

**bauroc**

BUILDING SOLUTIONS



BAUROC RENDERING SYSTEM  
**EXTERNAL FINISHING**

# bauroc RENDERING SYSTEM – external finishing



Bauroc offers rendering/plastering mortars suitable for aerated concrete walls. The products are suitable for both interior and exterior use.

## External rendering variants

For external rendering we recommend Bauroc multi-coat render system: bauroc LIGHTWEIGHT RENDER is applied to the bauroc masonry to provide the reinforcing base coat. A thickness of at least 10 mm must be observed. bauroc FINISHING RENDER is applied as a finishing layer of the system. Finishing render is white color and finished with a scratch texture.

To obtain the desired color, bauroc FINISHING RENDER must be painted with a suitable facade paint, such as Caparol Sylitol Finish

130 or Caparol ThermoSan.

Ready-to-use renders can also be used as a finishing layer, which allows for other textures. These renders can be tinted by manufacturer. It is important to follow the instructions given by the manufacturer of the finishing render and make sure the render used has good vapour permeability.

1. bauroc masonry.
2. Bonding primer - bauroc PRIMER.
3. Base coat, at least 10mm.
  - 3.1. bauroc LIGHTWEIGHT RENDER, layer thickness ca 7mm.
  - 3.2. Reinforcement – fibre glass mesh 160 g/m<sup>2</sup>, such as Capatect Gewebe 650/110.
  - 3.3. bauroc LIGHTWEIGHT RENDER, layer thickness ca 3mm.
4. Finishing layer – bauroc FINISHING RENDER.
5. Façade paint if desired, two layers.



## **Requirements for substrate**

The substrate must be even, clean, dry, and free from all substances, that may prevent good adhesion. There must be no holes, larger gaps and hardened glue on the wall surface.

## **Application Conditions**

When performing rendering, the following requirements should be met. During the application and curing of the render, the air and surface temperature must not fall below +5°C or rise above +30°C. The recommended temperature is above 10 °C. Freshly rendered surface should be protected from too rapid evaporation of water from the render. It is important that surfaces are protected from direct sunlight and strong wind. Avoid performing rendering works

in case of high relative humidity (over 80%). In high humidity, the curing time is longer.

In principle, exterior walls should not be rendered at freezing temperatures, but if it is unavoidable, the scaffolding must be covered with thermal protective covers. A stable air temperature of at least +5 °C must be ensured under the covers, until the render is curing.

## **Preparation work and application of renders (rendering)**

### **Checking compliance with the requirements**

Check the compliance with the requirements of the substrate as well as the compliance of temperature and air humidity. If the wall surface does not meet the requirements, additional works are required. Clean the wall from any dirt if necessary. Fill the major defects on the wall surface with bauroc REPAIR MORTAR. The minor defects, such as empty vertical joints, fill with bauroc PUTTY (prepare a thicker mortar!) or bauroc THIN JOINT MORTAR.

After that, smooth the wall surface by using a bauroc SANDING BOARD. Remove loose dust with a brush or a vacuum cleaner. If the substrate is wet, let it dry sufficiently before plastering. If the weather conditions are very variable during the plastering, incl. curing layers of plaster, it is important to take the necessary measures to create suitable conditions or to wait for suitable weather conditions for plastering before starting work.

### **Priming the substrate**

bauroc PRIMER is particularly suitable for treating porous substrates as aerated concrete, reducing suction and ensures proper adhesion between the substrate and render coat. This product is part of bauroc rendering system. Dilute the concentrate with tap water in a mix ratio 2:1 - two parts of Primer and one part of water. Apply primer by using a brush or a paint roller liberally and evenly to the entire surface to the saturation point. Do not prime in direct sunlight, rain or strong wind. Protect primed surfaces from too rapid drying. Priming should be performed immediately before plastering. At normal temperature, primed surface can be plastered after approx. 12 hours.



*Priming the substrate*

## Application of beading

Using the correct type of render beads for a rendered façade will ensure the best finished look, ensure durability and help protect the render from water damage, staining and cracking. Apply Meshed PVC Beads to the corners, around the window and door openings also bellcast and stop beads where necessary. Cut

beads to the required length, suitable scissors are normally used. On masonry, beads are set onto render dabs to the required depth and plumbed straight, bauroc bauroc LIGHTWEIGHT RENDER is suitable for this. Then place 30 x 40 cm strips cut out from fibre glass mesh as diagonal reinforcement in the corners of openings.

