TECHNICAL DATA SHEET

PUTZTRÄGERLAMELLE FKL C2

1. PRODUCT DESCPRIPTION

Rock wool lamella according to DIN EN 13162.

2. FIELD OF APPLICATION

Facade lamella insulation boards for KEIM external thermal insulation composite systems in accordance with system approval:
Z-33.43-185; Z-33.41-188; Z-33.47-727; Z-33.46-1187; Z-33.49-1505
Generally approved by the building authorities for: exterior walls; soffits; basement ceilings
Suitable for: Masonry or concrete, rendered and unrendered; panel material in timber construction; ETICS upgrade system.
Application type according to DIN 4108-10: WAP-zh; DI.
The complete ETIC system is non-combustible, class A2, s1-d0 in accordance with DIN EN 13501-1. Suitable for building heights up to 100 m. Permissible building height according to the State Building Code.
Not suitable for: horizontal and inclined surfaces exposed to weathering; metallic substrates; saponifiable existing substrates
Also approved for use as a fire bar, for further information see general type approval.

3. PRODUCT PROPERTIES

- especially economical
- easy and fast processing
- both sides coated for efficient gluing and reinforcing
- applicable without dowelling (on suitable substrates with max. 1.6 kN/m² wind suction load)
- fire behaviour: non-flammable, class A1 according to EN 13501-1
- completely recyclable
- resistant to aging
- The insulation panels comply with the high standards of the VDPM e.V. (association for insulation systems, renders and mortars)
- Externally monitored by the MPA University Stuttgart
- Externally monitored by Forschungsinstitut für Wärmeschutz e.V. München

MATERIAL CHARACTERISTICS:

– CE marking code:	MW-EN 13162-T5-DS(T+)-DS(TH)-CS(Y)40-TR80-WS-WL(P)-SS20-MU1
– Rated value of thermal conductivity:	0.041 W/mK
– Nominal value of thermal conductivity λD:	0.040 W/mK
– Panel size:	1200 x 200 mm
– Panel thickness:	40 - 300 mm
– Edge formation:	square
– Bulk density according to EN 1602:	approx. 70 - 95 kg/m³
– Melting point:	< 1000 °C
– Glow tolerance according to DIN EN 16733:	no tendency to continuous smouldering
– Flow resistance per unit length:	≥ 15 kPa s/m²
– Water absorption at long-term partial immersion:	WL(P) ≤ 3,0 kg/m²
– Compressive strength:	≤ 40 kPa
– Compressive stress at 10% compression:	CS(10) ≥ 40 kPa

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– Flexural strength:	≤ 80 kPa
– Tensile strength perpendicular to the panel plane:	TR80 ≥ 80 kPa
– Colour shade:	yellow-brown

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:
The substrate must be strong, dry, clean, sound and free from adhesion-reducing residues. The permanent compatibility of any existing coatings with the adhesive mortar must be examined by an expert. Unevenness of up to 1 cm/m may be bridged. Larger unevenness must be mechanically levelled or by applying a render in accordance with DIN EN 998-1. Strongly sanding or unevenly absorbent surfaces should be primed with Indulaqua primer. Observe the Technical Data Sheet of the primer with regard to execution and dilution. The insulation panel may also be used as a basement ceiling insulation panel: Rusty steel beams or damp areas must not be covered with insulation until the cause itself has been properly remedied.

APPLICATION:
Cut to size using an insulation knife or a suitable insulation saw.

GLUING:
The insulation panels are butted tightly and glued in a bond from bottom to top. Apply the appropriate adhesive mortar to the insulation panels using the bead-and-dot method or over the entire surface. Push the boards into place. At the edges of the building, the insulation panels are glued offset For full-surface gluing, apply the system-specific adhesive mortar to the insulation panels and, if necessary, to the substrate using a 10 mm toothed trowel. Immediately float the insulation panels into the fresh mortar bed with slight pressure. The adhesive mortar may also be applied partially to the substrate. In this case at least 50% of the substrate must be covered with adhesive beads. The adhesive beads must be at least 5 cm wide and at least 1 cm thick in the center and must not exceed the center distance of 10 cm. The rock wool insulation panel must be immediately floated into the fresh adhesive mortar to achieve full-surface bonding. Closing of unavoidable defects and joints up to 5 mm wide with Iso Top Thermfoam B1 is permissible. General instruction with regard to gluing: Do not apply adhesive to the panel joints. Do not create an insulation panel joint over a joint in the substrate underneath. The insulation panel may also be used on soffits: Bridging of expansion joints and two-layer installation on ceiling undersides is not permitted. The insulation panel may also be used as a basement ceiling insulation panel: Apply Pulverkleber-90 with a notched trowel ≥ 10 mm to the full surface of the insulation panel, alternatively to the substrate, using the comb-bed method, and then float it into the adhesive bed with slight pressure. For full-surface bonding, it is recommended to apply adhesive mortar to both the insulation panel and the substrate (floating-buttering method). The insulation panels must be applied tightly to the substrate, cavities are not permissible.

