



# benqusan<sup>SZ</sup>

Special-purpose render for damp and salt-loaded masonry

## benqusan-SZ

A mineral-based damp wall plaster with sand, suitable for all kinds of building fabric. Cement-bonded, vapor permeable ready-mixed dry mortar in accordance with DIN EE 998-1 for all kinds of building fabric.

## System / areas of application

benqusan-SZ is 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-SZ, 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-SZ 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	GPCS III in accordance with DIN EN 998-1
Grain size	0 – 4.0 mm
Fresh mortar unit weight	approx. 1.25 kg/dm <sup>3</sup>
Entrained air	approx. 37% vol.
Slump	180.0 ± 5 mm
Dry mortar unit weight	approx. 1.18 kg/dm <sup>3</sup>
Compressive strength	≥ 5 N/mm <sup>2</sup>
Layer thickness	max. 20 mm
Water absorption coefficient w <sub>24</sub>	0.12 kg/m <sup>2</sup> h <sup>1/2</sup>
Water vapor diffusion resistance factor μ	10
Thermal conductivity λ <sub>10, dry</sub> (in accordance with EN 1745)	≤ 0.47 W/(m·K) for P = 50 % ≤ 0.54 W/(m·K) for P = 90 %
Fire resistance	A1
Application temperature	+10 °C to +30 °C

## Substrate/ preparation

Prepare substrate in accordance with the WTA Leaflet 2-9-04 / D ("Renovation plasters").

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 the benqusan-SZ ready-mixed dry mortar
3. Adhere strictly to the prescribed mixing time of 8 – 12 minutes (*depending on the type of mixer and mixing intensity*)

Bond and key layer: 4.0 – 5.0 liters of water

Functional layer: 3.0 – 4.0 liters of water

Use only smooth, clean mixers: free-fall mixers with a capacity of at least 130 liters, single agitator up to 15 liters bucket size, fixed double agitator on a rotating plate with mortar tub capacity of at least 50 liters, and to a limited extent mortar pumps. Do not use continuous mixers.

It is essential that the prescribed mixing time is observed.

Do not use chemical additives. Observe mixing instructions on the sack.



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Processing	<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 <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>
Paint /final coat	<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>
Packing unit	25 kg of benqusan-SZ per sack (40 sacks per EU palette = 1 000 kg)
Yield	<p>Yield per 25 kg sack of benqusan-SZ : approx. 22.8 liters of fresh mortar</p> <p>Coverage per 25 kg bag of benqusan-SZ : approx. 1.14 m<sup>2</sup> (20 mm layer thickness)</p> <p>Consumption: 22 – 24 kg/m<sup>2</sup> (20 mm layer thickness)</p>
Storage	Store benqusan-SZ ready-mixed mortar in a dry place and use within 12 months.
Quality	Ready-mixed benqusan-SZ mortar is manufactured in compliance with DIN EN 998-1 and is subject to strict inhouse inspections and functional tests in accordance with DIN EN 998-1, as well as independent third party monitoring by recognized institutes.
Safety	The cement-bonded, ready-mixed benqusan-SZ mortar is alkaline. Protect eyes, sensitive skin and wounds to avoid chemical burns. benqusan-SZ is ecologically safe and contains no harmful substances.

**Notice:** Do not add chemical additives or lime to benqusan SZ ready-mixed mortar for damp and salt-loaded walls. 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 in-house and independent third party testing and extensive, longterm 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.