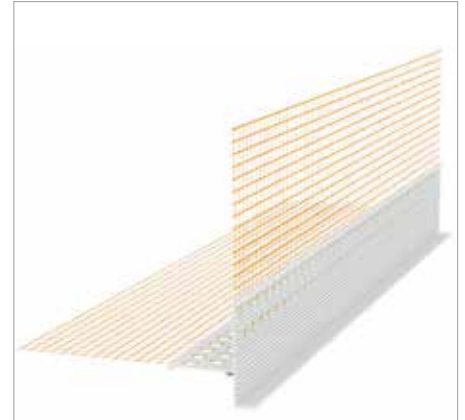
## Render Beads



*Corner Bead*



*Window Protection Bead*



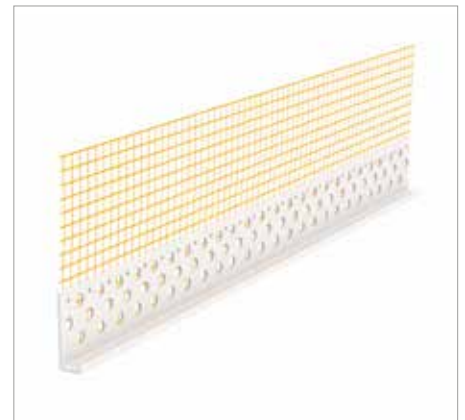
*Corner Bead with Dripnose*



*Stop Bead*

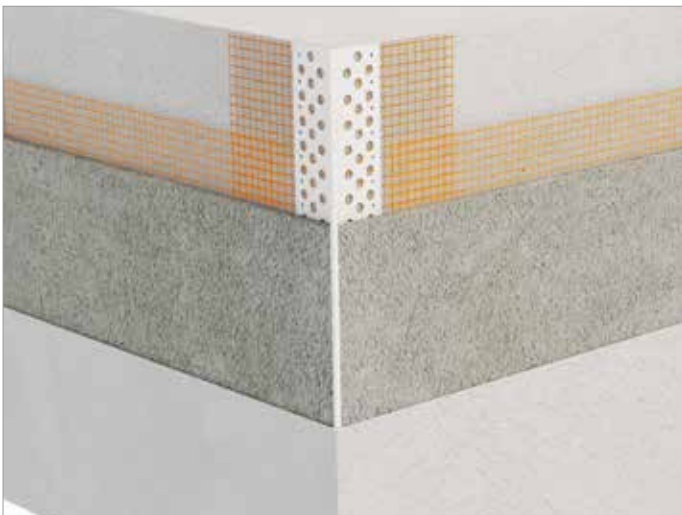


*Movement Bead*



*Bellcast Bead*

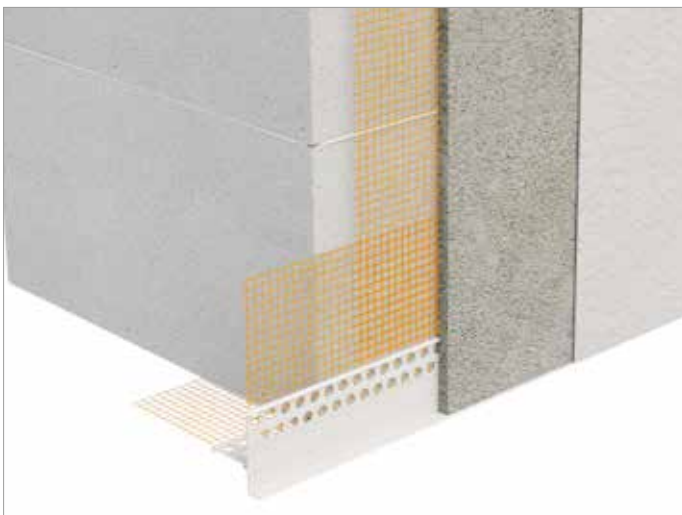
## Application of beading



*Corner Bead*



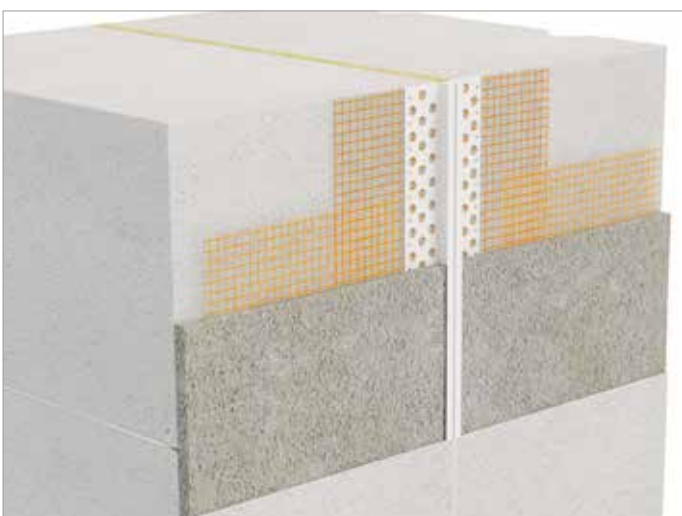
*Window Protection Bead*



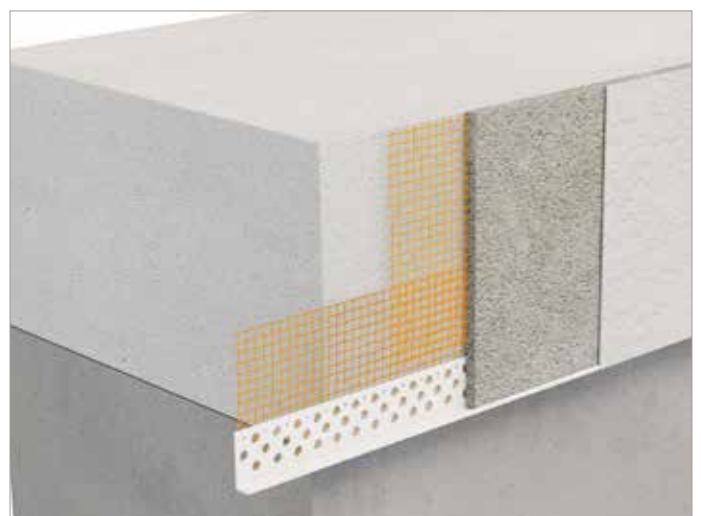
*Corner Bead with Driprose*



*Stop Bead*



*Movement Bead*



*Bellcast Bead*

## Preparation of mixture

The contents of the package of bauroc LIGHTWEIGHT RENDER (25 kg) are mixed with 6–7 l of clean water to a uniform consistency. Stirring time is approximately 5 minutes, depending on stirrer power. Then let the mixture stand for about 5 minutes and mix

again. If necessary, add a little water to adjust the consistency. Freshly prepared mortar should be used within approx. 2,5 hours. Be sure to follow the mixture preparation instructions on the product package.

## Method of Application

The substrate must be primed and primed surface dry before rendering. The optimal method for application of bauroc LIGHTWEIGHT RENDER to substrate is using Render Spray Machine. This ensures an even layer with required thickness upon just a single application and easier and quicker processing of the layer later on.

There are two common methods for application by hand:

1. the traditional method involves applying plaster to the wall with a dipper or a trowel and results in the best adhesion and thicker layers
2. the other method involves using a putty knife or notched trowel and requires using a notched trowel of appropriate size to ensure the necessary layer thickness.



*Render application with a pump*



*Render application by hand*

With both methods, by machine or by hand, the render is applied to substrate in two layers. First, apply the render of approx. 7 mm (2/3 of the total thickness of the base coat) to the surface and install an overlapping fibre glass reinforcement mesh in it. Adjacent mesh sheets should overlap each other by approx. 10 cm (the required overlap is usually indicated with a marking on the mesh). Mesh sheets horizontal joints should have an overlap of a min. 20 cm.

Steps for Mesh Installation:



1. When a sufficient area has been applied, comb first render layer through with a notched trowel, this will provide a consistent depth of base coat.

2. ja 3. Cut sections of reinforcing mesh from the roll and apply as shown in the image. Float mesh into the top of the base coat render and then smooth over gently.

