

BETONCOVER

PROTECTIVE ACRYLIC ANTI-CARBONATION ANTI-ALGAE COATING FOR CONCRETE

series 433

DESCRIPTION

BETONCOVER is an acrylic resin based exterior protective paint in an aqueous dispersion that has anti-algae properties and a satin finish.

The product is CE marked, it respects regulation EN 1504-2 which lays out the performance requirements for products used to repair and protect concrete structures.

BETONCOVER has excellent resistance to chemical attack and weathering and provides an effective anti-carbonation barrier by eliminating or reducing the problems associated with the corrosion of metal reinforcement bars.

INSTRUCTIONS FOR USE

May be applied on cement-based surfaces: concrete, reinforced concrete and all cement-based mortars in general.

TECHNICAL SPECIFICATIONS

- Type of Binder: acrylic copolymer in aqueous emulsion

Performance characteristics relative to CE marking

* Classification EN 1504-2: protection against ingress (PI) - coating (C) – system of conformity attestation 4 (data refers to concrete, for a dry film thickness of 150 µm).

* CO₂ Permeability per UNI EN 1062-6: Sd>50 m (obtainable with a thickness of 135 µm)

* Water vapour transmission rate per UNI EN ISO 7783-2: class I, Sd<5 m

* Liquid water permeability per UNI EN 1062-3: w<0.1 kg/m²h^{0.5}

* Bond strength by pull-off per UNI EN 1542: >1 MPa

- Classification per UNI EN 1062-1: (paints for exterior)

.Gloss per EN ISO 2813: class G₃ (<10 matt)

.Dry film thickness per ISO 3233: class E₃ (100-200 µm)

.Grain size per EN ISO 1524: class S₁ (<100 µm fine)

.Water vapour transmission rate per UNI EN ISO 7783-2: class V₂ (0,14≤Sd<1,4 m medium)

.Liquid water permeability per UNI EN 1062-3: class W₃ (W≤0,1 low)

.Crack-bridging per UNI EN 1062-7A: class A₀ (no requirement)

.CO₂ permeability per UNI EN 1062-6: class C₁ (<5 g/m²d, Sd>50 m)

Other characteristics

- Specific gravity per UNI EN ISO 2811-1: 1,40±0,05 kg/l

- Viscosity per UNI 8902: 22400 ± 1400 cps at 25 °C (Brookfield viscometer)

- Wet-scrub resistance per UNI 10560: >10000 cycles, excellent

- Gloss per UNI EN ISO 2813: <5, dead matt

- Dirt pick-up per UNI 10792: ΔL≤3, very low

- Mould and algae resistant per UNI EN 15457 and UNI EN 15458

- Drying time (at 25 °C and 65% R.H.): to touch in 30 min; to recoat after 4 hours.

PREPARING THE SURFACE

Concrete surface:

- Make sure that the surface is thoroughly dried and aged. Resurface or consolidate using specific products if necessary.

- If mold is present, treat the surface with COMBAT 222 cleanser code 4810222, and with COMBAT 333 reconstruction code 4810333.

- Brush or wash to remove any efflorescence and any old peeling paint. Completely eliminate any raised layers of lime-based or tempera paints.

- Remove any dust, smog or other deposits by brushing.

- Remove any crumbling structural cement.

- The metal reinforcement disks visible on the surface must be carefully brushed and treated with BETOXAN PRIMER 9490125 passivating agent.

- Restore the missing parts with the smoothing coats BETOXAN 400 or BETOXAN 300 Non-shrinking thixotropic fiber-reinforced mortar 9490140/130; perform the final smoothing with BETOXAN 200 Non-shrinking anti-carbonation smoothing coat 9490120.

- Make sure that the support is completely dry and apply a coat of ISOMARC 4410111 solvent-based wall fixative or micronized solvent-free fixative ATOMO 8840001.

- Apply BETONCOVER as described in the application instructions.

(The thinning of the fixative and the quantity to be applied depend on the level of absorption of the surface and should be determined by performing preliminary tests on the specific surface.)

APPLICATION INSTRUCTIONS

- Air and support surface conditions:

Air temperature: Min. +8 °C / Max. +35 °C

Relative environmental humidity: <75%

Support surface temperature: Min. +5 °C / Max. +35 °C

Moisture level of the support surface: <10%

- Avoid applying when surface condensation is present, or in direct sunlight.

- To avoid compromising the optimal appearance and performance of the product, we recommend that it be applied only in the aforementioned climate conditions, and that the surfaces be protected from rain and damp for approximately 48 hours. This will allow the product to dry completely and ensure even polymerization, which takes place in approximately 10 days.

- Surfaces bathed by rainwater during the approximately 10 days, could show translucent vertical lines. Such an occurrence does not compromise the product's performance, and may be removed by high-pressure water cleansing or after subsequent rainfalls.

- Application on surfaces with salt efflorescence or subject to rising damp may interfere with the product's adherence to the support. It is therefore necessary to first reconstruct the masonry using dehumidifying plasters, then paint with the NEPTUNUS siloxanic system.

- The protection of anti-mold and anti-algae finishes is of sacrificial nature: the efficacy and durability are strongly influenced by the severity of the environmental and climatic exposure, the building category, and the application system

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selected.

- Tools: brush, roller, spraying.
- Number of coats: at least 2 coats must be applied.
- Dilution: maximum 20% with water.
- Tools should be cleaned immediately after use with water.
- Indicative coverage: 6-7 sq.m./l. per coat over a smooth surface of average porosity. It is recommended that a test be effected on the surface to determine the consumption of the product.

SAN MARCO GROUP guarantees that the information herein is provided to the best of its technical and scientific knowledge and based on its experience; nonetheless, the company may not be held liable for the results obtained using these products, as application conditions are beyond its control. It is recommended to always make sure that the product is suited to each specific instance. The present sheet voids and replaces any previously existing sheets. For further technical information call the technical service +39 041 4569322.

TINTING

The product may be tinted by means of the Marcromie Color Matching System.

When using multiple batches it is recommended to remix the various products together to avoid slight differences in shading.

For outdoor tasks it is a good rule of thumb to always use material from the same batch, from corner to corner. For tasks where it is unavoidable to continue on a wall with a different batch, do not place the batches contiguously. For the transition point, use any interruptions in the continuity of the surface: moldings, corners, cables, etc.

STORAGE

Maximum temperature for storage: +30 °C.

Minimum temperature for storage: +5 °C.

The product should be preferably used within 2 years from date of manufacture when stored in original unopened containers and in appropriate temperature conditions.

SAFETY RULES

Limit value EU (Dir. 2004/42/EC)

Cat . C: Coatings for exterior walls of mineral substrate (water-base): 75 g/l (2007) / 40 g/l (2010)

BETONCOVER Contains max: 40 g/l VOC

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. / Keep out of the reach of children.

Do not empty into drains. / Wear suitable protective clothing and gloves. / If swallowed, seek medical advice immediately and show container or label.

The product must be transported, used and stored in accordance with the standards in force regarding hygiene and safety; let the residues dry out completely and treat them as special waste. Consult the safety sheet for additional information.

SPECIFICATION ITEM

Acrylic anti-algae, anti-carbonation protection for concrete, classified according to EN 1504-2 as protection against ingress (PI) - coating (C).

Application, on previously prepared surfaces, of BETONCOVER series 433 based on acrylic resin in aqueous solution, in at least 2 coats and in quantities determined by the absorption of the surface.

Supply and application of the material € per sq.m.

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