DOWELING:
Check the adhesion of the insulation panels after at least 3 days. Insulation panels that are not bonded or damaged must be replaced. Anchoring is carried out in glued and dowelled ETIC systems with generally approved ETICS fasteners according to DIN EN 1991-1-4/NA. The required fastener quantity depends on the building height and the respective wind zone in which the object is located. In only glued ETIC systems, constructive anchoring with suitable ETICS anchors is permissible. For further information, please refer to our ETICS Technical Guide, Chapter #8, ETICS Wind Suction Loads. The insulation panel may also be used on soffits: Anchoring is carried out through the mesh with generally approved ETICS fasteners according to DIN EN 1991-1-4/NA. The required dowel quantity depends on the building height and the respective wind zone in which the object is located. The insulation panel may also be used as a basement ceiling insulation panel: Without fire protection requirements: The insulation panels may only be glued to new substrates up to a maximum weight per unit area of 15 kg/m² (including any final coating). In the case of insufficiently load-bearing substrates (old substrates) or if the permissible weight per unit area is exceeded, dowelling is carried out using ETICS anchors approved by the general building authorities or by the European authorities. Minimum number of anchors: 2 anchors per insulation board cut. With fire protection requirements: If necessary, dowel with the basement ceiling insulation screw DDS-Z and the basement ceiling insulation washer DDT.

REINFORCEMENT:
After a sufficient setting time of the adhesive, apply the mixed, system-specific reinforcing mortar evenly to the insulation panels, preferably with a 10 mm toothed trowel. Embed the system-specific Glasfaser-Gittermatte (glass fibre mesh), overlap

the edges by 10 cm and fill wet-in-wet with system-specific reinforcing mortar. The system-specific Glasfaser-Gittermatte should be embedded in the middle (layer thicknesses up to 6 mm) or in the upper third (layer thicknesses from 6 mm). Thickness of the reinforcement layer should be max. 3 - 15 mm. The insulation panel may also be used as a basement ceiling insulation panel: After a sufficient setting time of the adhesive, apply the mixed, system-specific reinforcing mortar evenly to the insulation panels, preferably with a 10 mm toothed trowel. Place the Glasfaser-Gittermatte (mesh), overlap edges by 10 cm and fill wet-in-wet with system-specific reinforcing mortar. The system-specific Glasfaser-Gittermatte (mesh) should be embedded in the middle. Layer thickness of the reinforcement approx. 5 mm.
Notes on the installation of field boundary joints for insulation board thicknesses < 200 mm:
The field sizes without expansion joints are 9 m x 9 m or 80 m² for thick-layer systems (underlay + finishing coat = total plaster thickness 10 mm). The field sizes without expansion joints are 50 m x 25 m for thin-layer systems (undercoat + finishing coat = total plaster thickness s 10 mm).

5. PACKAGING / TECHNICAL DATA

Panel thickness [mm]	Rated value thermal conductivity [W/mK]	m² per bundle	m² per pallet	Bundle per pallet
40	0,041	2.88	28.80	10
60	0,041	1.92	19.20	10
80	0,041	1.44	14.40	10
100	0,041	0.96	11.52	12
120	0,041	0.96	9.60	10
140	0,041	0.96	7.68	8
160	0,041	0.96	5.76	8
180	0,041	0.96	5.76	6
200	0,041	0.96	5.76	6
220	0,041	0.48	4.80	10
240	0,041	0.48	4.80	10
260	0,041	0.48	3.84	8
280	0,041	0.48	3.84	8
300	0,041	0.48	2.88	6

6. STORAGE

max. storage time	Storage conditions
no maximum storage time	dry protect against weathering

STORAGE INFORMATION:
Please note max. stacking height of 2 m. Transport packaging is not sufficient weather protection.

7. DISPOSAL

EC WASTE CODE:
Waste code: 17 06 04

8. SAFETY INSTRUCTIONS

9. CERTIFICATES & QUALITY SEALS

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.

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