

KlimaTec

Directions for use of climate panels KP 1000+ PRO / KP 2500+ PRO

Application
How to use
Properties



KlimaTec

PRO



ERFURT-KlimaTec – almost limitless uses in and around the house

ERFURT-KlimaTec climate panels are lighter and more flexible than gypsum board and calcium silicate panels, quick and easy to use, contribute to a healthier lifestyle, resistant to moisture and wetness, environmentally-friendly and save heating energy. This makes ERFURT-KlimaTec climate panels ideal for a wide variety of applications.

Possible uses at a glance

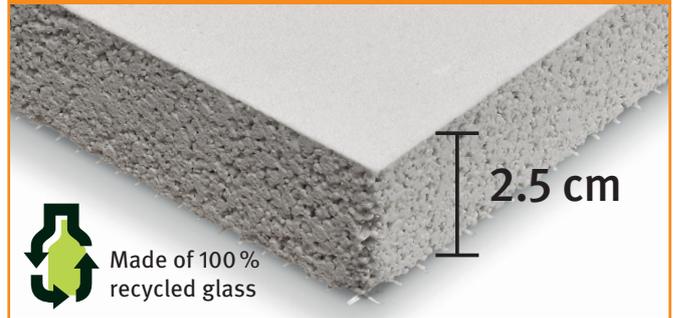
- | | |
|-----------------------------|--------------------------------------|
| ✓ Interior walls | ✓ Pre-walls in sanitary facilities |
| ✓ Partitions, room dividers | ✓ Cladding for bathtubs |
| ✓ Ceilings | ✓ Wall/ceiling cladding in wet rooms |
| ✓ Pitched roofs | ✓ Carport covers |
| ✓ Dormer roofs/cladding | ✓ Outdoor kitchens |
| ✓ Roof overhangs/soffits | ✓ Summer houses and gazebos |
| ✓ Cellars | ✓ ... and much more besides |

Two climate panels to choose from:

ERFURT-KlimaTec KP 1000+ PRO

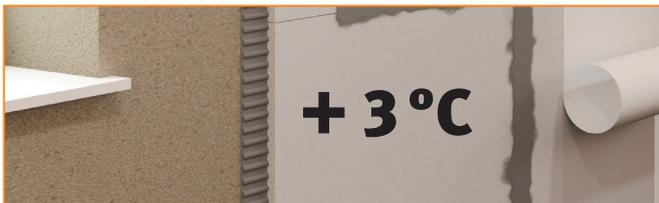


ERFURT-KlimaTec KP 2500+ PRO

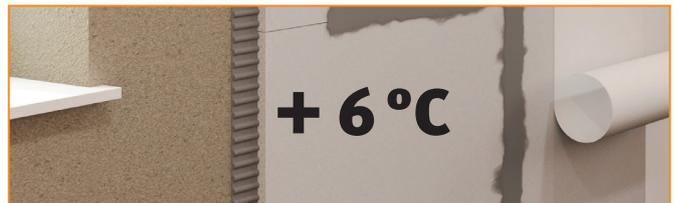


Material	Expanded glass granulate
Order number	1003053
Overall panel dimensions	120 x 80 x 1.0 cm
Total weight	approx. 5.3 kg
Water vapour diffusion sd value	approx. 0.15 m
Thermal conductivity	approx. 0.097 W/(mK)
Compressive strength according to DIN EN 826	approx. 40 kg/cm ²
pH value	approx. 9
Reaction to fire	B-s1,d0

Material	Expanded glass granulate
Order number	1001200
Overall panel dimensions	120 x 80 x 2.5 cm
Total weight	approx. 8.2 kg
Water vapour diffusion sd value	approx. 0.3 m
Thermal conductivity	0.086 W/(mK)
Compressive strength according to DIN EN 826	approx. 20 kg/cm ²
pH value	approx. 9
Reaction to fire	B-s1,d0



The **1 cm thick climate panel KP 1000+ PRO** increases the wall surface temperature by **up to 3 °C** depending on the wall construction.



