



# benqusan<sup>PUR</sup>

Special purpose active agent for damp and salt-loaded masonry

## benqusan-PUR

A special purpose active agent (**semi-finished product**) for on-site application that can be used, together with sand (0-2, 3 or 4 mm) and cement (CEM I 32,5 R, CEM II 32,5 A-L und CEM II 32,5 A-LL) to mix mineral-based demisting plasters for all kinds of building fabric.

*This corresponds to a cement-bonded, vapor-permeable ready-mixed dry mortar in accordance with DIN EE 998-1 for all kinds of building fabric, in particular damp and salt-loaded masonry.*

## System / areas of application

Plasters made using benqusan-PUR are particularly well suited for application on damp and salt-loaded (damaged) masonry, and as a preventative measure on new building fabric prone to dampness. With benqusan-PUR all forms of chemical pretreatment (e.g. silicification, impregnation, salt conversion, etc.) become superfluous. The existing building fabric is naturally preserved in a non-destructive and cost-effective manner by tapping into the forces of nature.

Suitable for inside and outside walls, as well as for basements. When used as a wall-base plaster, areas in contact with the earth should be permanently protected from moisture penetration. *Recommendation: apply a 10 – 15 cm layer of waterproof render to areas in contact with the earth.* benqusan-PUR can be used to make up a complete plastering system for all layers (leveling/repair, bond/key and functional layers). In this way it is possible to obtain the greatest degree of permeability between the individual plaster layers. To round off our specialty plaster system, we recommend our special active compounds for fine and finishing plasters.

## Technical specification

|   |  |
|---|--|
| Mortar group                                  | GP CS III in accordance with DIN EN 998-1        |
| Grain size                                    | 0 – 2.0 mm                                       |
| Cement  | CEM I 32.5 R                                     |
| Fresh mortar unit weight                      | < 1.30 kg/dm <sup>3</sup>                        |
| Entrained air                                 | > 24 % vol.                                      |
| Dry mortar unit weight                        | < 1.13 kg/dm <sup>3</sup>                        |
| Compressive strength                          | 1.5 – 4.8 N/mm <sup>2</sup>                      |
| Adhesive strength                             | ≥ 0.1 N/mm <sup>2</sup>                          |
| Water vapor diffusion resistance factor $\mu$ | < 10   |
| Water absorption $w_{24}$                     | < 0.20 kg/m <sup>2</sup> ·h <sup>1/2</sup> (W 2) |
| Workability                                   | < 3.0 cm   |
| Application temperature                       | > 3 °C   |
| Fire resistance                               | A1   |

## Substrate/ preparation

Completely remove damaged plaster up to at least one meter over the measurable dampness zone and scrape away pointing to a depth of approx. 2 cm. The substrate must be sufficiently sound and stable (remove loose masonry, dirt and dust); missing bricks and stones must be replaced. Under no circumstances should gypsum be used to fasten electrical cables and the likes; all gypsum remnants must be completely removed.

*Poorly cleaned and prepared substrates, e.g. mortar remnants, dirt and dust, can lead to hollow cavities and cracks once the plaster hardens.*

## Mixing

1. Fill the required (clean) water into the mixer
2. Add sand, cement and benqusan-PUR
3. Adhere strictly to the prescribed **mixing time of 8 – 12 minutes** (depending on type of mixer and mixing intensity)

**Bond and key layer:** approx. 11 – 15 liters of water\*, 50 liters of washed sand (grain 0-2, 3 or 4 mm), 200 g benqusan-PUR, 25 kg cement CEM I 32.5 R (alternatively CEM II 32.5 A-L or CEM II 32.5 A-LL)

**Functional layer:** approx. 10 – 14 liters of water\*, 50 liters of washed sand (grain 0-2, 3 or 4 mm), 200 g benqusan-PUR, 25 kg cement CEM I 32.5 R (alternatively CEM II 32.5 A-L or CEM II 32.5 A-LL)

\*adjust water requirement according to moisture in sand



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|---------------------------|--|
| <b>Application</b>        | <p>Wet an area of wall corresponding to one batch of mortar to the point of saturation. Allow 24 hours for the scratch coat to set before applying the functional layer or other layers. Longer setting periods are also possible.</p> <p>Apply the <b>bond and key coat</b> forcefully over the entire surface (approx. 5 – 8 mm) to ensure it keys well into the wall, providing a good bond for the functional coat.</p> <p>Apply the <b>functional coat</b> in one or more layers of up to 20 mm per working step and day. For leveling coats, scratch the surface to provide a key for the next layer to adhere to. Smooth the coat in a single pass – do not rub in repeated passes.</p> |
| <b>Paint / final coat</b> | <p>Use only paints with very good vapor permeability.</p> <p>To round off our plastering system for all building fabrics, in particular damp and salt-loaded masonry, we recommend our benqusan-FKZ finishing plaster. It is also possible to use a thin coat of other commercially available, mineral-based finishing plasters. Before using non-system paints and/or finishing plasters, please consult our technical support team to ensure that the functionality of the system is not impaired and avoid later damage (e.g. efflorescence).</p>   |
| <b>Packing unit</b>       | 200 g pack of benqusan-PUR (10 cartons with 10 packs each = 20 kg)   |
| <b>Yield</b>              | Yield per 200 g pack of benqusan-PUR : approx. 87 liters of fresh mortar<br>Coverage per 200 g pack of benqusan-PUR : approx. 4.0 m <sup>2</sup> (20 mm layer thickness)   |
| <b>Storage</b>            | Store benqusan-PUR ready-mixed mortar in a dry place and use within 12 months.   |
| <b>Quality</b>            | Ready-mixed benqusan-PUR mortar is manufactured in compliance with DIN EN 998-1 and is subject to strict in-house inspections and functional tests in accordance with DIN EN 998-1, as well as independent third party monitoring by recognized institutes.  |
| <b>Safety</b>             | The cement-bonded, ready-mixed benqusan-PUR mortar is alkaline. Protect eyes, sensitive skin and wounds to avoid chemical burns. benqusan-PUR is ecologically safe and contains no harmful substances.   |

**Notice:** Do not add chemical additives or lime to mortar for damp and salt-loaded walls mixed on-site using benqusan PUR. On strongly absorbing substrates and/or too fast drying from draft, sunlight, heating or wind, dampen the applied plaster as required. Not suitable for use on walls in which the render is exposed to pressing water and/or seepage water. innovative building concept GmbH & Co. KG assumes no product warranty unless the respective processing instructions are followed. In addition to our processing instructions, the generally accepted rules of building technology according to the state of the art must be adhered to at all times. They must be adapted to the special needs and conditions of the project at hand. All representations made in this product data sheet result from extensive inhouse and independent third party testing and extensive, long-term experience. This datasheet supersedes all previously published datasheets. We reserve the right to make technical changes in the context of further developments and product improvements. Recommendations by any employee of ibc that deviate from information in this data sheet shall be deemed valid only if provided in written form.