RESIGUM

TWO-COMPONENT WATERPROOF ELASTIC COATING BASED ON POLYMER MODIFIED CEMENT

CE EN 1504-2

Two-component mortar based on cementitious binders, selected fine-grained aggregates, and acrylic polymers in water dispersion. It is used for creating flexible waterproof coatings.
CE-marked product as a system for the protection and repair of concrete structures in compliance with UNI EN 1504-2 “Surface protection systems for concrete”, principles 1 [PI], 2 [MC] and 8 [IR], methods 1.3 [C], 2.2 [C] and 8.2 [C].

Areas of use

- Waterproofing of terraces, swimming pools, bathrooms, roof-gardens, parking spaces;
- Waterproof coating of basins, tanks, tubes and concrete waterways;
- Protection of concrete structures, i.e. curbs, road safety barriers, tunnels and cantilever roofs from salt and pollution;
- Waterproofing of both outdoor and indoor constructions, i.e. sports complex bleachers, industrial premises, box, utility rooms, elevator pits, flat roofs;
- Direct waterproofing on tiled surfaces with no need to remove them.

Features

RESIGUM is supplied in pre-measured packages. By correctly mixing the two components, a fluid cement mortar is obtained. This can also be applied vertically to provide waterproof and elastic coatings, which are 1-2mm thick, for concrete structures.
RESIGUM is an ideal protective coating for concrete structures, including industrial buildings, bridges, tunnels, and road works. Its waterproofing capacity protects against water, aqueous solutions of polluting gases such as nitrogen, carbon oxides, and sulphuric anhydrides. This protection helps to prevent damage caused by freeze/thaw cycles and penetration of antifreeze salts and gases in aggressive atmospheres, ultimately improving the durability of the structures.

- A RESIGUM coating is highly resistant to aging and preserves in time its elasticity, flexibility and waterproofing features;
- It features good resistance to abrasion which makes it right for pedestrian areas;
- Thanks to its elasticity it can restrain micro-cracks in concrete;
- Good adhesion both on concrete and bricks;
- It can be painted with RESICOLOR 451, 473, 475: these products reduce elasticity of the coating;
- It does not have tar, bitumen and volatile substances.

How to use

Preparation of the substrate
Carry out sand-blasting or water cleaning to achieve a clean and healthy bottom, removing any trace of detaching agents, fats and oils, rust and grout.
Even out any imperfections of the foundation (gravel nests, porosities, spacer holes, caissons) and remove possible projecting parts through grinding. Wet the support until it becomes water saturated; puddles and aquaplaning need to be removed before laying the product.

Preparation of the product
Pour component B (liquid) into a clean, large bucket. Slowly add component A (powder) to component B (liquid) and mix at low speed for 3 to 5 minutes using a drill fitted with a propeller/spiral until a smooth and uniform mixture is achieved.

Application
Avoid application with high temperatures, with wind or with dry surface: these conditions result in fast evaporation of the mixture water and consequently hydration reaction of the cement cannot be completed. Hardening is only apparent and the coating tends to pulverize.
If you wish to work in such conditions we recommend protecting the coating with wet jute sheets or to spray nebulized water for 1 – 2 days following application.

Notes
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Technical characteristics

Water permeability w	UNI EN 1062-3	0,017 kg/(m^2·h^{0,5})
Adhesion to concrete	UNI EN 1542	> 1,2 MPa
Water vapour transmission μ	UNI EN ISO 7783	
	G	0,004 g/h
	V	19 g/(m^2·d)
	S_d	1,05 m
	μ	562
Static puncturing (*)	UNI EN 12730 – method B	20 kg
Dynamic puncturing (*)	UNI EN 12691 – method A	2000 mm
Static Crack-bridging (23 °C)	UNI EN 1062-7	A2 (> 250 μm)
Tensile strength	UNI EN 12311-2	1 MPa
Elongation at break	UNI EN 12311-2	21 %
Tensile strength with glass fibre mesh (150 g/m^2)	UNI EN 12311-2	32 MPa
Elongation at break with glass fibre mesh (150 g/m^2)	UNI EN 12311-2	4 %
Density of the hardened product		2,00 Kg/dm^3
Mixing ratio A+B		100+33

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Use and hardening times

Temperature	Time of use
10 °C	130 min.
20 °C	50 min.
30 °C	20 min.

With constant curing at about +20 °C, RESIGUM coating may be walked upon after 18 hours and may be subject to mechanical stress after 4 days. Full hardening occurs after at least 7 days.

Walkable	18 hours
Usable	4 days
Full hardening	7 days

Consumption

Type of coating	Area of use	Consumption per layer
With fiber glass mesh	Terraces, swimming pools, basins, parking areas, bathrooms and pedestrian areas in general.	2 ÷ 2,5 kg/m^2
Without fiber glass mesh	Piping, road barriers, curbs, cantilever roofs, plasters with micro-cracks, elevator pits, simple protection against smog, chlorides and sulphates.	1,5 ÷ 2 kg/m^2

In both cases we recommend applying two layers of product.

Packaging and storage

Available in 26,6 kg packages (A + B component).
If stored in its original and sealed package and if kept in dry and sheltered places, the products remains unaltered for at least six months.

Cleaning tools and health precautions

Always refer to the appropriate safety data sheets before handling the product.

To clean tools use water or RESISOLV 196.
The product is not dangerous: wearing gloves and glasses to protect hands and eyes is enough.
In case of contact with the skin, rinse immediately with water and neutral soap; in case of contact with eyes, rinse immediately with running water for 10/15 minutes, then seek medical advice.

Do not rinse with solvents.

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