Data Sheet

KlimAir Panel 1866

Water vapor permeable climate panel for active mold prevention, with KlimAir Wedge and KlimAir Decoupling Strip 1867, for interior use



Field of application

Interior walls using the KlimAir System achieve a comfortable room climate and prevent the formation of mold. The sorption capacity and the associated absorption and release of moisture content from the air in the room, in conjunction with the alkalinity of the overall system actively acts against the formation of mold. Can also be used as part of mold remediations, after the cause (e.g., moisture problems) has been analyzed and resolved. Can also be used as a reveal board.

Properties

- Mineral (made from expanded glass granulate)
- With high sorption capacity
- Water vapor permeable
- Prevents mold
- Alkaline
- Highly pressure resistant
- Easy to sand
- Quick and easy to apply
- Increases the wall surface temperature by up to 3°C
- In the system build-up, "schwerentflammbar B1" (flame-retardant) in accordance with DIN 4102, as per test verification
- For interior use
- Can be coated in a variety of ways

Material description

Color shade White gray

Base material Climate panel made from mineral expanded glass granulate with

nonwoven laminate on the visible side and stabilizing glass mesh on the

rear side

en Date: 22.06.2020

Bulk density Approx. 510 kg/m³

Total weight Approx. 5.3 kg/panel

Compressive strength Approx. 4 N/mm²



Material description

pH value ca. 9-10

Rated thermal conductivity λ 0.096 W/(m·K)

Reaction to fire "Schwerentflammbar B1" (flame-retardant) in accordance with DIN 4102

(applies to application on non-combustible substrates, comprising solid, mineral materials with a bulk density ≥1500 kg/m³ and a thickness ≥6 mm) in the system build-up with KlimAir Adhesive Filler 1868 and the

top coats stipulated in this Data Sheet.

Thermal resistance R Approx. 0,10 (m²·K)/W

Water-vapor-permeable Approx. 15

resistance factor μ

resistance S_d (H₂O)

Water-vapor-permeable

Approx. 0.15 m, panel thickness 10 mm (no mathematical verification of

condensation required in accordance with DIN 4108-3)

Water absorption Approx. 0.8-1.0 l/m²

Panel thickness 10 mm

Edge formation Blunt

Panel format 80 x 120 cm

Packaging 5 panels/box

Storage

Store in a cool and dry place. Store boxes and single panels carefully.

KlimAir Wedge 1866



Field of application

for interior use

Supplementary system components for the transitions to ceilings and wall surfaces, which are to be integrated when implementing the KlimAir system.

Properties

- Ensures that connecting areas are capable of sorption
- With the same properties as the KlimAir Panel 1866
- For interior use



Material description

Color shade White gray

Base material Climate panel in wedge format made from mineral expanded glass

granulate with nonwoven laminate on the visible side.

Panel format 59,5 x 39,5 cm

Thickness Tapering from 0.5 to 2.5 cm

Packaging 8 units/box

Storage

Store in a cool and dry place. Store boxes and single panels carefully.

KlimAir Decoupling Strip 1867



Self-adhesive, for interior use

Field of application

For acoustic and mechanical decoupling on floors, ceilings and walls to be integrated into the KlimAir system.

Properties

- Self-adhesive
- Made from high-quality PE foam
- Easy to cut
- For interior use

Material description

Color shade White

Base material Polyethylene

Thickness 5 mm

Height 30 mm

Packaging 25 m/roll

Storage

Store dry, at approx. 20°C and protect from solar radiation.



Decoupling

The KlimAir Panels 1866 are subject to a small hygric length changes. For this reason, before bonding the KlimAir Panels 1866, the KlimAir Decoupling Strip 1867 should be installed circumferentially, for acoustic and mechanical decoupling, on floors, ceilings, and integrated walls, as well as all movable components, e.g. windows and doors.

Pre-filling

Depending on the substrate texture of the surfaces prior to gluing, prefill with the KlimAir Adhesive Filler 1867, as required.