The second layer of bauroc LIGHTWEIGHT RENDER must be applied without delay, wet-on-wet, to guarantee complete embedding of all fabric sheets and a total thickness of reinforced base coat approx. 10 mm.

**NB! The total thickness of base coat must be at least 10 mm!**

The surface of the render, which has already started to harden, should be additionally smoothed to guarantee as possible smooth surface for the finishing layer.

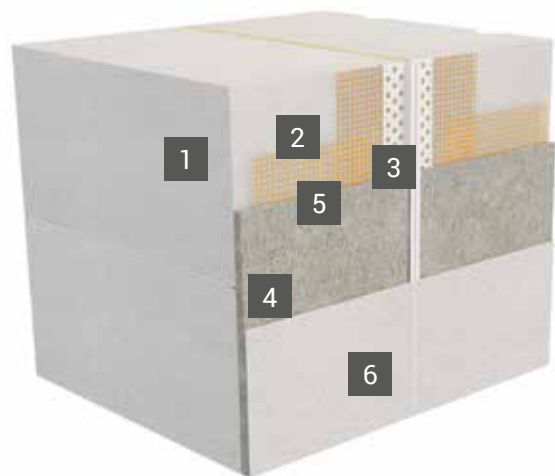
## Movement joints

Joints connecting the surfaces made of different materials (eg brick walls + bauroc block walls), non-overlapping wall joints and movement joints of masonry should be covered with a special Movement Bead, placed inside the base layer.

1. bauroc masonry.
2. Bonding primer - bauroc PRIMER.
3. Movement Bead
4. Base coat, bauroc LIGHTWEIGHT RENDER.
5. Reinforcement – fibre glass mesh 160 g/m<sup>2</sup>, such as Capatect Gewebe 650/110.
6. Finishing layer – bauroc FINISHING RENDER.

## Finishing/Decorative Layer

A layer of bauroc FINISHING RENDER is applied directly to completely hardened bauroc LIGHTWEIGHT RENDER. Such finish is white in colour. The texture of rendered surface depends on the choice of tools used for treating. Before applying finishing render, make sure that the previously rendered surface is as smooth as possible and has no bumps or holes. If necessary, use putty knife to remove the bumps, and fill recesses and holes with bauroc LIGHTWEIGHT RENDER or bauroc PUTTY.



Priming the substrate for finishing render is not necessary in case of a newly rendered wall. In case the works are suspended for a period longer than 4 weeks (e.g. in winter), the render should be primed by using a paint roller and Caparol Putzgrund 610. The primed surface needs to dry for 12 h. Apply bauroc FINISHING RENDER by using a render sprayer or a stainless-steel trowel homogeneously to the surface and rub down to the grain size.



Layer thickness depends on the grain size of the premix, which in case of bauroc FINISHING RENDER is 2 mm. Apply freshly prepared mortar to the wall starting from the upper part of the wall and moving downwards. Applying should be planned according to the principle of completing a single work area at one go to avoid lapping. In places where transitions/joints cannot be avoided, use suitable masking tape to separate the surfaces. Vertical joints should be planned in hidden places, e.g. behind downpipes. After a short time the textured finish can be created using a plastic

float, leaving the texture for a short time will prevent “drag” when rubbing up. The float is rubbed over the surface in a circular motion. Working in the same direction at all time to ensure consistency of finish, scrape the float clean regularly to remove any build-up of materials/ excess/ waste. Surface can be rubbed down only until it is wet enough. Using a sprayer to apply plaster to the wall results in grainy texture even without smoothing the surface with a plastic float.



## **Façade painting**

To ensure long-lasting clear white colour of bauroc FINISHING RENDER, we recommend additionally painting the rendered surface. The surface can be painted after it has sufficiently hardened, which, under normal conditions, is no earlier than 7–10 days after rendering. Painting too early may cause permanent dark or light patches in the coat of paint later on. Use silicate façade paint (Caparol SylitolFinish 130) or silicone façade paint (Caparol ThermoSan). Prior to painting, prime the surface with Capagrund Universal primer to achieve better adhesion between finishing render and paint. The primer should be tinted with the similar colour. Use a paint roller for applying the primer and follow the same principles as when painting. The primed surface needs to dry for 12 h.

in the quantity that is no more than 10% of the volume of the paint. Then mix the paint properly.

