

RC 221

WATERPROOF CEMENTATION

Waterproofing



ADVANTAGES OF RC 221

- ✓ Direct application on masonry, even buried
- ✓ For ponds, swimming pools and basement walls
- ✓ Manual or mechanical application
- ✓ Can remain uncovered
- ✓ Applicable in a layer thickness up to 20 mm

Description

RC 221 is a water repellent mortar, ready to use, based on a hydraulic binder and aggregates. For manual application or for mechanical application (spraying).

Application domain

RC 221 is a mortar intended to ensure the waterproofing of concrete and masonry inside and outside, even if buried and under water. For example for ponds, swimming pools, basement walls, retaining walls, etc.

Substrate

Admissible substrates: on-site poured concrete, cast-in-place concrete blocks, solid or hollow concrete blocks with sufficient horizontal and vertical (masonry) reinforcement.

The substrate must be clean and structurally sound, and must have undergone an appropriate surface preparation in which all loose or poorly adhering parts have been removed. The substrate must also be free of traces of oil, grease, cement residue, post-treatment products, old coatings and any substance that could adversely affect the adhesion of the mortar.

For specific locations (edges, corners between walls/floorboards, walls/walls):

Make rounded baseboards with RC 730 BETONREP. Allow to dry before covering. Skirting boards must be installed before plastering the walls and performing the substrate. They can consist of different parts according to the specific characteristics of the works (stairs, free forms) and the corresponding covering.

Moisten the substrate the day before application. Moisten the substrate before applying the mortar. The substrate must not be soaked.

Application instructions

Mixing of RC 221

To make the mortar, prepare RC 221 with tap water. Mix one bag of 25 kg RC 221 with 5 liters of tap water at a low speed (about 500 rpm) with an electric mixer, in a concrete mixer or in the mixing bowl of the spraying machine. The product can also be mixed by hand, but only for small quantities.

Pour the appropriate amount of water into a clean tub, slowly add the powder to the water as you begin to mix. Mix for at least 3 minutes to obtain the required consistency. Prepare only the amount that is usable during the practical processing time of the product. The mixed product can then be used within one hour after it has been mixed with water.

Application of RC 221

RC 221 is applied manually with a trowel, mechanically with a spraying machine (wet) or with a SABLON funnel gun in 1 or 2 spray passes. Once applied, smooth the mortar with a rule and rub/tally up with a trowel (the appearance of the numbered surface must be in function of the chosen finish to be applied on it).

Pond or pool floors

Prepare RC 221 in the concrete mixer until it has a solid consistency. Make a solution of 1/3 RC ACRYPLAST and 2/3 tap water. Mix 1 part mortar with the diluted solution to obtain a creamy consistency. Apply the mash gradually as the work progresses (the mash should feel sticky to the touch). Apply RC 221 in a firm consistency so that the screed can be pulled and pressed flat immediately after spreading. Thickness of application: minimum 10 mm - maximum 20 mm.

Walls in levelled concrete

On in-situ concrete walls, an adhesion layer must first be applied (projected). This consists of RC 221 mixed with 5 liters of water and 10% RC ACRYPLAST. This first adhesive layer is sprayed/projected at a thickness of 3 to 5 mm, making sure that all irregular peaks in the spray layer are flattened, to avoid too thick spots. Apply the RC 221 when this adhesion layer starts to tighten (hard when pressed with nail, but still wet). After the adhesive layer has had 3 to 4 hours to dry, fill in the thickness, which should not exceed 10 mm in total. Sanded finish.

Walls in concrete blocks (hollow or solid blocks with reinforcing horizontal and vertical joints, swimming pools and ponds and formwork blocks

Apply the plaster directly in a thickness of 10 to 20 mm. Work with a small area so that you can apply the sanded finish within the open time of the product (60 minutes), especially on substrates exposed to heat.

Consumption

17 kg/m²/cm thickness.

Technical characteristics

PRODUCT DATA

Appearance:	Powder	
Color:	Gray	
Dry bulk density:	± 1500 kg/m ³	EN 1015-10
Maximum aggregate size	≤ 1,5 mm	

APPLICATION DATA

Water content of the mixture:	25 – 27%	
Mixing ratio:	1 bag + 6,25 - 6,75 liters water	
Minimum application temperature:	+ 5°C	
Maximale application temperature:	+ 30°C	
Working time:	~ 60 minutes	

TECHNICAL DATA

Bulk density of fresh mortar:	~ 1900 kg/m ³	EN 1015-6
Bulk density of hardened mortar:	~ 1800 kg/m ³	EN 1015-10
Adhesion:	0,5 N/mm ² (FP) B	EN 1015-12
Compressive strength:	24 N/mm ²	EN 1015-11
Flexural strength:	7 N/mm ²	EN 1015-11
Water absorption by capillarity:	W2	EN 1015-18
Water vapour transmission coefficient:	≤ μ 15	EN 1015-19
Thermal conductivity:	0,82 W/Mk (tab. Average value; P=50%)	EN 1745, A.12
Specific heat capacity:	1,0 kJ/kgK	EN 1745, A.12
Reaction to fire:	Class A1	EN 13501-1
Durability:	Assessment based on the provisions valid at the intended place of use of the mortar EN 998-1	EN 998-1

Safety

Consult the most recent safety data sheet.

Remarks

- The application temperature is between +5°C and +35°C.
- Cure or carefully rewet immediately after application.
- In case of manual application, repetitions should be avoided.
- Avoid direct sunlight when applying outside.
- Do not apply to frozen or thawing surfaces. No frost should act on the product for 24 hours after application.
- Is not suitable for repairing cracking in the substrate.
- It is prohibited to add hydraulic binder or auxiliary agents.

Cleaning of equipment

Clean all equipment and tools with water immediately after use. Cured material can only be removed by physical scraping.

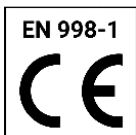
Storage / Shelf life

12 months after date of manufacture in the original, unopened packaging in a dry, frost-free space.

Packaging

Bags of 25 kg (art. no. 51250) on disposable pallets of 49 bags, protected with plastic stretch film.

Photos



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Legal Notes

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