Bonding

Bonding is performed on an even, bondable substrate. To bond the panels apply KlimAir Adhesive Filler 1868, depending on the roughness of the substrate, with Notched Trowel 3704, 8 x 8 x 8 grooves, or Notched Trowel 3749, 10 x 10 x 10 grooves, horizontally to the wall surface. Thinly draw the adhesive filler down the rear side of the KlimAir Panels 1866 (adhesive filling) so that the glass mesh is filled. The adhesive filler can also be applied to the rear side of the panel with the notched trowel. Place the KlimAir Panels 1866 into the open adhesive bedding, within approx. 30 minutes at 20°C, 65% rel. humidity, and press down firmly or tap it into place (with e.g. Polyurethane Float 3781). Full-surface contact with the substrate must be ensured. Cavities are to be avoided. Before inserting the next panel, thinly apply KlimAir Adhesive Filler 1868 to the edges of the panels and the other KlimAir Panels as a group, with at least 20 cm offset, and butt join them. Cross joints and gaps must be absolutely avoided. Remove excess glue from the joints and edges. Using the KlimAir Wedge1866.0001 on the adjacent wall and ceiling surfaces is recommended.

Cutting to size

To cut the KlimAir Panels 1866 to size, scratch it with the Cutter Knife 1445 and break it over an edge or cut it to size with a saw. Cut out recesses for switches and sockets before gluing, using a lock saw or something similar, and insert suitable airtight flush-mounted sockets.

Filling

Fill the panel joints immediately after bonding with KlimAir Adhesive Filler 1868 and Stainless Steel Trowel 3792. The next day, after drying, any burrs and projections can be easily chipped off or removed by sanding. After drying overnight, fill the entire surface with the KlimAir Adhesive Filler 1868. Finally, make a separating cut (trowel cut) at all connecting areas.

Follow the instructions in the KlimAir Adhesive Filler 1868 Data Sheet.

Coating

After an adequate drying period, apply a vapor permeable top coat, without additional reinforcement, preferably in the system build-up with, e.g., Klimasil 1908 or the silicate interior paints Profisil 1906 and Kalisil 1909.

Consumption

Approx. 1.04 panels/m² (without cutting). 1 box (5 panels) is sufficient for approx. 4.8 m²

Application temperature

Do not apply if air or object temperature is below +5°C or above max. 30°C.

Drying (+20 °C, 65 % relative humidity)

Recoatable after drying, min. 24 hours. Depending on the substrate and situation on site. Allow longer drying times at lower temperatures and/or higher air humidity.



Coating build-up

Substrate preparation

The substrate must be level, solid, dry, clean, load-bearing, and free from efflorescences, sintered layers, separating agents, corrosion-promoting components, or other intermediate layers affecting the adhesion. Check existing coatings for their suitability, load-bearing capacity, and adhesive properties. Remove defective, unsuitable, and in particular, impermeable coatings, and dispose of them in accordance with the applicable regulations. Thoroughly wash off limepaint. Wash down intact coats of oil paints and varnishes with an alkaline solution, sand down well and clean. Remove wall coverings completely. If necessary, also fill surfaces, after appropriate pretreatment, with KlimAir 1868 Adhesive Filler. Depending on the individual requirements, prime absorbent substrates with Silicate Primer ELF 1803. See also VOB Part C, DIN 18363, Section 3.

KlimAir system build-up, interior

Substrates	Prime coat	Bonding	Top coat
Normally absorbent substrates, e.g., interior plaster ¹), concrete, intact, water vapor permeable dispersion coats		KlimAir Panel 1866 and KlimAir Wedge 1866, bonded with KlimAir Adhesive Filler 1868	Depending on the selection, water vapor permeable system build-up with e.g. Klimasil 1908, Profisil 1906 or Kalisil 1909
Highly absorbent substrates, e.g. interior plaster ¹⁾ and concrete	Fondosil 1903		

¹⁾ Minimum compressive strength > 2.0 N/mm² (Compressive strength class CS II, CS III, CS IV and B1–B7)

Notes

Moisture content and mold

Existing moisture stains and/or mold are to be properly eliminated or removed prior to bonding. In this regard, we refer you to the guide on "Zur Vorbeugung, Erfassung und Sanierung von Schimmel in Gebäuden" (For prevention, identification and remediation of mold in buildings), published by the German Federal Environment Agency. Available for download at:

https://www.umweltbundesamt.de/publikationen

Ventilation

To reduce moisture peaks in the room air, ensure sufficient and regular ventilation. To do so, comply with the Federal Environment Agency Guidebook: "Schimmel im Haus" (Mold in buildings).

Application description

There is a separate application description 7i01 for the KlimAir system, with a list of materials and tools as well as images of the individual work steps.

Further information

Follow the instructions on the data sheets of the products used.



This Data Sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

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