The **2.5 cm thick climate panel KP 2500+ PRO** increases the wall surface temperature by **up to 6 °C** depending on the wall construction.

Unbeatable properties: ERFURT-KlimaTec climate panels KP 1000+ PRO and KP 2500+ PRO

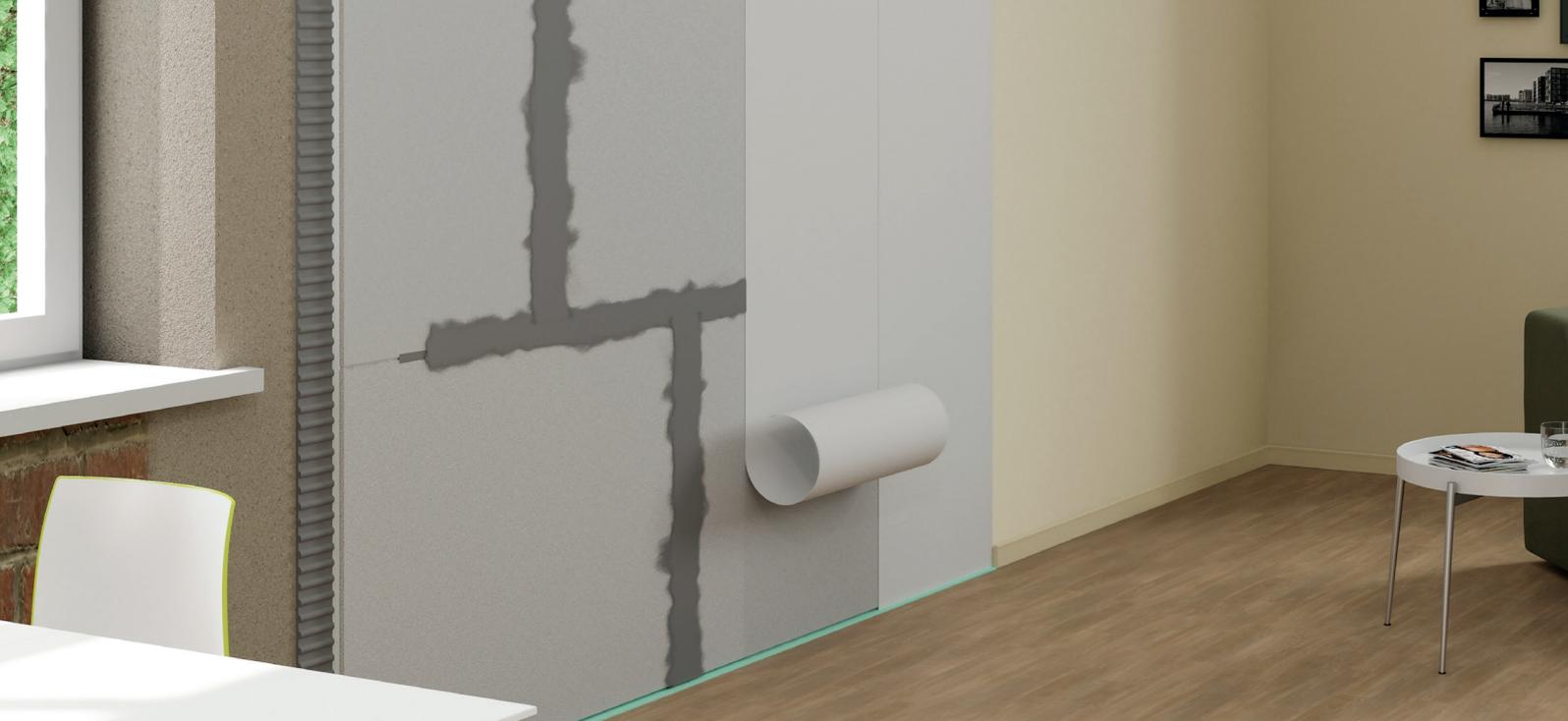
 Very easy to apply	 Lightweight	 Not a breeding ground for mould	 Sound-inhibiting	 Suitable for use in wet rooms	 Breathable
 Building material class B-s1, d0	 Easy to cut to size	 Excellent load-bearing	 Flexible	 For a healthy lifestyle	



