

The trailblazing
innovation



innovative building concept

*benqu*therm®

The patented, all-in-one
insulating renovation panel

*benqutherm® – The first true insulating renovation panel made
using our highly efficient demosturizing render system*

- Quick and easy application
- Superior insulating characteristics using exclusively non-combustible, renewable and natural raw materials
- No more waiting periods (wet-on-wet workflow).
- Significant and permanent savings in energy (heating) costs
- Suitable for all kinds of building structures – for both inside and outside application, especially on damp and salt-loaded masonry – without affecting the original look and feel of the façade
- Natural humidity regulation for a pleasant and healthy indoor living climate without mildew formation at the classical thermal bridges



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benqutherm®

Insulating renovation panel

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benqutherm® is a patent pending, mineral panel based renovation concept for damp and salt-loaded masonry with very high thermal insulation properties, as well as excellent fire protection characteristics.

Our products build on tried and true solutions from over 40 years of experience. The novel demisting renovation plaster in a ready-to-use panel format saves you the trouble of on-site mixing. The panels are easy to apply in a wet-on-wet process – the first renovation concept without setting and waiting periods. benqutherm® protects both your masonry and your health..

System / areas of application

benqutherm® was developed specifically for the renovation of historical buildings and masonry. It is a highly effective product with multifunctional properties such as water vapor permeability with over 50 % micro-pore air entrainment, salt resistance and demisting characteristics, as well as thermal insulation properties thanks to the nonflammable, mineral aggregates.

The newly developed benqutherm® multi-functional renovation panel system, used as an intelligent interior wall insulation system, combines water vapor permeability, thermal insulation and humidity regulation in a single system. As such, benqutherm® provides a one-of-a-kind combination of highly vapor permeable, thermally insulating, moisture regulating and non flammable material characteristics.

benqutherm® is a time and cost saving, wet-on-wet renovation concept without idle waiting periods.

benqutherm® is a multi-talent suitable for the renovation of exterior and interior walls, as well as basements.

Technical specification

Mortar group	GP CS III in accordance with DIN EN 998-1
Water absorption coefficient w_{24}	$< 0.20 \text{ kg/m}^2\text{h}^{1/2}$ (W2)
Thermal conductivity $\lambda_{10,\text{dry}}$ (tab. according to EN 1745)	$\lambda_{10,\text{dry}} \leq 0.10 \text{ W/(m} \times \text{K)}$ für P = 50% $\lambda_{10,\text{dry}} \leq 0.11 \text{ W/(m} \times \text{K)}$ für P = 90%
Entrained air	$> 50 \%$ vol.
Dry unit weight	$< 0.400 \text{ kg/dm}^3$
Water vapor diffusion resistance factor μ	< 10
Fire resistance	A1
Substrate temperature	5 °C to 30 °C

Substrate/ preparation

Completely remove old plaster and paint up to 80 cm over the visible or measurable area of damage. The substrate must be sound and stable (*remove loose masonry, dirt and dust and scrape away pointing to a depth of 2 cm*), as well as free of adhesion inhibiting substances (*mechanically clean the substrate*). Concrete surfaces must be porous.

Application

Apply a layer of benqusan®-MZ to the properly prepared substrate with a notched trowel (*at least 10 mm thick*). Level damaged masonry and pointing with benqusan®-MZ. Alternatively, on very unlevel substrates, benqusan®-MZ can be applied to the panels, as well. Afterwards press the benqutherm® insulating plaster panels onto the wall using light pressure. The panels are applied tiled, edge to edge. The panels can be cut to size using a circular handsaw, bench saw or hacksaw.

To obtain a smooth final surface, apply benqusan®-VZ to the joints or the entire surface, and/or apply benqusan®-FKZ finishing plaster with fiber-reinforcement.



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Panel sizes

800 mm × 400 mm
Thickness: 20 mm

Quality

benqutherm® insulating renovation panels are manufactured in compliance with DIN EN 998-1 and are 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.

Safety

benqutherm® is ecologically safe and contains no harmful substances.

Notice:

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.