- Mix the paint carefully.
- Before painting, prepare a timeline of how and when each section of the façade will be painted. Cover all other surfaces with plastic sheet to avoid soiling.
- Paint the façade starting from the top and moving downwards.
- Use a paint roller to apply an even coat of paint on the surface and avoid dripping.
- Always apply the product in two coats of paint, at least 24 hours apart.
- If necessary, dilute the paint for the first coat by adding water

- Single surfaces should be painted at one go, using the wet-on-wet method.
- In order to achieve homogenous façade colour (especially when using dark shades), it is recommended to not use up all of the paint in the bucket, but instead, add ¼ of the paint to the paint bucket to be used next.





# Products of bauroc RENDERING SYSTEM

## bauroc PRIMER



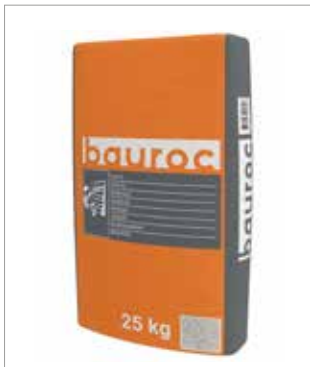
**bauroc PRIMER** is intended for priming aerated concrete walls both indoors and outdoors before rendering and plastering. Transparent after drying.

- Density ca 1.1 kg/dm<sup>3</sup>.
- Concentrate consumption 0.1 - 0.35 l/m<sup>2</sup>, depending on substrate absorbency.
- Supplied in concentrated form in 10 litre plastic

containers, 50 containers per pallet. Before use, dilute concentrate product with water in the ratio of 2 parts by volume of bauroc PRIMER and 1 part by volume of water.

- Keep in a cool place but protect from freezing! Shelf life 12 months. Date of manufacture: see the package.

## bauroc PUTTY



**bauroc PUTTY** is a fine grain finishing putty for levelling masonry, uneven substrate, or plastering in both dry and wet rooms, indoors and outdoors.

- Maximum grain size is 0.2 mm.
- Dry density of hardened mortar: 1.4 - 1.5 kg/dm<sup>3</sup>.
- Compressive strength after 28 days: CS IV.

- Adhesion strength: > 0.40 N/mm<sup>2</sup>, FP: A,B.
- Thermal conductivity:  $\lambda_{10, dry} \leq 0.45$  W/(m · K)
- Product consumption: ca 1.4 - 1.5 kg/m<sup>2</sup>/mm.

## bauroc LIGHTWEIGHT RENDER



**bauroc LIGHTWEIGHT RENDER** is a mineral reinforceable lightweight render for creating a substrate for the finishing layer of aerated concrete masonry walls for indoor and outdoor use. bauroc LIGHTWEIGHT RENDER is a reinforceable rendering mortar made of lime and cement binder with high-quality mineral additives, which make it extremely elastic.

- Dry density of hardened mortar: 1.1 - 1.3 kg/dm<sup>3</sup>.

- Compressive strength after 28 days: CS II.
- Adhesion strength: > 0.10 N/mm<sup>2</sup>, FP: B.
- Thermal conductivity:  $\lambda_{10, dry} \leq 0.33$  W/(m · K)
- Product consumption: ca 1.2 kg dry mortar is required for a 1 mm thick layer.

## bauroc FINISHING RENDER



**bauroc FINISHING RENDER** is mineral finishing plaster for exterior finishing with scraped structure.

- Grain size 2 mm.
- Dry density of hardened mortar: 1.6- 1.7 kg/dm<sup>3</sup>.
- Compressive strength: CS IV.
- Adhesion strength on concrete: > 0.30 N/mm<sup>2</sup>, FP: A, B.

- Capillary water absorbency: W1.
- Water vapour permeability coefficient:  $\mu: \leq 25$
- Product consumption depends on the complexity of the building and due the worker "handwriting". For large buildings with straight walls, the product consumption starts from 2.9 kg/m<sup>2</sup>, for more complex, the actual consumption may reach 3.5 - 4 kg/m<sup>2</sup>.



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