Best applied with ERFURT-System Adhesive SR 6

Order number: 1000098
Container size: 15 kg

Consumption: approx. 2.2 kg/m² with a 10 mm toothing
Working time: approx. 30 min



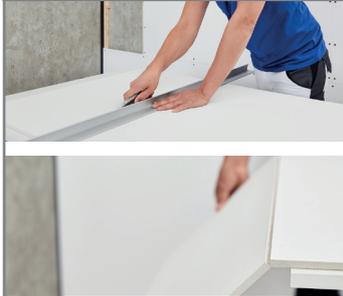
General instructions for use and handy hints for using ERFURT-KlimaTec climate panels

Please read our general instructions for use before using ERFURT-KlimaTec climate panels to obtain the best possible results.

- 1. Sealing tape**



Fit a sealing tape to the floor, ceiling, adjoining walls and all movable structures, such as windows, for acoustic and mechanical decoupling.
- 2. Cutting the climate panels**



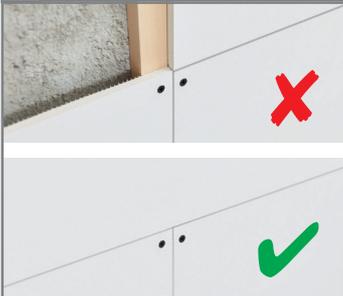
Use a Stanley knife to score the ERFURT-KlimaTec climate panel (cut through the grid on the back) and break it over an edge. Alternatively use a jigsaw.
- 3. Smoothing edges**



Smooth the edges if you need to.
- 4. Recesses**



Use a keyhole saw to cut openings for switches and sockets before fitting the panels and use appropriate air-tight back boxes (where there are problems with mould).
- 5. Cross joints**



Avoid cross joints.
- 6. Filling**



Fill and smooth over any panel joints with System Adhesive SR 6.

1

Mould prevention/ remediation



The German Federal Environment Agency provides help with mould infestation (e.g. classification into different damage categories) in its specialist brochure.



www.umweltbundesamt.de

How does mould develop?

The occurrence of mould in our living space looks unattractive but also jeopardises the health of residents. Its growth is promoted by damp walls.

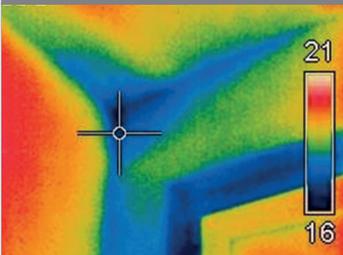
Identifying the cause



First check whether defects in the building seal could be causing damp walls and rectify them if necessary. If you have ruled out defects in the building seal, the cause must be too high

a relative air humidity and/or too low a wall surface temperature.

Cold walls are a common cause



When the room temperature is 20°C and the outside temperature is -5°C, do not allow the temperature of the wall surface to fall below 12.6°C, otherwise there is a risk of mould growth. Pay

particular attention to typical thermal bridges, such as window soffits and ledges, room corners etc.

The benefits of ERFURT-KlimaTec climate panels

Increased wall surface temperature

In addition to ensuring an adequate air supply, the specific advice is to increase the surface temperature of the walls. ERFURT-KlimaTec climate panels KP 1000+ PRO increase the surface temperature by up to 3°C, while ERFURT-KlimaTec climate panels KP 2500+ PRO increase the temperature even more by up to 6°C.

Breathable with a capillary action

ERFURT-KlimaTec climate panels are breathable and have a capillary action, meaning that any moisture in the wall can diffuse. This temporarily stores peaks of moisture, as occur in bathrooms and kitchens, and releases the moisture back into the room air by means of a capillary effect. It is therefore crucial that the final coating on ERFURT-KlimaTec climate panels is also breathable.

