete, cement mortars, stone, masonry.
- Can be applied on damp substrates.

PRODUCT INFORMATION

Packaging	20.5 KG, 9 KG
Appearance / Color	Off White, Grey
Shelf Life	24 months from date of production
Storage Conditions	Store properly in the original packaging, in cool and dry conditions. Protect from water.

APPLICATION INFORMATION

Spreading Rate per 20.5KG	~ 6 m^2 /20.5 Kg @ 1.5 mm thickness
Layer Thickness per coat	1000 – 1500 microns
Ambient Air Temperature	5 °C min. - 40 °C max.
Substrate Temperature	5 °C min. - 40 °C max.
Over coating Time	120 min @ 25 °C

TECHNICAL INFORMATION

Test Name	Test Method		Requirement
Tensile Adhesion Strength	Initial Tensile adhesion strength	EN 14891 -A.6.2	≥ 0.5N/mm^2
	Tensile adhesion strength after water contact	EN 14891 -A.6.3	≥ 0.5N/mm^2
	Tensile adhesion strength after heat ageing	EN 14891 -A.6.5	≥ 0.5N/mm^2
	Tensile adhesion strength after freeze-thaw cycles	EN 14891 -A.6.6	≥ 0.5N/mm^2
	Tensile adhesion strength after contact with as chlorinated	EN 14891 -A.6.7	≥ 0.5N/mm^2
	Tensile adhesion strength after contact with lime	EN 14891 -A.6.9	≥ 0.5N/mm^2
Crack Bridging Ability		EN 14891:2017	≥ 0.75 mm
Water Vapor Permeability		EN ISO 7783-1	SD < 5m
Hydrostatic Pressure Test (Positive)			Tested up to 7 bar, No Water Penetration Observed
Hydrostatic Pressure Test (Negative)			Tested up to 5 bar, No Water Penetration Observed for 48 hours
Water absorption Coefficient		EN 1062-3	0.02 Kg/m^2.$hr^{0.5}$

APPLICATION INSTRUCTIONS

PRE-TREATMENT

Substrates must be structurally sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, coatings and other surface treatments etc.

Clean surfaces by blast cleaning, high-pressure water jetting (400 bar), wire-brushing, grinding etc., in order to remove all previous coatings, any traces of grease, rust, release agents, cement laitance and any other material which could reduce adhesion. All dust deposits from this preparation must also be removed i.e. by vacuum. Repair concrete substrates, the substrate shall be adequately dampened before application. The surface shall not be moist to the touch and shall not be the dark matte (saturated surface dry) appearance.

MIXING

UNIGUARD 2K PLUS can be mixed with a low speed (~ 500 r/min) hand drill mixer. Once a homogeneous mix is obtained, continue mixing for 2-3 min. The mortar must be homogeneous and lump free. Do not add any additional water or other ingredients.

APPLICATION

Special Requirements: All connections between the substrate and pipe entries, plant and equipment, light switches etc., must be sealed and watertight. Joints in concrete, pipes or anywhere else in the structure must also be sealed and made watertight. Use coved details at the floor/wall junctions.

Apply **UNIGUARD 2K PLUS** by:

1. Spatula or roller: Exerting good and even pressure onto the substrate.
2. Brush: In 2 directions (diagonally opposite).

The optimum waterproofing performance is obtained by applying UNIGUARD 2K PLUS by trowel in at least 3 layers, to a total thickness of at least 3 mm. Application by brush must be undertaken with the maximum attention to uniformly covering the whole surface. The maximum recommended thickness for these methods of application is 1 mm per layer. Wait until the first layer is dry before applying subsequent layers. The application shall cover the whole surface of the substrate in a uniform thickness. UNIGUARD 2K PLUS cannot be smoothed using float or sponge trowel. It is possible to smooth the surface as soon as the curing of the product is complete by light abrasion techniques.

CLEANING OF TOOLS

Tools should be thoroughly cleaned with water before the material has set. Hardened mortar can only be removed mechanically.

LIMITATIONS

1. UNIGUARD 2K PLUS shall not be smoothed using a float or trowel.
2. Protect from rain for at least 24–48 h after application.
3. Avoid application in direct sun light, when rain is imminent or in strong winds.
4. Setting time can be influenced by high relative humidity, particularly in closed rooms or basements. The use of adequate ventilation is recommended.
5. Before contact with drinking water, ensure the UNIGUARD 2K PLUS is completely hardened respecting the suggested waiting times and wash carefully to remove dust, loose material or stagnant water.
6. UNIGUARD 2K PLUS is permeable to water vapor and does not form a vapor barrier for resin based systems not permeable to gas.
7. If a solvent based paint is to be applied on UNIGUARD 2K PLUS, carry out preliminary testing in order to ensure the solvents do not attack and damage the waterproofing layer.

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.