No creation of a breeding ground for mould

ERFURT-KlimaTec climate panels have a pH of 9. This provides additional protection against mould infestation, as it does not create a breeding ground for the mould. The benefit of this can be maximised if the final coating is also purely mineral-based.



Fully remove any mould, if necessary, before bonding ERFURT-KlimaTec climate panels to the wall. Refer to the Federal Environment Agency guidelines in this respect.

1

Mould prevention/ remediation

Mould infestation with known cause



You can often eliminate minor to medium-scale mould infestation (<math><0.5\text{ m}^2</math>, only superficial infestation) with a known cause yourself.

Mould infestation with unknown cause



Call in the services of a contractor if you do not know the cause of the mould infestation.

Applying adhesive directly to the panel



Use a toothed trowel/toothed comb to comb adhesive onto the climate panel (10 mm tothing/C5). Apply adhesive to the entire surface leaving no gaps.

Insulation wedges



The supplementary use of the insulating wedge ERFURT-KlimaTec DK 2 guarantees an increased wall surface temperature. The joint between the wall and the ceiling is filled.

Window reveals and soffits



ERFURT-KlimaTec LP 1000+ narrow soffit panels can also be used on window reveals and soffits.



Work quickly without creating dust to reduce the spread of mould spores by the air. Damp cleaning (wiping) is preferable to dry vacuuming.

2

Smoothing the base surface



Checking and levelling the base surface

Ensure that the base surface is dry, solid and firm. Prime any sandy or chalky base surfaces in advance. Please refer to the German Construction Contract Procedures (VOB) Part C 18363 Section 3!

First prime the masonry. Once the primer has dried, mix the System Adhesive SR 3 according to the instructions, cut the ERFURT-KlimaTec climate panel to size and fit the sealing strip (see page 4).



Use a spirit level to level the bottom panel.

2

Smoothing the base surface

Bonding to walls

Use a spot-bead process to apply ERFURT System Adhesive SR 6 to the ERFURT-KlimaTec climate panel with a 30-40 cm spacing between the beads of adhesive. Alternatively, use a toothed trowel/toothed comb to apply ERFURT System Adhesive SR 6 to the ERFURT-KlimaTec climate panel and fit the panel to the wall.

Then press the panel at right angles and perpendicular to the brickwork. Butt joint the ERFURT-KlimaTec climate panels to each other in an offset pattern (using a ruler or spirit level to keep them level), avoiding cross joints.



Bonding to ceilings and angled ceilings

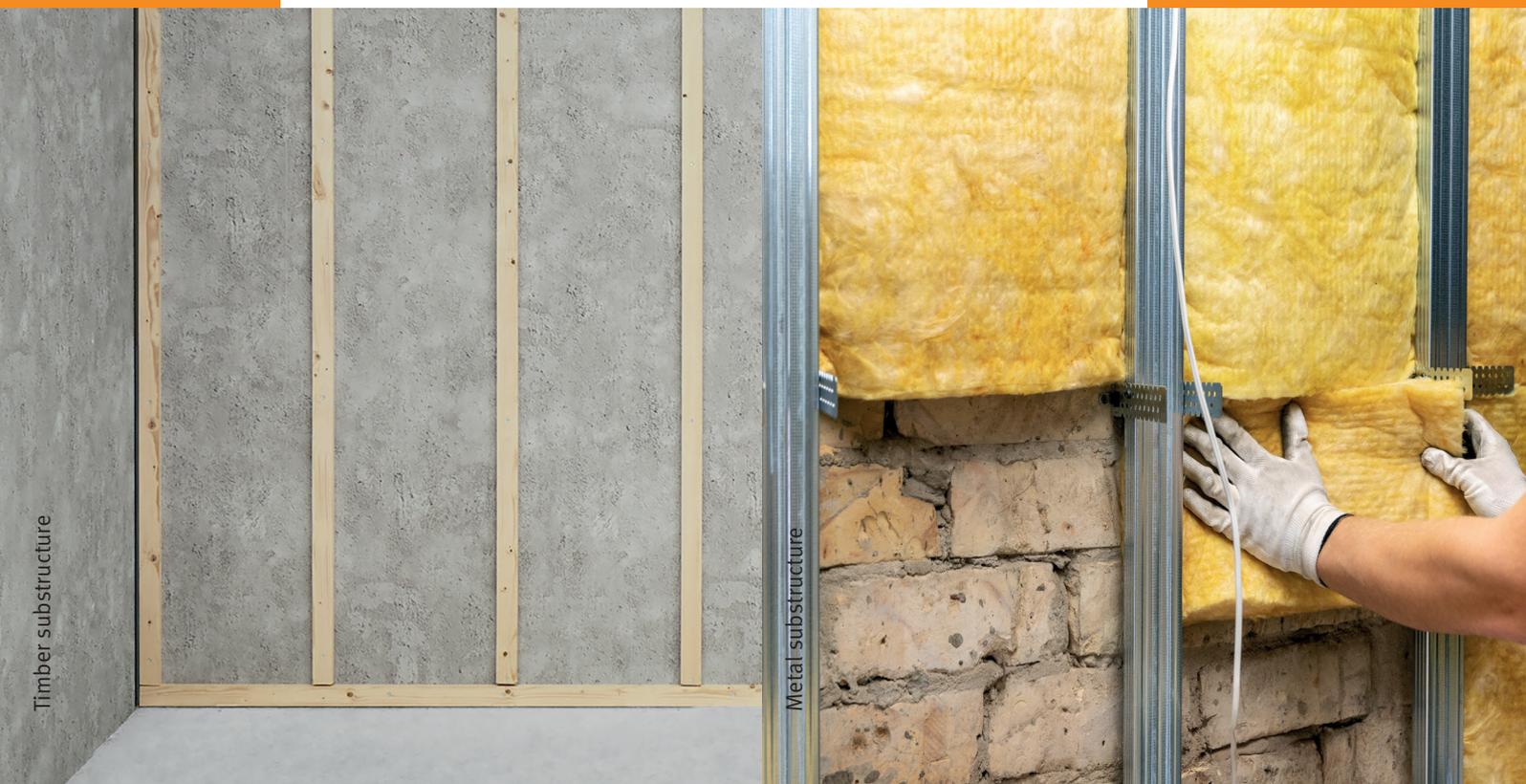
Comb ERFURT System Adhesive SR 6 (10 mm toothing/C5) to the entire surface of the ERFURT-KlimaTec climate panels and also to the ceiling surfaces to be covered if you plan to fit ERFURT-KlimaTec climate panels to the underside of solid ceiling constructions.

Then, use even pressure to float the ERFURT-KlimaTec climate panels into position and fix them permanently in place with at least two appropriate dowels (e.g. Fischer long shaft dowel SXR 8 x 60 Z with countersunk head screw) per panel. You may wish to mill down the dowel heads to countersink them into the expanded glass layer.



3

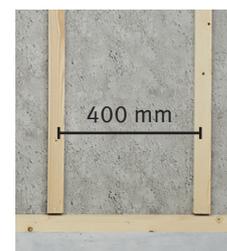
Formwork/stud walls



Installing the lathework (formwork)

Correct installation of the panel on the wall is the prerequisite for the best possible result. You can fit ERFURT-KlimaTec climate panels to both wooden and metal substructures. Do not exceed a centre-to-centre dimension of 400 mm. Use a spirit level to ensure that the wooden substructure is perpendicular.

We recommend fitting insulating material between the battens to improve acoustic and thermal insulation.



400 mm centre-to-centre dimension

Fitting the lathework (formwork)

Walls, ceilings and inside of roofs

We recommend fitting a timber substructure before cladding with the panels. Use 30 x 60 mm strips of wood. Ensure that the centre-to-centre dimension between the battens does not exceed 400 mm. When fitting, always ensure that the panel joint is in the centre of the supporting timber battens.

Cladding the wall uprights

You can use commercially available drywall screws to fix ERFURT-KlimaTec climate panels indoors.

3

Formwork/stud walls

Timber substructure (stud walls)

The substructure battens should be a minimum of class S 10 and the cross-section no less than 60 x 80 mm.

1. Attach the frame structure to the supporting wall, ceiling or floor at a maximum fixing distance of 1 m.

2. Attach the battens at a spacing of 400 mm (batten centre-to-centre dimension).



Metal substructure

Ensure that the profiles used for the metal substructure are made of a corrosion-proof material.

1. Bond a sealing strip to the rear of the frame profiles (substructure) for improved acoustic insulation.

2. Use a minimum of 3 screws/dowels to attach the individual substructure profiles to the floor and ceiling. The spacing between the fixing points should not be more than 1 metre.

3. Then attach the upright profiles with a minimum leg dimension of 50 mm (C stud) to the wall.

4. Position additional C stud profiles at the specified distance of 400 mm and crimp together with the substructure profile.



Take into account the structural requirements when cladding the inside of external walls! Contact your designer or speak to ERFURT.



Screw-fixing

A single layer of climate panels is sufficient for a stable wall construction. ERFURT-KlimaTec climate panels can also be screwed with ease to ceiling battens. Use a smaller drill to pre-drill the panels

1. Ensure that the joints of the ERFURT-KlimaTec climate panels butt against each other at the centre of the substructure profile or supporting battens.

2. It is crucial that cross joints are avoided!

3. The panels can be attached vertically or horizontally.

4. Smooth over any panel joints with System Adhesive SR 6.



Screw specification

	for metal substructure	for timber substructure
Initial cladding layer	3.9 x 25 mm fine thread, with drill tip if necessary	3.9 x 35 mm coarse thread

Screw specification

On walls	≤ 250 mm	≤ 250 mm
On ceilings	≤ 170 mm	≤ 170 mm
Edge distance	≥ 20 mm	≥ 20 mm

Cladding of OSB particle board

If you are using reinforcing OSB particle boards in your wall construction, the ERFURT-KlimaTec climate panels can be fitted directly to them with drywall screws. This ensures optimum adhesion of the surface.



Ensure that all screws are flush!



3

Formwork/stud walls



Curved wall elements

ERFURT-KlimaTec climate panels can be formed and are therefore suitable for use on bends or bathtub enclosures. Curved surfaces with a radius of ≥ 2 m can be achieved without the need for pre-treatment. We generally recommend reducing the centre-to-centre dimension (batten centre-to-centre dimension) to 200 mm to obtain an optimum result with bends. Reinforce the entire surface of the panel to obtain a surface that covers cracks.

Fixing bracket loads

Light loads (e.g. shelves) can be fixed directly to ERFURT-KlimaTec climate panels using normal cavity wall dowels and the corresponding screws without the need for an additional load-bearing substructure.

We recommend a supporting substructure (cross beams) with medium to heavy loads (e.g. suspended cabinets).

Permissible tensile force per cavity wall dowel

Dowel manufacturer: BTI Befestigungstechnik

	KP 1000+ PRO	KP 2500+ PRO
ProCon X plus 8 x 50 mm	0.3 kN	0.5 kN
UHD M5 / M6	0.4 kN	0.8 kN

Minimum spacing between fixings 40 cm. Minimum distance of fixings from panel edge 10 cm. Take into consideration the fact that the load on the screws will be increased by the lever effect with shelves and suspended cabinets.



Fundamentally the grid side is the rear side. With bends, the glass nonwoven of the climate panels is screwed to the substructure!

4

Wet areas



Resistant to wetness and moisture – ideal for use in wet rooms

ERFURT-KlimaTec climate panels are insensitive to wetness and moisture! The alkaline panel core of expanded glass combined with the mineral webbing/glass nonwoven produces a pH of 9. ERFURT-KlimaTec climate panels are thus **mould-resistant!**

They are therefore ideally suited for damp rooms with minimal exposed surfaces, such as domestic kitchens, toilets and bathrooms, or also washroom facilities or hotels with normal use.

ERFURT-KlimaTec climate panels are also ideal as supporting panels for tiles (although ERFURT-KlimaTec climate panels need to be primed in advance with a solvent-free substance).





Moisture-insensitive and frost-proof – ideal for areas not directly exposed to the weather

ERFURT-KlimaTec climate panels are insensitive to moisture and frost. They are therefore ideal for outdoor areas that are not directly exposed to the weather, such as carports, summer houses and dormer cladding, in conjunction with final coatings, including external plaster, clinker and stone.

The panelling is fitted in the same way as the indoor cladding specifications for timber or metal substructures. Outdoors, it is unfortunately not possible to bond directly to masonry.

We recommend corrosion protection when choosing the metal profiles/fixings. Fit a flexible external joint sealing tape for connections to adjoining components.

Plastering ERFURT-KlimaTec climate panels outdoors

Fully reinforce the area clad with ERFURT-KlimaTec climate panels before applying the final coating due to the influences of weathering.

1. Fit ERFURT-KlimaTec climate panels with the fibreglass nonwoven side facing inwards (unlike when used indoors).
2. Apply the reinforcing compound manually or using a machine in line with the manufacturer's instructions.
3. Embed the reinforcing webbing into the wet reinforcing compound (with an overlap of 10 cm minimum).
4. After embedding the reinforcing webbing, apply the reinforcing compound to the entire surface.
5. You can then apply a coat of commercially available outdoor surface plaster to a fully dry surface.
6. A smoothing coat of paint provides additional protection.

Versatile final coating



Final coating indoors: plaster – wallcoverings – paint

You can use commercially available coating products in line with the manufacturer's instructions to coat ERFURT-KlimaTec climate panels. We recommend a mineral-based fine filler and a mineral-based coating, e.g. silicate paints, to produce a smooth, breathable mineral surface.

Breathable wall structures

ERFURT-KlimaTec climate panels are breathable and permeable to water vapour. Use breathable building materials if you also wish to make use of these properties in a wall construction.

ERFURT-KlimaTec climate panels can be covered with all breathable wallcoverings without the need for reinforcement. Beforehand, the ERFURT-KlimaTec climate panels and joint filler need to be dry and smooth (quality class Q2/Q3). Prime ERFURT-KlimaTec climate panels with paste before wallpapering.



Use ERFURT-Rauhfaser (woodchip), ERFURT-Vlies-Rauhfaser (nonwoven woodchip), ERFURT-Vliesfaser (nonwoven) or ERFURT-Variovlies nonwoven for a breathable wall construction.



ERFURT-KlimaTec

The complete range

www.erfurt.com/klimatec



Your ERFURT-KlimaTec contact:

Dipl.-Ing. Stefan Hunke (Head of Building Technology)

Tel.: +49 202 6110 541 • E-mail: s.hunke@erfurt.com

My voucher to you: samples, sales folders, seminars

Sales folder

ERFURT-KlimaTec

Samples

KP 1000+ PRO

KP 2500+ PRO

TÜV-certified seminars

I am interested in the following events:

Professional competence technical seminar "Mould damage indoors"

Technical seminar "Interior insulation expert"

Please inform me about your next seminar dates

Company

Number of employees

First name / Last name

Address

Postcode / Town/City

Phone

Fax

E-mail

Place of birth

Date of birth

Important! The TÜV-Rhineland requires your place of birth and date of birth to issue personalised certificates. Thank you very much.

Declaration of consent:



I consent to ERFURT & SOHN KG using my data to inform me about special offers and news by post or e-mail. This data will not be disclosed to third parties.

ERFURT & SOHN KG
Stefan Hunke
Hugo-Erfurt-Str. 1
42399 Wuppertal
GERMANY

Simply complete and send off.

By fax: +49 202 6110 217, or by post!